

2045 CLIMATE ACTION PLAN

Draft Program Environmental Impact Report

May 2022

State Clearinghouse #2021120568

Prepared for:
County of Los Angeles
Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, California 90012

Prepared by:
Environmental Science Associates
626 Wilshire Boulevard Suite 1100
Los Angeles, California 90017



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Acronyms and Other Abbreviations

2014 Scoping Plan	<i>First Update to the Climate Change Scoping Plan</i>
2016–2040 RTP/SCS	<i>2016–2040 Regional Transportation Plan/Sustainable Communities Strategy</i>
2017 Scoping Plan	2017 Climate Change Scoping Plan Update
2020 CCAP	<i>Unincorporated Los Angeles County Community Climate Action Plan 2020</i>
2020–2045 RTP/SCS	<i>2020–2045 Regional Transportation Plan/Sustainable Communities Strategy</i>
2045 CAP	<i>2045 Los Angeles County Climate Action Plan</i>
°C	degrees Celsius
°F	degrees Fahrenheit
µg/m ³	micrograms per cubic meter
A-1	Light Agricultural zone
A-2	Heavy Agricultural zone
AB	Assembly Bill
ACCM	asbestos-containing construction materials
ADA	Americans with Disabilities Act
AFV	alternative fuel vehicle
afy	acre-feet per year
AICUZ	Air Installation Compatible Use Zone
ALUC	Airport Land Use Commission
ALUCP	airport land use compatibility plan
APS	Accessible Pedestrian Signals
AQMP	air quality management plan
AR4	Intergovernmental Panel on Climate Change Fourth Assessment Report
ARA	Agricultural Resource Area
ASBS	Area of Special Biological Significance
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ATCM	Airborne Toxic Control Measure
AVAB	Antelope Valley Air Basin
AVAQMD	Antelope Valley Air Quality Management District
B.P.	Before Present
BACT	Best Available Control Technology
basin plan	water quality control plan

Basin Plan	<i>Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watershed of Los Angeles and Ventura Counties</i>
BAT	Best Available Technology
BAU	business-as-usual
BMP	best management practice
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	California Office of Emergency Services
Cal/OSHA	California Division of Occupational Safety and Health
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CalEMA	California Emergency Management Agency
CalEPA	California Environmental Protection Agency
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historical Resources
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	climate action plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CCR	California Code of Regulations
Cd	elemental cadmium
CDFW	California Department of Fish and Wildlife
CdTe	cadmium telluride
CEC	California Energy Commission
CEO OEM	County of Los Angeles Chief Executive Office, Office of Emergency Management
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESA	California Endangered Species Act
CFR	Code of Federal Regulations

CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	units of equivalent mass of carbon dioxide
COLE	coefficient of linear extensibility
Construction General Permit	California Construction Stormwater Permit
COP26	26th Conference of Parties
County	unincorporated areas of Los Angeles County
County Planning	Los Angeles County Department of Regional Planning
CPA	Clean Power Alliance
CPUC	California Public Utilities Commission
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel(s)
dBA	A-weighted decibel(s)
DOF	California Department of Finance
DPR	Department of Parks and Recreation
Draft EIR	draft program environmental impact report
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EIR	environmental impact report
EISA	Energy Independence and Security Act
EMFs	electric and magnetic fields
EO	Executive Order
EQ Zapp	California Earthquake Hazards Zone Application
ESCP	erosion and sediment control plan
EV	electric vehicle
EVCS	electric vehicle charging station
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FHSZ	fire hazard severity zone
FHWA	Federal Highway Administration

FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FR	<i>Federal Register</i>
FTA	Federal Transit Administration
General Plan	<i>Los Angeles County General Plan 2035</i>
GHG	greenhouse gas
GPCD	gallons per capita per day
GSA	groundwater sustainability agency
GSP	groundwater sustainability plan
GWh	gigawatt-hours
GWP	global warming potential
HI	Hazard Index
HMA	Hillside Management Area
HMBP/SPCC plan	hazardous materials business plan/spill prevention control and countermeasures plan
HPO	Historic Preservation Ordinance
HQTA	High Quality Transit Area
HRA	health risk assessment
Hz	hertz
I	Interstate
IBC	International Building Code
in/sec	inches per second
Industrial General Permit	Statewide General Permit for Storm Water Discharges Associated with Industrial Activities, Order 2014-0057-DWQ
IPCC	Intergovernmental Panel on Climate Change
IRWMP	integrated regional water management plan
LA County	County of Los Angeles government
LA County DPW	County of Los Angeles Department of Public Works
LABS	City of Los Angeles Bureau of Sanitation
LACFCD	Los Angeles County Flood Control District
LACoFD	Los Angeles County Fire Department
LACSD	Los Angeles County Sanitation Districts
LADWP	City of Los Angeles Department of Water and Power
LAX	Los Angeles International Airport
L _{dn}	average A-weighted noise level during a 24-hour day
L _{eq}	equivalent sound level over a specified period of time, typically 1 hour

LESA	land evaluation and site assessment
LID	Low Impact Development
LID Standards Manual	<i>County of Los Angeles Department of Public Works Low Impact Development Standards Manual</i>
L _{max}	maximum instantaneous noise level experienced during a given period of time
L _{min}	minimum instantaneous noise level experienced during a given period of time
LOS	level of service
LRA	Local Responsibility Area
LTS	CEQA significance conclusion of less than significant
LTSM	CEQA significance conclusion of less than significant with mitigation incorporated
L _x	noise level exceeded a percentage of a specified time period (e.g., L ₅₀ = noise level exceeded 50 percent of the time)
m	meter(s)
MATES V	Multiple Air Toxics Exposure Study V
MCL	Maximum Contaminant Level
MDAB	Mojave Desert Air Basin
MERV	maximum efficiency rating value
Metro	Los Angeles County Metropolitan Transportation Authority
MLD	Most Likely Descendant
mm/s	millimeters per second
MMT	million metric tons
MMTCO _{2e}	million metric tons of carbon dioxide equivalent
MPO	metropolitan planning organization
MS4	municipal separate storm sewer system
MT	metric tons
MTBE	methyl tertiary butyl ether
MTCO _{2e}	metric tons of carbon dioxide equivalent
MWD	Metropolitan Water District of Southern California
NAAQS	national ambient air quality standards
NAGPRA	Native American Graves Protection and Repatriation Act of 1990
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act

NHTSA	National Highway Traffic Safety Administration
NPPA	Native Plant Protection Act
NO	nitric oxide
NO ₂	nitrogen dioxide
NOP	Notice of Preparation
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	U.S. Natural Resources Conservation Service
NREL	National Renewable Energy Laboratory
O-S	Open Space zone
OAERP	Operational Area Emergency Response Plan
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
OurCounty Sustainability Plan	<i>OurCounty: Los Angeles Countywide Sustainability Plan</i>
PM	particulate matter
PM _{2.5}	fine inhalable particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size
PM ₁₀	inhalable particulate matter with an aerodynamic diameter less than or equal to 10 microns in size
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PQS	professional qualifications standards
PREPARE	President's Emergency Plan for Adaptation and Resilience
Project	<i>2045 Los Angeles County Climate Action Plan</i>
PRPA	Paleontological Resources Preservation Act of 2009
Public Discussion Draft	Public discussion draft of <i>the 2045 Los Angeles County Climate Action Plan</i>
PV	photovoltaic
PVC	polyvinyl chloride
RACT SIP	Reasonably Available Control Technology—State Implementation Plan
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Act Information System
RFS	Renewable Fuel Standard

RHNA	Regional Housing Needs Allocation
RMP	risk management plan
RMS	root mean square
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	regional water quality control board
SAFE	Safer Affordable Fuel-Efficient
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SDWA	Safe Drinking Water Act
SEA	Significant Ecological Area
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SoCal Gas	Southern California Gas Company
SO _x	sulfur oxides
SP	service population
SR	State Route
SRA	State Responsibility Area
State Emergency Plan	<i>State of California Emergency Plan</i>
SU	CEQA significance conclusion of significant and unavoidable
SVP	Society of Vertebrate Paleontology
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
T-BACT	best available control technology for toxics
TAC	toxic air contaminant
TDM	Transportation Demand Management
TDS	total dissolved solids
Te	tellurium
TMDL	total maximum daily load
TOD	Transit Oriented District
TPA	Transit Priority Area

TSM	Transportation System Management
UCLA	University of California, Los Angeles
UCMP	University of California Museum of Paleontology
UNFCCC	United Nations Framework Convention on Climate Change
unincorporated areas	unincorporated areas of Los Angeles County
unincorporated County	unincorporated areas of Los Angeles County
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	urban water management plan
VdB	vibration decibel(s)
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOC	volatile organic compound
W	Watershed zone
WSA	water supply assessment
ZEV	zero-emissions vehicle
ZNE	zero net energy

EXECUTIVE SUMMARY

ES.1 Introduction

This draft program environmental impact report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and its implementing regulations (CEQA Guidelines) (California Code of Regulations Title 14, Section 15000 et seq.). In accordance with Section 15168 of the CEQA Guidelines, this Draft EIR analyzes the environmental impacts that could result from implementation of the *Los Angeles County Draft 2045 Climate Action Plan* (Draft 2045 CAP or Project) and alternatives. This Draft EIR is an informational document whose purpose is not to recommend either approval or denial, but to inform agency decision-makers and the public about the environmental impacts of the Project at a program level.

The CEQA process includes public involvement at several steps, including consultation with California Native American Tribes consistent with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1). AB 52 establishes a process for CEQA lead agencies to consult with tribes that are traditionally and culturally affiliated with a project area—here, the unincorporated areas of Los Angeles County. For this Project, the County of Los Angeles (LA County) also invited public involvement in the form of public review of the Draft 2045 CAP and as part of the CEQA scoping process. All resource areas in the CEQA Guidelines Appendix G Environmental Checklist have been analyzed either in the Initial Study (see Appendix A.2, *Initial Study*) or in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. A summary of the Draft 2045 CAP’s strategies and measures, and the environmental resource areas that could be affected by their adoption or by projects facilitating Draft 2045 CAP measures and actions, is provided in **Table ES-1, Summary of Draft 2045 CAP Measures and Affected Resource Areas**.

Informed by public involvement, the CEQA process includes preparation of this Draft EIR, which has been issued for public review and input, and preparation of a Final EIR, which will respond to comments received on the Draft EIR and will revise the Draft EIR as appropriate. The Regional Planning Commission will then consider recommending whether the LA County Board of Supervisors should certify the Final EIR and approve the 2045 CAP, following which the Board of Supervisors will consider Final EIR certification and 2045 CAP approval.

LA County will rely on this Draft EIR as it may be amended in response to input received following agency and public review of this Draft EIR, along with other information in the formal record, when it decides whether to approve the Project, approve it with modifications, or disapprove the Project. Other agencies also may rely on this document in decision-making processes for later projects facilitated by the Draft 2045 CAP. For additional details, see Section 2.9, *Required Approvals: Environmental Review and Consultation Requirements*, in Chapter 2, *Project Description*.

**TABLE ES-1
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 1: Decarbonize the Energy Supply	
<p>Measure ES1: Develop a Sunset Strategy for All Oil and Gas Operations</p>	<p>Air Quality:</p> <ul style="list-style-type: none"> • Action ES1.2 - Develop a policy that requires the examination of all active, idle, and abandoned oil wells for fugitive emissions of GHGs. Coordinate with federal and state agencies conducting fugitive emissions data. <p>Energy:</p> <ul style="list-style-type: none"> • Action ES1.1 - Collaborate with other local jurisdictions to develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities. • Action ES1.2 - Develop a policy that requires the examination of all active, idle, and abandoned oil wells for fugitive emissions of GHGs. Coordinate with federal and state agencies conducting fugitive emissions data. <p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action ES1.3 - Develop a carbon removal strategy that considers direct air capture and carbon and sequestration (CCS). • Action ES1.2 - Develop a policy that requires the examination of all active, idle, and abandoned oil wells for fugitive emissions of GHGs. Coordinate with federal and state agencies conducting fugitive emissions data. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action ES1.1 - Collaborate with other local jurisdictions to develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities.
<p>Measure ES2: Procure Zero-Carbon Electricity</p>	<p>Energy:</p> <ul style="list-style-type: none"> • Action ES2.1 - Transition all LA County facilities within unincorporated areas to Clean Power Alliance's (CPA's) 100% Green Power option, Southern California Edison's (SCE's) 100% Green Rate option, or other available 100% renewable electricity service. • Action ES2.2 – Complete enrollment of the community in CPA's 100% Green Power option or SCE's Green Rate option. <p>Air Quality:</p> <ul style="list-style-type: none"> • Action ES2.2 – Complete enrollment of the community in CPA's 100% Green Power option or SCE's Green Rate option. <p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action ES2.2 – Complete enrollment of the community in CPA's 100% Green Power option or SCE's Green Rate option.
<p>Measure ES3: Increase Renewable Energy Production</p>	<p>Energy:</p> <ul style="list-style-type: none"> • Action ES3.1 - Require rooftop solar photovoltaic (PV) for all new development. • Action ES3.2 - Install rooftop solar PV at existing buildings. • Action ES3.3 - Identify and install solar PV systems at existing viable LA County facilities and properties. • Action ES3.4 - Explore the feasibility to install community-shared solar facilities on LA County properties where opportunities exist. • Action ES3.5 - Require and incentivize renewable energy in multifamily housing for both new development and existing buildings

TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 1: Decarbonize the Energy Supply (cont.)	
Measure ES3 (cont.)	<p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action ES3.1 - Require rooftop solar photovoltaic (PV) for all new development. • Action ES3.2 - Install rooftop solar PV at existing buildings. • Action ES3.3 - Identify and install solar PV systems at existing viable LA County facilities and properties. <p>Population and Housing:</p> <ul style="list-style-type: none"> • Action ES3.4 - Explore the feasibility to install community-shared solar facilities on LA County properties where opportunities exist. • Action ES3.5 - Require and incentivize renewable energy in multifamily housing for both new development and existing buildings.
Measure ES4: Increase Energy Resilience	<p>Energy:</p> <ul style="list-style-type: none"> • Action ES4.2 - Invest in energy storage and microgrids at critical LA County facilities through CPA's Power Ready Program. • Action ES4.4 - Conduct feasibility studies to identify priority areas for solar and storage combined with building and community-scale microgrids and controls to support demand management and peak shaving to support grid resilience. Study implementation, costs, barriers, and obstacles. Adopt regulations that establish this use and standards for its development. Limiting peak energy demand can eliminate or reduce the use of high-carbon peaker plants. <p>Hazards and Hazardous Materials:</p> <ul style="list-style-type: none"> • Action ES4.1 - Develop a program to deploy community resilience hubs at scale. • Action ES4.3 - Develop a publicly accessible community energy map that identifies opportunities for deploying distributed energy resources and microgrids to improve energy resiliency. • Action ES4.4 - Conduct feasibility studies to identify priority areas for solar and storage combined with building and community-scale microgrids and controls to support demand management and peak shaving to support grid resilience. Study implementation, costs, barriers, and obstacles. Adopt regulations that establish this use and standards for its development. Limiting peak energy demand can eliminate or reduce the use of high-carbon peaker plants. • Action ES4.5 - Develop a Countywide program to promote energy efficiency and resilience measures in facilities providing critical community services.
Measure ES5: Establish GHG Requirements for New Development	<p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action ES5.1 - Identify new requirements for new development, including reach codes, ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • Action ES5.3 - Evaluate a program for reducing GHG emissions for new development that require General Plan amendments. <p>Population and Housing:</p> <ul style="list-style-type: none"> • Action ES5.1 - Identify new requirements for new development, including reach codes, ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability.

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 1: Decarbonize the Energy Supply (cont.)	
Measure ES5 (cont.)	<p>Land Use and Planning:</p> <ul style="list-style-type: none"> • <u>Action ES5.1</u> - Identify new requirements for new development, including reach codes, ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • <u>Action ES5.2</u> - Create a consistency review checklist for new development to demonstrate consistency with the 2045 CAP's strategies, measures, and actions. • <u>Action ES5.3</u> - Evaluate a program for reducing GHG emissions for new development that require General Plan amendments.
Strategy 2: Increase Densities and Diversity of Land Uses Near Transit	
Measure T1: Increase Density Near High-Quality Transit Areas	<p>Land Use and Planning:</p> <ul style="list-style-type: none"> • <u>Action T1.1</u> - Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. <p>Population and Housing:</p> <ul style="list-style-type: none"> • <u>Action T1.1</u> - Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. • <u>Action T1.2</u> - Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing.
Measure T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use	<p>Population and Housing:</p> <ul style="list-style-type: none"> • <u>Action T2.1</u> - Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT. <p>Transportation:</p> <ul style="list-style-type: none"> • <u>Action T2.1</u> - Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT.
Strategy 3: Reduce Single-Occupancy Vehicle Trips	
Measure T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips	<p>Aesthetics:</p> <ul style="list-style-type: none"> • <u>Action T3.3</u> - Enhance pedestrian and bicycle environments through energy efficient pedestrian-scale lighting and shading to promote active transportation. Build shade structures at major transit stops, such as those identified in Metro's Active Transportation Strategic Plan, prioritizing communities with high heat vulnerability. Develop and implement a Shaded Corridors Program. <p>Transportation:</p> <ul style="list-style-type: none"> • <u>Action T3.1</u> - Create a more connected and safer bikeway network by expanding bikeway facilities and implementing protected and separated lanes. • <u>Action T3.2</u> - Implement and regularly update LA County's Pedestrian Action Plan, Bicycle Master Plan, Active Transportation Plans, and Vision Zero Action Plan.

TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 3: Reduce Single-Occupancy Vehicle Trips (cont.)	
Measure T3 (cont.)	<ul style="list-style-type: none"> • Action T3.3 - Enhance pedestrian and bicycle environments through energy efficient pedestrian-scale lighting and shading to promote active transportation. Build shade structures at major transit stops, such as those identified in Metro's Active Transportation Strategic Plan, prioritizing communities with high heat vulnerability. Develop and implement a Shaded Corridors Program.
Measure T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation	<p>Transportation:</p> <ul style="list-style-type: none"> • <u>Action T4.1</u> - Expand and improve the frequency of service of County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles. • <u>Action T4.2</u> - Install bus-only lanes and signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate. • <u>Action T4.3</u> - Develop a transportation technology strategy to proactively address how evolving tech-enabled mobility options can support public transit. • <u>Action T4.4</u> - Set aside maintenance funds to ensure that public transit facilities, including stations and stops, are safe and clean to enhance the transit experience and increase ridership. • <u>Action T4.5</u> - Develop and implement a transportation demand management (TDM) ordinance that requires projects to incorporate measures such as subsidized transit passes and car share. • <u>Action T4.6</u> - Offer free transit passes for students, youth, seniors, people with disabilities, and low-income populations. • <u>Action T4.7</u> - Expand and improve LA County's Telecommuting Policy, using data gathered through the alternative work program. • <u>Action T4.8</u> - Establish temporary and permanent car-free areas. • <u>Action T4.9</u> - Develop a VMT banking or exchange program.
Measure T5: Limit and Remove Parking Minimums	<p>Transportation:</p> <ul style="list-style-type: none"> • <u>Action T5.1</u> - Implement a comprehensive parking reform strategy, which should include, but not be limited to: elimination of minimum parking requirements for all new residential units, establishment of parking maximums within one-half mile of high-quality transit stops, creation and expansion of parking benefit districts, and incentives for developers to provide less than maximum allowable parking.
Strategy 4: Institutionalize Low-Carbon Transportation	
Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales	<p>Air Quality:</p> <ul style="list-style-type: none"> • <u>Action T6.1</u> - Develop a Zero Emission Vehicle Master Plan. • <u>Action T6.2</u> - Install EVCSs at existing buildings and right-of-way infrastructure (e.g., lamp poles) throughout unincorporated Los Angeles County • <u>Action T6.3</u> - Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces • <u>Action T6.4</u> - Install EVCSs at LA County facilities and properties for public, employee, and fleet use, prioritizing locations in BIPOC and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for BIPOC and disadvantaged communities. • <u>Action T6.5</u> - Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction. • <u>Action T6.6</u> - Expand electric options for active transportation, such as electric scooters and e-bikes.

TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 4: Institutionalize Low-Carbon Transportation (cont.)	
Measure T6 (cont.)	<ul style="list-style-type: none"> • Action T6.7 - Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. <p>Energy:</p> <ul style="list-style-type: none"> • Action T6.2 - Install EVCSs at existing buildings and right-of-way infrastructure (e.g., lamp poles) throughout unincorporated Los Angeles County. • Action T6.5 – Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction. • Action T6.7 - Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. <p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action T6.1 - Develop a Zero Emission Vehicle Master Plan. • Action T6.2 - Install EVCSs at existing buildings and right-of-way infrastructure (e.g., lamp poles) throughout unincorporated Los Angeles County • Action T6.3 - Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces • Action T6.4 - Install EVCSs at LA County facilities and properties for public, employee, and fleet use, prioritizing locations in BIPOC and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for BIPOC and disadvantaged communities. • Action T6.5 - Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction. • Action T6.6 - Expand electric options for active transportation, such as electric scooters and e-bikes. • Action T6.7 - Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. <p>Hydrology and Water Quality:</p> <ul style="list-style-type: none"> • Action T6.7 - Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action T6.1 - Develop a Zero Emission Vehicle Master Plan. • Action T6.3 - Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces. • Action T6.4 - Install EVCSs at LA County facilities and properties for public, employee, and fleet use, prioritizing locations in BIPOC and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for BIPOC and disadvantaged communities. <p>Transportation:</p> <ul style="list-style-type: none"> • Action T6.6 - Expand electric options for active transportation, such as electric scooters and e-bikes.

TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 4: Institutionalize Low-Carbon Transportation (cont.)	
Measure T6 (cont.)	<p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • Action T6.1 - Develop a Zero Emission Vehicle Master Plan. • Action T6.2 - Install EVCSs at existing buildings and right-of-way infrastructure (e.g., lamp poles) throughout unincorporated Los Angeles County • Action T6.3 - Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces • Action T6.4 - Install EVCSs at LA County facilities and properties for public, employee, and fleet use, prioritizing locations in BIPOC and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for BIPOC and disadvantaged communities. • Action T6.5 - Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction. • Action T6.6 - Expand electric options for active transportation, such as electric scooters and e-bikes. • Action T6.7 - Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles.
Measure T7: Electrify LA County Fleet Vehicles	<p>Air Quality:</p> <ul style="list-style-type: none"> • Action T7.1 - Electrify the LA County bus fleet, inmate transfer fleet, and shuttles, and partner with transit agencies for group purchasing and siting of shared charging and/or fueling infrastructure. • Action T7.2 - Electrify light-duty LA County fleet vehicles. <p>Energy:</p> <ul style="list-style-type: none"> • Action T7.1 - Electrify the LA County bus fleet, inmate transfer fleet, and shuttles, and partner with transit agencies for group purchasing and siting of shared charging and/or fueling infrastructure. • Action T7.2 - Electrify light-duty LA County fleet vehicles. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • Action T7.1 - Electrify the LA County bus fleet, inmate transfer fleet, and shuttles, and partner with transit agencies for group purchasing and siting of shared charging and/or fueling infrastructure. • Action T7.2 - Electrify light-duty LA County fleet vehicles.
Measure T8: Accelerate Freight Decarbonization	<p>Air Quality:</p> <ul style="list-style-type: none"> • Action T8.1 - Implement freight decarbonization technologies along highway corridors passing through unincorporated Los Angeles County communities through programs such as zero-emission delivery zones. • Action T8.2 - Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure. • Action T8.3 - Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale. • Action T8.4 - Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles.

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 4: Institutionalize Low-Carbon Transportation (cont.)	
Measure T8 (cont.)	<p>GHG Emissions:</p> <ul style="list-style-type: none"> • <u>Action T8.1</u> - Implement freight decarbonization technologies along highway corridors passing through unincorporated Los Angeles County communities through programs such as zero-emission delivery zones. • <u>Action T8.2</u> - Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure. • <u>Action T8.3</u> - Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale. • <u>Action T8.4</u> - Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • <u>Action T8.2</u> - Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure. • <u>Action T8.3</u> - Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale. • <u>Action T8.4</u> - Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • <u>Action T8.2</u> - Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure. • <u>Action T8.3</u> - Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale.
Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment	<p>Air Quality:</p> <ul style="list-style-type: none"> • <u>Action T9.1</u> – Partner with the South Coast Air Quality Management District and Antelope Valley Air Quality Management District to increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment. • <u>Action T9.2</u> – Identify types of ZEV equipment and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval. • <u>Action T9.3</u> – Require, to the maximum extent feasible, the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment for LA County projects. <p>Hydrology and Water Quality:</p> <ul style="list-style-type: none"> • <u>Action T9.2</u> – Identify types of ZEV equipment and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • <u>Action T9.2</u> – Identify types of ZEV equipment and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval.

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 5: Decarbonize Buildings	
<p>Measure E1: Transition Existing Buildings to All-Electric</p>	<p>Energy:</p> <ul style="list-style-type: none"> • <u>Action E1.1</u> – Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require electric water and space heating. Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale. • <u>Action E1.2</u> – Increase alternatives to natural gas uses, such as for cooking, in existing buildings. Establish carbon intensity limits for existing nonresidential and residential buildings over a certain size. • <u>Action E1.3</u> – Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits. • <u>Action E1.4</u> – Create a plan for phased electrification of LA County facilities. Phase out gas-powered infrastructure and appliances as they need replacement. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • <u>Action E1.1</u> – Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require electric water and space heating. Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale. • <u>Action E1.3</u> – Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits. <p>Population and Housing:</p> <ul style="list-style-type: none"> • <u>Action E1.5</u> – Create a comprehensive fund aggregation program to support energy efficiency, decarbonization and resilience in new and existing affordable housing. • <u>Action E1.6</u> – Create an energy retrofit accelerator to provide a one-stop shop for guidance, technical support, training, and access to aggregated funds to support building owners and contractors. Target support to low-income communities and affordable housing. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • <u>Action E1.1</u> – Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require electric water and space heating. Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale. • <u>Action E1.2</u> – Increase alternatives to natural gas uses, such as for cooking, in existing buildings. Establish carbon intensity limits for existing nonresidential and residential buildings over a certain size. • <u>Action E1.3</u> – Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits. • <u>Action E1.4</u> – Create a plan for phased electrification of LA County facilities. Phase out gas-powered infrastructure and appliances as they need replacement.
<p>Measure E2: Standardize All-Electric New Development</p>	<p>Energy:</p> <ul style="list-style-type: none"> • <u>Action E2.1</u> – Adopt an ordinance requiring all new buildings to be fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • <u>Action E2.2</u> – Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost.

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 5: Decarbonize Buildings (cont.)	
Measure E2 (cont.)	<ul style="list-style-type: none"> • Action E2.3 – Adopt CALGreen Code Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action E2.1 – Adopt an ordinance requiring all new buildings to be fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • Action E2.2 – Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost. • Action E2.3 – Adopt CALGreen Code Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments. <p>Population and Housing:</p> <ul style="list-style-type: none"> • Action E2.1 – Adopt an ordinance requiring all new buildings to be fully electric with no natural gas hookups. Include affordable housing. Provide affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • Action E2.2 – Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • Action E2.1 – Adopt an ordinance requiring all new buildings to be fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • Action E2.2 – Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost.
Measure E3: Other Decarbonization Actions	<p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action E3.4 – Develop a refrigerant management program that establishes a phase-out timeline for high-GWP refrigerants in existing buildings, incentivizes industrial equipment replacement, and specifies requirements for new development to use low-GWP refrigerants. <p>Energy:</p> <ul style="list-style-type: none"> • Action E3.1 – Work with utilities to incorporate increasing levels of biomethane into the natural gas mix. • Action E3.3 – Adopt reach code requirements that include performance standards to limit the amount of embodied carbon associated with construction. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action E3.2 – Adopt a concrete code for new construction that limits embodied carbon emissions; specify code requirements of carbon intensity limit for concrete. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • Action E3.1 – Work with utilities to incorporate increasing levels of biomethane into the natural gas mix.

TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 6: Improve Efficiency of Existing Building Energy Use	
Measure E4: Improve Energy Efficiency of Existing Buildings	<p>Energy:</p> <ul style="list-style-type: none"> • <u>Action E4.1</u> – Adopt Building Performance Standards for energy efficiency in existing buildings. Require all buildings to perform energy efficiency retrofits at the point of sale. Expand and enhance the energy efficiency programs offered by the Southern California Regional Energy Network (SoCalREN). Include affordable housing considerations in these requirements, and develop additional renter protections and supporting measures (financial support, technical assistance, or other incentives) to limit the amount of first costs being passed on to low-income renters. (See Actions E1.5 and E1.6.) • <u>Action E4.2</u> – Adopt an energy efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their energy use and demonstrate their pathway to efficiency. • <u>Action E4.3</u> – Convert existing LA County–owned heat-trapping surfaces to cool or green surfaces. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • <u>Action E4.1</u> – Adopt Building Performance Standards for energy efficiency in existing buildings. Require all buildings to perform energy efficiency retrofits at the point of sale. Expand and enhance the energy efficiency programs offered by the Southern California Regional Energy Network (SoCalREN). Include affordable housing considerations in these requirements, and develop additional renter protections and supporting measures (financial support, technical assistance, or other incentives) to limit the amount of first costs being passed on to low-income renters. (See Actions E1.5 and E1.6.) • <u>Action E4.2</u> – Adopt an energy efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their energy use and demonstrate their pathway to efficiency.
Strategy 7: Conserve Water	
Measure E5: Increase Use of Recycled Water and Gray Water Systems	<p>Hydrology and Water Quality:</p> <ul style="list-style-type: none"> • <u>Action E5.1</u> – Require dual waste piping to be installed in new residential developments to allow for future graywater irrigation systems. • <u>Action E5.2</u> – Require the use of recycled water and gray water for agricultural purposes where recycled water is available. Identify soil and water conservation best management practices for agricultural uses. Work with LACSD and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. • <u>Action E5.3</u> – Require the use of recycled water and gray water for industrial purposes where recycled water is available. Identify water conservation best management practices for industrial uses. Work with LACSD and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. • <u>Action E5.4</u> – Partner with LA County water districts and retail suppliers to explore the potential for widespread utilization of direct potable reuse through pilot projects. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • <u>Action E5.2</u> – Require the use of recycled water and gray water for agricultural purposes where recycled water is available. Identify soil and water conservation best management practices for agricultural uses. Work with LACSD and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. • <u>Action E5.3</u> – Require the use of recycled water and gray water for industrial purposes where recycled water is available. Identify water conservation best management practices for industrial uses. Work with LACSD and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. • <u>Action E5.4</u> – Partner with LA County water districts and retail suppliers to explore the potential for widespread utilization of direct potable reuse through pilot projects.

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 7: Conserve Water (cont.)	
Measure E6: Reduce Indoor and Outdoor Water Consumption (cont.)	<p>Hydrology and Water Quality:</p> <ul style="list-style-type: none"> • <u>Action E6.3</u> – Incentivize residents to replace water-intensive landscaping, such as grasses, with water-conserving landscaping through a new ordinance along with education and incentive programs. • <u>Action E6.4</u> – Implement strategies to improve water efficiency at LA County facilities. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • <u>Action E6.1</u> - Develop a net-zero water ordinance for new greenfield development. Develop a water conservation ordinance for new development (public and private). • <u>Action E6.2</u> – Adopt a water efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their water use and demonstrate their pathway to efficiency. <p>Population and Housing:</p> <ul style="list-style-type: none"> • <u>Action E6.5</u> – Integrate water related programs into LA County’s affordable housing preservation program to protect the housing affordability of units and to keep the units fit for their purpose in a changing climate.
Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream	
Measure W1: Institutionalize Sustainable Waste Systems and Practices	<p>Hazards and Hazardous Materials:</p> <ul style="list-style-type: none"> • <u>Action W1.1</u> – Identify best practice waste pricing programs to reduce waste generation to the maximum extent feasible, including but not limited to differential prices for waste based on amount generated in the residential sector and reforms to tipping rate structures. • <u>Action W1.2</u> – Implement, enforce, and expand to the maximum extent feasible the single-use plastics ordinance. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • <u>Action W1.3</u> – Increase the diversion requirements in LA County’s Construction and Demolition Debris Ordinance and allow the use of recycled construction materials in new projects.
Measure W2: Increase Organic Waste Diversion	<p>Land Use and Planning:</p> <ul style="list-style-type: none"> • <u>Action W2.1</u> – Adopt a mandatory composting ordinance that requires all persons in the County, including residents, building owners, and tenants, to keep recyclables, compostables, and trash separated. Require organics generators to properly manage organic waste through this ordinance. • <u>Action W2.2</u> – Develop organic waste collection, management, and diversion programs for constituents in unincorporated communities and all LA County operations; establish a contamination monitoring plan for organic waste programs. • <u>Action W2.3</u> – Collaborate with the LA County Sanitation Districts and other waste and wastewater service providers to utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel (electricity and/or biomethane) from newly diverted organic waste. Develop a strategy for using bioenergy created from recycled organic waste. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • <u>Action W2.2</u> – Develop organic waste collection, management, and diversion programs for constituents in unincorporated communities and all LA County operations; establish a contamination monitoring plan for organic waste programs.

TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS

Draft 2045 CAP Strategies and Measures	Implementing Actions and Primarily Affected Resource Areas
Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream (cont.)	
Measure W2 (cont.)	<ul style="list-style-type: none"> • <u>Action W2.3</u> – Collaborate with the LA County Sanitation Districts and other waste and wastewater service providers to utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel (electricity and/or biomethane) from newly diverted organic waste. Develop a strategy for using bioenergy created from recycled organic waste. • <u>Action W2.5</u> – Enhance and expand LA County's existing Food DROP food donation and redistribution program to divert edible food from landfills and make it available to food insecure communities.
Strategy 9: Conserve Forests and Working Lands	
Measure A1: Conserve Agricultural and Working Lands, Forest Lands, and Wildlands	<p>Agriculture and Forestry:</p> <ul style="list-style-type: none"> • <u>Action A1.1</u> – Develop an open space conservation and land acquisition strategy to conserve lands for carbon sequestration. • <u>Action A1.2</u> – Employ vegetation management of wildlands to reduce wildfire risk and prevent carbon loss in forest lands. <p>Wildfire:</p> <ul style="list-style-type: none"> • <u>Action A1.2</u> – Employ vegetation management of wildlands to reduce wildfire risk and prevent carbon loss in forest lands.
Strategy 10: Sequester Carbon and Implement Sustainable Agriculture	
Measure A2: Support Regenerative Agriculture	<p>Agriculture and Forestry:</p> <ul style="list-style-type: none"> • <u>Action A2.1</u> – Create fallow and field resting incentives to reduce bare-fallow land by adding cover crops and promoting crop rotation for active agricultural sites to improve soil quality and limit risks of nutrient erosion, pollutant runoff, and yield reduction. Create a carbon farming plan with the primary objectives of carbon removal and regenerative agriculture. • <u>Action A2.2</u> – Provide compost and/or organic or nonsynthetic fertilizer to farmers free of charge or at a discounted rate. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • <u>Action A2.2</u> – Provide compost and/or organic or nonsynthetic fertilizer to farmers free of charge or at a discounted rate.
Measure A3: Expand the County's Tree Canopy and Green Spaces	<p>Agriculture and Forestry Resources:</p> <ul style="list-style-type: none"> • <u>Action A3.1</u> – Create and implement an equitable Urban Forest Management Plan that prioritizes: (1) tree- and parks-poor communities; (2) climate- and watershed-appropriate and drought/pest-resistant vegetation; (3) appropriate watering, maintenance, and disposal practices; (4) provision of shade; and (5) biodiversity. • <u>Action A3.2</u> - Expand County tree planting both in the public right-of-way and on private property.

NOTES:

BIPOC = Black, Indigenous, People of Color; CALGreen Code = California Green Building Standards Code; CCS = capture and carbon and sequestration; Countywide = Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; CPA = Clean Power Alliance; Draft 2045 CAP = *Draft 2045 Los Angeles County Climate Action Plan*; EV = electric vehicle; EVCS = electric vehicle charging station; GHG = greenhouse gas; GWP = global warming potential; LA County = County of Los Angeles; LACSD = Los Angeles County Sanitation Districts; Metro = Los Angeles County Metropolitan Transportation Authority; PEV = plug-in electric vehicle; PV = photovoltaic; SCE = Southern California Edison; SoCalREN = Southern California Regional Energy Network; TDM = Transportation Demand Management; VMT = vehicle miles traveled

SOURCE: Draft 2045 CAP

ES.2 Project Summary

ES.2.1 Project Overview

Approval of the Draft 2045 CAP would require an amendment to the *Los Angeles County General Plan 2035* (General Plan) to replace the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP), an implementing component of the General Plan's Air Quality Element.

In early 2020, the Los Angeles County Department of Regional Planning released a public discussion draft of the Draft 2045 CAP. After receiving significant comments from stakeholders, LA County determined the need to substantially revise and update the public discussion draft. Revisions to the public discussion draft that are reflected in the Draft 2045 CAP include the following:

- An updated greenhouse gas (GHG) emissions inventory for 2018.
- New emissions forecasts for 2030, 2035, and 2045.
- New GHG emissions targets for 2030 and 2035, and an aspirational goal of carbon neutrality for 2045.
- A revised suite of GHG emissions reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable.
- A technical modeling appendix to explain the Draft 2045 CAP's GHG emissions reduction estimates.
- A consideration of environmental justice and equity concerns.
- A new development review consistency checklist to allow projects to streamline CEQA compliance by using the Draft 2045 CAP, per CEQA Guidelines Section 15183.5.

ES.2.2 Project Objectives

From Executive Order S-3-05, which expressed the intent of the State of California in 2005 to address the issue of climate change through reducing GHGs, to AB 32 and other more recent legislative and other governmental actions, two things are clear: (1) Preventing or mitigating climate change is a key component of the state's sustainable future, and (2) local governments play a key role in reducing communitywide emissions with their control over local land use planning. In 2016, for example, Senate Bill (SB) 32 and its companion bill, AB 197, established a new statewide GHG emissions reduction target of 40 percent below 1990 levels by 2030 and included provisions to ensure that the benefits of state climate policies accrue to disadvantaged communities.

In response to the state's efforts, LA County is preparing the Draft 2045 CAP with the following objectives:

- (1) Identify appropriate GHG emissions reduction targets that closely align with state and local climate goals.

- (2) Provide a road map to achieve GHG reductions to meet the GHG emissions reduction targets.
- (3) Encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan.
- (4) Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (serve as a “qualified CAP”) via a Draft 2045 CAP Consistency Checklist.
- (5) Implement climate action policies of the General Plan (which are summarized in Section 2.2.1, *Relationship to the Los Angeles County General Plan*, in Chapter 2, *Project Description*).

ES.2.3 Project Location

Los Angeles County stretches along 75 miles of the Pacific coast of Southern California. It is bordered to the south by Orange County, to the east by San Bernardino County, to the north by Kern County, and to the west by Ventura County. Los Angeles County includes two offshore islands: Santa Catalina Island and San Clemente Island. The Draft 2045 CAP would be implemented in all unincorporated areas of the County, which make up an approximately 1,696,000-acre (approximately 2,650-square-mile) area that is approximately 65 percent of the total land area of Los Angeles County. See **Figure ES-1**, *Map of Unincorporated Los Angeles County*.

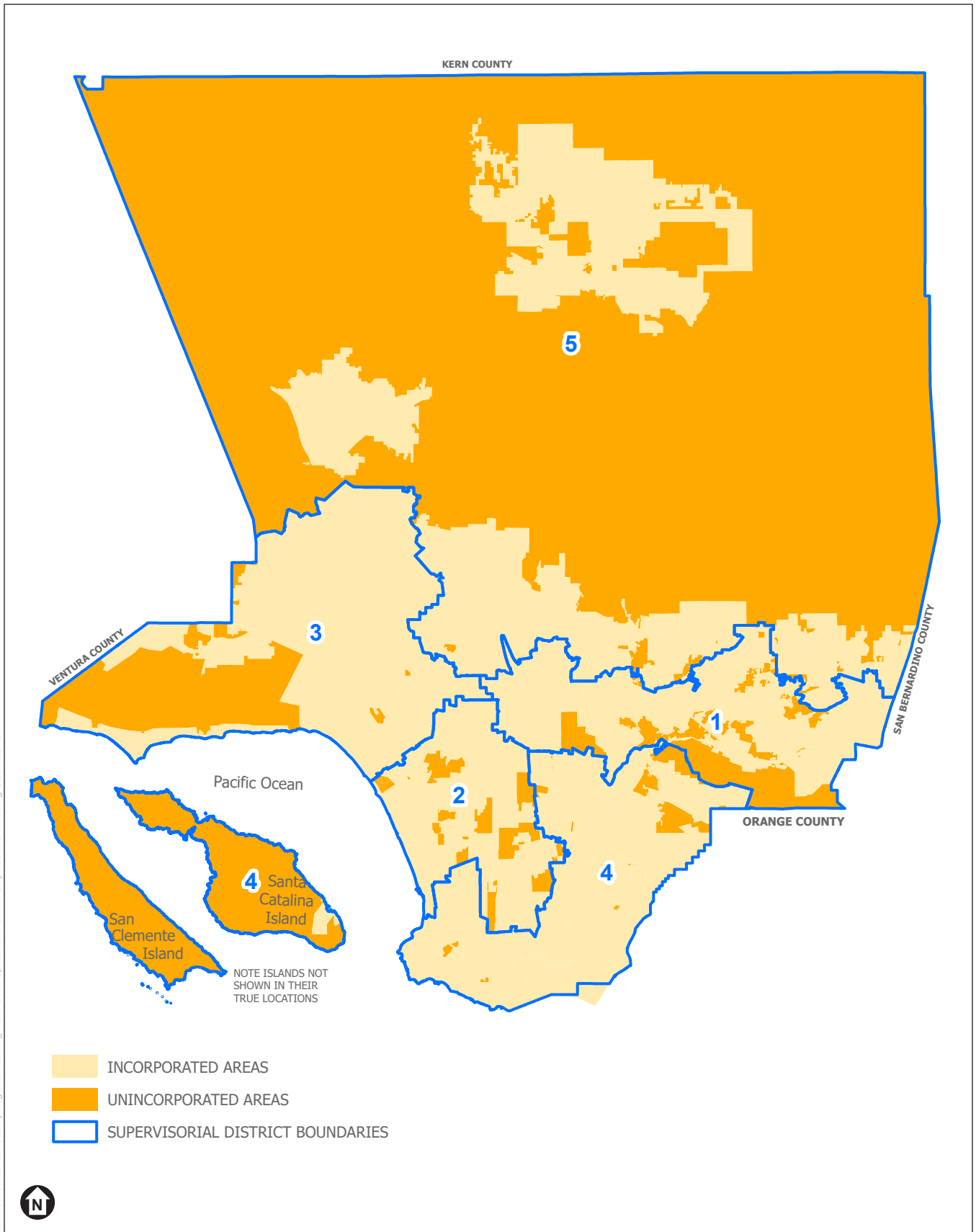
The unincorporated areas in the northern portion of Los Angeles County include Angeles National Forest, parts of Los Padres National Forest and the Mojave Desert, and the Antelope Valley. In the western portion of the county, the unincorporated areas include Marina del Rey and the Santa Monica Mountains. The unincorporated areas in the southern and eastern portions consist of noncontiguous land areas including unincorporated areas in South Los Angeles, East Los Angeles, and the San Gabriel Valley.

ES.3 Project Impacts and Mitigation Measures

Section 3.1, *Introduction to Environmental Analysis*, in Chapter 3 introduces key topics and concepts to establish a common understanding of the approach to the environmental analysis undertaken in this EIR. Sections 3.2 through 3.18 provide an overview of the setting; analyze the impacts of the Project; and identify mitigation measures designed to reduce potential significant impacts below established thresholds.

ES 3.1 Impacts and Mitigation Measures

Table ES-2, *Summary of Impacts and Mitigation Measures*, summarizes the Draft 2045 CAP’s environmental impacts, lists mitigation measures for significant impacts, and for each impact indicates levels of significance after mitigation.



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SOURCE: Los Angeles County Climate Action Plan
March 2020 Public Review Draft

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure ES-1
Map of Unincorporated Los Angeles County



**TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Aesthetics		
Impact 3.2-1: Projects facilitated by the Draft 2045 CAP would have a substantial adverse effect on a scenic vista.	Mitigation: No feasible mitigation measures are available to reduce impacts.	Significant and Unavoidable
Impact 3.2-2: Projects facilitated by the Draft 2045 CAP would be visible from or obstruct views from a regional riding, hiking, or multi-use trail.	<p>Mitigation Measure 3.2-1, Alternative Design: Sponsors of any project facilitated by the Draft 2045 CAP that would be visible from or obstruct views from a regional riding, hiking, or multiuse trail shall identify and protect views and significant landscape features or landforms visible from such a trail and shall implement project-specific mitigation as applicable. If it is determined that a project would obstruct scenic views, LA County shall (and other implementing state or local agencies can and should) consider alternative designs that seek to avoid and/or minimize obstruction of scenic views. Project-specific design measures may include reduction in height of improvements or width of improvements to reduce obstruction of views, or relocation of improvements to reduce obstruction of views. LA County shall (and other implementing state or local agencies can and should) consider taking the following (or equivalent) actions: i) Require that the scale and massing of new development provide appropriate transitions in structure height and bulk that are sensitive to the physical and visual character of the affected area; ii) ensure structure heights are stepped back from sensitive adjoining uses to maintain appropriate transitions in scale and to protect scenic views; iii) avoid siting electric towers, solar power facilities, wind power facilities, communication transmission facilities and/or above ground lines where they could obstruct views from a regional riding, hiking, or multiuse trail or along scenic roadways and routes; and iv) prohibit projects and activities that would obscure, detract from, or negatively affect the quality of views from designated regional trails or scenic highways.</p> <p>Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures: To partially screen views of projects facilitated by Draft 2045 CAP measures and actions in locations where they would be visible from publicly accessible vantage points, LA County shall (and other implementing state or local agencies can and should) require if feasible and effective the construction of a berm of sufficient height to provide a visual transition from ground level to surrounding hills or ridgelines. The color of proposed building facades and roofs shall be designed to minimize the potential for visual contrast between the project elements and their natural landscape surroundings. Bright or very light colors (including white) shall be avoided. Re-contouring and revegetation of temporarily disturbed, graded areas shall be completed to provide a natural appearing landform upon completion of construction.</p>	Significant and Unavoidable
Impact 3.2-3: Projects facilitated by the Draft 2045 CAP would substantially damage scenic resources, including, but not limited to, trees, rocks, outcropping, and historic building within a state scenic highway.	Mitigation: Implement Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures.	Significant and Unavoidable
Impact 3.2-4: Projects facilitated by the Draft 2045 CAP would substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations of governing scenic quality. (Public views are those that are experienced from a publicly accessible vantage point.)	Mitigation: Implement Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2.	Significant and Unavoidable

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Aesthetics (cont.)		
Impact 3.2-5: Projects facilitated by the Draft 2045 CAP would create a new source of substantial shadow, light, or glare, which would adversely affect day or nighttime views in the area.	Mitigation Measure 3.2-3, Reduce Light and Glare Impacts: To reduce significant light and glare impacts of projects facilitated by the Draft 2045 CAP, LA County shall (and other implementing state or local agencies can and should) shall require the following measures to be incorporated: a) All lighting shall be focused toward the site and outdoor lighting shall be directed downward; b) The design of exterior light fixtures shall incorporate shielding to prevent glare and offsite light spillage; and c) Outdoor lighting shall include non-glare fixtures.	Less than Significant
Impact 3.2-6: Projects facilitated by the Draft 2045 CAP would cause or contribute to a significant cumulative impact to scenic vistas.	Mitigation: No feasible mitigation measures are available to reduce impacts.	Significant and Unavoidable
Impact 3.2-7: Projects facilitated by the Draft 2045 CAP would cause or contribute to significant cumulative impacts on views from a regional riding, hiking, or multi-use trail.	Mitigation: Implement Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2.	Significant and Unavoidable
Impact 3.2-8: Projects facilitated by the Draft 2045 CAP would cause or contribute to a significant cumulative impact due to substantial cumulative damage to scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic building within a state scenic highway.	Mitigation: Implement Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2.	Significant and Unavoidable
Impact 3.2-9: Projects facilitated by the Draft 2045 CAP would cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations of governing scenic quality.	Mitigation: Implement and Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2.	Significant and Unavoidable
Impact 3.2-10: Projects facilitated by the Draft 2045 CAP would not cause or contribute to a new source of substantial shadow, light or glare, which would result in a significant cumulative impact to views in the area.	Mitigation: Implement Mitigation Measure 3.2-3.	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Agriculture and Forestry		
Impact 3.3-1: Projects facilitated by the Draft 2045 CAP would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	Mitigation Measure 3.3-1: Avoidance of Undeveloped Lands When Siting Utility-Scale Solar Development. To reduce the impacts of converting Farmland in physical use for agriculture to nonagricultural uses, LA County shall (and other implementing state or local agencies can and should) encourage renewable energy development on current and formerly contaminated lands, landfills, and mine sites when such development is consistent with General Plan and zoning requirements for the site.	Significant and Unavoidable
Impact 3.3-2: Projects facilitated by the Draft 2045 CAP would conflict with the existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract.	Mitigation: Implement Mitigation Measure 3.3-1.	Significant and Unavoidable
Impact 3.3-3: Projects facilitated by the Draft 2045 CAP would not conflict with the existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g)).	None required.	Less than Significant
Impact 3.3-4: Projects facilitated by the Draft 2045 CAP would not result in the loss of forest land or conversion of forest land to non-forest use.	None required.	Less than Significant
Impact 3.3-5: Projects facilitated by the Draft 2045 CAP would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.	Mitigation: Implement Mitigation Measure 3.3-1.	Significant and Unavoidable
Impact 3.3-6: Projects facilitated by the Draft 2045 CAP would result in a significant cumulative impact related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use.	Mitigation: Implement Mitigation Measure 3.3-1.	Significant and Unavoidable

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Agriculture and Forestry (cont.)		
Impact 3.3-7: Projects facilitated by the Draft 2045 CAP would result in a cumulative significant impact related to conflicts with existing zoning for agricultural use, or with a designated Agricultural Resource Area.	Mitigation: Implement Mitigation Measure 3.3-1.	Significant and Unavoidable
Impact 3.3-8: Projects facilitated by the Draft 2045 CAP would not conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.	None required.	Less than Significant
Impact 3.3-9: Projects facilitated by the Draft 2045 CAP would not result in the loss of forest land or conversion of forest land to non-forest use.	None required.	Less than Significant
Impact 3.3-10: Projects facilitated by the Draft 2045 CAP would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland.	Mitigation: Implement Mitigation Measure 3.3-1.	Significant and Unavoidable
Air Quality		
Impact 3.4-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would conflict with or obstruct implementation of the applicable air quality plan.	<p>Mitigation Measure 3.4-1: Construction Emissions. If, during subsequent project-level environmental review, construction-related criteria air pollutants are determined to have the potential to exceed the applicable air quality management district (AQMD) adopted thresholds of significance, the lead agency shall require applicants for new projects facilitated by the Draft 2045 CAP measures and actions to incorporate mitigation measures to avoid or reduce air pollutant emissions during construction activities. Mitigation measures that may be identified during the environmental review include, but are not limited to:</p> <ul style="list-style-type: none"> • When wind gusts exceed 25 miles per hour, cease all active construction activities or follow the applicable guidelines outlined in Table 3 of SCAQMD Rule 403 or Sections (C)(10) through (C)(14) of AVAQMD Rule 403. • Use construction equipment rated by the U.S. Environmental Protection Agency (USEPA) as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower, as commercially available. • Ensure that construction equipment is properly serviced and maintained to the manufacturer's standards. • Limit nonessential idling of construction equipment to no more than five consecutive minutes. • Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering. 	Significant and Unavoidable

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Air Quality (cont.)		
Impact 3.4-1 (cont.)	<ul style="list-style-type: none"> • Water all active construction areas at least three times daily or four times daily if needed to control dust emissions. Watering should be sufficient to prevent airborne visible dust from leaving the site. Where local water supplies are not available in sufficient quantities within unincorporated areas of the County, use nontoxic chemical soil stabilizers or dust suppressants to control dust emissions in sufficient amounts to prevent airborne visible dust from leaving the site. • Increase watering frequency and/or application frequency of nontoxic chemical soil stabilizers or dust suppressants whenever wind speeds exceed 25 miles per hour. Reclaimed water shall be used whenever possible. • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). • Pave, apply water three times daily or as often as necessary to control dust, or where local water supplies are not available in sufficient quantities within unincorporated areas of County, apply (nontoxic) soil stabilizers or dust suppressants on all unpaved access roads, parking areas, and staging areas at construction sites. • Sweep daily (with water sweepers using reclaimed water if possible), or as often as needed, all paved access roads, parking areas, and staging areas at the construction site to control dust. • Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the Proposed Project site, or as often as needed, to keep streets free of visible soil material. • Where local water supplies are not available in sufficient quantities within unincorporated areas of Los Angeles County, hydroseed or apply nontoxic chemical soil stabilizers or dust suppressants to inactive construction areas. • Enclose, cover, water three times daily, or apply nontoxic chemical soil stabilizers or dust suppressants to exposed stockpiles (dirt, sand, etc.). <p>Mitigation Measure 3.4-2: Architectural Coating VOC Emissions. If, during subsequent project-level environmental review, it is determined that VOC emissions impacts may be significant, the lead agency shall require Super-Compliant VOC-content architectural coatings (0 grams per liter to less than 10 grams per liter VOC) to be used during construction and operational application of paints and other architectural coatings to reduce ozone precursors. If paints and coatings with VOC content of 0 grams/liter to less than 10 grams/liter cannot be utilized, the developer shall avoid application of architectural coatings during days when the SCAQMD has forecasted the Air Quality Index for ozone to be greater than 100 for the project location.</p>	

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Air Quality (cont.)		
<p>Impact 3.4-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, could result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.</p>	<p>Mitigation: Implement Mitigation Measure 3.4-1 and Mitigation Measure 3.4-2.</p> <p>Mitigation Measure 3.4-3: Enhanced Energy Conservation. If, during subsequent project-level environmental review, it is determined that operational emissions impacts may be significant, the lead agency shall require the project to incorporate enhanced energy conservation measures beyond those required by federal or state law, LA County ordinance, and the Draft 2045 CAP measures and actions to reduce energy-related emissions. Enhanced energy conservation measures shall include one or more of the following as applicable:</p> <ul style="list-style-type: none"> • Install Energy Star rated heating, cooling, lighting, and appliances. • Use of heating, ventilation, and air conditioning equipment with a Seasonal Energy Efficiency Ratio of 12 or higher. • Installation of water heaters with an energy factor of 0.92 or higher. • Install solar water heaters or tankless water heaters. • Use passive solar cooling/heating. • Reduce building natural gas infrastructure, use renewable natural gas in place of fossil fuel-derived natural gas, or eliminate building natural gas infrastructure and fully electrify buildings. <p>Mitigation Measure 3.4-4: Low-VOC/Green Cleaning Product Educational Program. If, during subsequent project-level environmental review, it is determined that operational emissions impacts may be significant, the lead agency shall require the project applicant or developer to provide tenants and residents with information about low-VOC/green cleaning products and paints, including materials educating how to identify low-VOC cleaners and products.</p>	Significant and Unavoidable
<p>Impact 3.4-3a: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would expose sensitive receptors to substantial pollutant concentrations for localized air pollutants and TAC emissions.</p>	<p>Mitigation: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, and 3.4-4.</p> <p>Mitigation Measure 3.4-5: Stationary Sources. Applicants for new or modified stationary sources facilitated by the Draft 2045 CAP measures and actions that: (1) have the potential to generate 40 or more diesel trucks per day and (2) are located within 1,000 feet of a sensitive land use (e.g. residential, schools, hospitals, nursing homes), as measured from the property line of the proposed project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the LA County Department of Regional Planning prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the applicable air quality management district. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), particulate matter concentrations would exceed 2.5 µg/m³, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the proposed project.</p>	Significant and Unavoidable for localized air pollutants and TAC emissions; Less than Significant with Mitigation Incorporated for Valley Fever

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Air Quality (cont.)		
Impact 3.4-3 (cont.)	<p>Mitigation Measure 3.4-6: Health Risk Assessment. Applicants shall submit a health risk assessment (HRA) to LA County prior to future discretionary project approval for sensitive land uses facilitated by the Draft 2045 CAP measures and actions within the following distances as measured from the property line of the proposed project to the property line of the source/edge of the nearest travel lane, from these facilities:</p> <ul style="list-style-type: none"> • Industrial facilities within 1,000 feet • Distribution centers (40 or more trucks per day) within 1,000 feet • Major transportation projects (50,000 or more vehicles per day) within 1,000 feet • Gasoline dispensing facilities within 300 feet <p>The HRA shall be prepared in accordance with policies and procedures of the applicable Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to:</p> <ul style="list-style-type: none"> • Air intakes located away from high volume roadways and/or truck loading zones, unless it can be demonstrated to the LA County Department of Regional Planning that there are operational limitations. • Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters. <p>Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the Proposed Project. The air intake design and MERV filter requirements shall be noted and/or reflected on all building plans submitted to LA County and shall be verified by the LA County Department of Regional Planning.</p> <p>For Valley Fever impacts, implementation of Mitigation Measure 3.4-1 would reduce fugitive dust emissions and exposure to fugitive dust potentials carry spores from the fungus <i>Coccidioides immitis</i>, which causes Valley Fever, to a less-than-significant level.</p>	
Impact 3.4-3b: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not expose sensitive receptors to substantial pollutant concentrations relating to Valley Fever.	None required.	Less than Significant
Impact 3.4-4: The Draft 2045 CAP measures and actions would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	None required.	Less than Significant
Impact 3.4-5: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a cumulatively considerable contribution to a significant cumulative impact due to a conflict with or obstruction of implementation of the applicable air quality plan.	Mitigation: Implement Mitigation Measure 3.4-1 and Mitigation Measure 3.4-2.	Significant and Unavoidable.

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Air Quality (cont.)		
<p>Impact 3.4-6: The Draft 2045 CAP would make a cumulatively considerable contribution to a significant cumulative impact to air quality associated with criteria pollutants.</p>	<p>Mitigation: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, and 3.4-4.</p>	<p>Significant and Unavoidable.</p>
<p>Impact 3.4-7: The Project, as a result of projects facilitated by the Draft 2045 CAP, could contribute to a significant cumulative impact to air quality associated with localized air pollutant TAC emissions but would not contribute to a significant cumulative impact related to Valley Fever.</p>	<p>Mitigation: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, 3.4-5, and 3.4-6.</p>	<p>Significant and Unavoidable for localized air pollutant and TAC emissions Less than Significant for Valley Fever</p>
<p>Impact 3.4-8: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not make a cumulatively considerable contribution to a significant cumulative impact due to other emissions (such as those leading to odors) adversely affecting a substantial number of people.</p>	<p>None required.</p>	<p>Less than Significant</p>
Biological Resources		
<p>Impact 3.5-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial direct adverse impact on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.</p>	<p>Mitigation Measure 3.5-1: Biological resources shall be analyzed on a project-specific level by a qualified biological consultant. Prior to the start of construction activities, a general survey shall be conducted to characterize the project site, and focused surveys would be conducted as necessary to determine the presence/absence of special-status species (e.g., focused sensitive plant or wildlife surveys). A biological resources assessment report shall be prepared to characterize the biological resources on-site, analyze impacts on biological resources, and propose mitigation measures to offset those impacts. The report shall include site location, literature sources, methodology, timing of surveys, vegetation map, site photographs, and descriptions of biological resources on-site (e.g., observed and detected species as well as those species with potential to occur onsite).</p> <p>Mitigation Measure 3.5-2: If there is potential for direct impacts to special-status species with implementation of construction activities, the project-specific biological resources assessment report (as described in Mitigation Measure 3.5-1) shall include a mitigation measure requiring pre-construction surveys for special-status species and/or construction monitoring to ensure avoidance, relocation, or safe escape of special-status species from the construction activities, as appropriate. If special-status species are found to be nesting, brooding, denning, etc. on-site during the pre-construction survey or monitoring, construction activity shall be halted until offspring are weaned, fledged, etc. and are able to escape the site or be safely relocated to appropriate offsite habitat areas. Relocation of such species into areas of appropriate restored habitat would have the best chance of replacing/incrementing populations that are lost due to habitat converted to development. Relocation to restored habitat areas shall be the preferred goal of this measure. A qualified biologist shall be on site to conduct surveys, to perform or oversee implementation of protective measures, and to determine when construction activity may resume.</p>	<p>Less than Significant</p>

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Biological Resources (cont.)		
Impact 3.5-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2, set forth above. No additional mitigation measures are feasible.	Significant and Unavoidable
Impact 3.5-3: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS.	Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2, set forth above.	Significant and Unavoidable
Impact 3.5-4: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.	Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2, set forth above.	Less than Significant
Impact 3.5-5: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Mitigation: Implement Mitigation Measure 3.5-1, set forth above. Mitigation Measure 3.5-3: Corridors shall not be entirely closed by any development, and partial mitigation shall be mandatory for project-specific impacts on wildlife corridors and wildlife nursery sites. This shall include provision of a minimum of half the corridor width. (The width shall be at least what is needed to remain connective for the top predators using the corridor.) Mitigation can include preservation by deed in perpetuity of other parts of the wildlife corridor connecting through the development area; it can include native landscaping to provide cover on the corridor. For nursery site impacts, mitigation shall include preservation by deed in perpetuity for another comparable nursery site of the same species.	Significant and Unavoidable
Impact 3.5-6: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10 percent canopy cover with oaks at least 5 inches in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.).	None required.	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Biological Resources (cont.)		
Impact 3.5-7: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in a cumulatively considerable contribution to a significant cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2, set forth above.	Significant and Unavoidable
Impact 3.5-8: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in a cumulatively considerable contribution to a significant cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS.	Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2, set forth above.	Significant and Unavoidable
Impact 3.5-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a substantial cumulative adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.	Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2, set forth above.	Less than Significant
Impact 3.5-10: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative impact relating to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impediment of the use of native wildlife nursery sites.	Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-3, set forth above.	Significant and Unavoidable
Impact 3.5-11: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to the cumulative conversion of oak woodlands or other unique native woodlands.	None required.	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Cultural Resources		
<p>Impact 3.6-1: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.</p>	<p>Mitigation Measure 3.6-1: Historic Resources Assessment. Prior to demolition or alteration of buildings and/or structures or the construction of aboveground infrastructure with potentially significant impacts on historic architectural resources, the project proponent shall retain an architectural historian meeting the minimum professional qualifications standards (PQS) set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738-44739) (Qualified Architectural Historian) to conduct a historic resources assessment of affected properties. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a review of other pertinent archives and sources; a pedestrian field survey; recordation of all identified historic architectural resources on California Department of Parks and Recreation (DPR) 523 forms; evaluation of resources which may be eligible for listing in the California Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment for each future project facilitated by 2045 CAP measures and actions. If a historic architectural resource is found eligible by the Qualified Architectural Historian, then the Qualified Architectural Historian shall coordinate with the project proponent and LA County to ensure the project is constructed in conformance with the Secretary of the Interior's Standards. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to historic resources assessments and Secretary of the Interior's Standards plan reviews).</p> <p>Mitigation Measure 3.6-2: Archaeological Resources Assessment. Prior to conducting construction activities that would involve ground disturbance, the project proponent shall retain an archaeologist meeting the minimum PQS set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738-44739) (Qualified Archaeologist) to conduct an archaeological resources assessment. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a Sacred Lands File search at the California Native American Heritage Commission (NAHC); geoarchaeological review including a focused assessment of land use history and any available geotechnical data to assess the potential for subsurface archaeological resources; a pedestrian field survey in instances where ground surface is exposed; recordation of all identified archaeological resources on DPR 523 forms; evaluation of resources affected by the project for eligibility for listing in the California Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment. Resources that do not qualify as historical resources shall be considered by the Qualified Archaeologist for qualification as unique archaeological resources as defined in Public Resources Code Section 21083.2(g). The technical report also shall provide recommendations as to whether additional studies are warranted to further identify or evaluate archaeological resources (i.e., Extended Phase I boundary delineation, Phase II testing and evaluation) and if archaeological monitoring and Native American monitoring of ground disturbing activities is warranted (e.g., in areas where there is a higher potential to encounter buried resources). Prior to the initiation of field work for any Extended Phase I or Phase II investigation, the Qualified Archaeologist shall prepare a work plan outlining the investigation's objectives, goals, and methodology. When developing a work plan for Native American resources, the LA County shall consult with local Native American tribes. If archaeological/Native American monitoring</p>	Less than Significant

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Cultural Resources (cont.)		
<p>Impact 3.6-1 (cont.)</p>	<p>is warranted, the Qualified Archaeologist shall determine the locations and duration of monitoring and reporting requirements. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to archaeological resources assessments, Extended Phase I and Phase II reports, and monitoring reports).</p> <p>Mitigation Measure 3.6-3: Construction Worker Cultural Resources Sensitivity Training. For projects with ground-disturbing activities that may encounter potentially significant archaeological resources, the Qualified Archaeologist shall implement a cultural resources sensitivity training program. The Qualified Archaeologist, or its designee, shall instruct all construction personnel of the types of archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, applicable laws protecting archaeological resources, and confidentiality of discoveries. Native American monitor(s) shall be invited to participate in presenting tribal perspectives as part of the training curriculum. In the event that construction crews are phased, additional trainings shall be conducted for new construction personnel. The project proponent or its contractors shall ensure construction personnel are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to LA County.</p> <p>Mitigation Measure 3.6-4: Archaeological Resources Discoveries. In the event archaeological resources are encountered during construction of a project, the project proponent shall cease all activity within 50 feet of the find shall cease. The discovery shall be evaluated for significance by the Qualified Archaeologist. When assessing significance and developing treatment for resources that are Native American in origin, LA County shall consult with local Native American tribes. If the Qualified Archaeologist determines that the resource is significant (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), the Qualified Archaeologist shall provide a method for avoidance and preservation in place, which shall be the preferred manner of mitigating impacts. If avoidance is infeasible, the Qualified Archaeologist shall develop a Phase III Archaeological Resources Data Recovery and Treatment Plan consistent with Mitigation Measure 3.6-5. The Qualified Archaeologist also shall determine, based on the initial assessment of the discovery, whether the 50-foot buffer may be reduced. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to Extended Phase I, Phase II, and Phase III reports).</p> <p>Mitigation Measure 3.6-5: Treatment of Archaeological Resources. If the assessment conducted under Mitigation Measure 3.6-2 or Mitigation Measure 3.6-4 identifies significant archaeological resources (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), then avoidance and preservation in place shall be the preferred manner of mitigating impacts. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. If avoidance and preservation in place of significant archaeological resources is determined by LA County to be infeasible, then the Qualified Archaeologist shall prepare a Phase III Archaeological Resources Data Recovery and Treatment Plan. The plan shall include: a detailed research design; justification for data recovery or other treatment methods depending on the nature of the resource's eligibility; excavation methodology; and, reporting</p>	

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Cultural Resources (cont.)		
<p>Impact 3.6-1 (cont.)</p>	<p>and curation requirements. When developing treatment for resources that are Native American in origin, LA County shall consult with local Native American tribes. All Phase III reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center.</p> <p>Mitigation Measure 3.6-6: Curation and Disposition of Cultural Materials. The project proponent shall arrange curation for all Native American archaeological materials, with the exception of funerary objects or grave goods (i.e., artifacts associated with Native American human remains). For significant Native American archaeological materials, the project proponent shall first consider repositories that are accredited by the American Association of Museums and that meet the standards outlined in 36 CFR 79.9. If a suitable accredited repository is not identified, then the project proponent shall consider nonaccredited repositories as long as they meet the minimum standards set forth by 36 CFR 79.9. If a suitable nonaccredited repository is not identified, then the project proponent shall donate the collection to a local California Native American tribe(s). Nonsignificant archeological materials shall be donated to a local California Native American tribe(s). If neither an accredited or nonaccredited repository or tribe accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes. Disposition of Native American human remains and associated funerary objects or grave goods shall be determined by the landowner in consultation with LA County and the MLD.</p> <p>The project proponent shall curate all significant historic-period archaeological material, or portions thereof at the discretion of the Qualified Archaeologist, at a repository accredited by the American Association of Museums that meets the standards outlined in 36 CFR 79.9. If no accredited repository accepts the collection, then the project proponent may curate it at a nonaccredited repository as long as it meets the minimum standards set forth in 36 CFR 79.9. If neither an accredited nor a nonaccredited repository accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes.</p>	
<p>Impact 3.6-2: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5.</p>	<p>Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6.</p>	<p>Less than Significant</p>
<p>Impact 3.6-3: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p>	<p>Mitigation Measure 3.6-7: Paleontological Resources Assessment and Monitoring. For projects facilitated by Draft 2045 CAP measures and actions that involve ground disturbance, the project proponent shall retain a paleontologist who meets the Society of Vertebrate Paleontology's (SVP 2010) definition for qualified professional paleontologist (Qualified Paleontologist) to prepare a paleontological resources assessment report prior to the start of construction activities. The report shall include methods and results of the paleontological resources assessment, monitoring requirements (including depths, frequency, and reporting), and maps that outline where monitoring is required. Monitoring shall follow SVP Guidelines: no monitoring of ground-disturbing activities within units of <i>Low Sensitivity</i> or <i>No Potential</i>; monitoring of all ground-disturbing activities (with depths specified) in units of <i>Low to High</i></p>	<p>Less than Significant</p>

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Cultural Resources (cont.)		
<p>Impact 3.6-3 (cont.)</p>	<p><i>Significance</i>; and at all depths within units of <i>High Significance</i> unless the Qualified Paleontologist’s report identifies previous disturbances or the use of construction methods which do not warrant monitoring; and monitoring at the initiation of excavation in units of <i>Undetermined Significance</i>. The report also shall stipulate whether screen washing is necessary to recover small specimens following SVP Guidelines and determine whether unique geologic features are present onsite. If monitoring is conducted, then the Qualified Paleontologist shall prepare a final report summarizing monitoring results and submit it to the project proponent and LA County.</p> <p>Mitigation Measure 3.6-8: Paleontological Resources Sensitivity Training. Prior to the start of ground-disturbing activities for projects facilitated by Draft 2045 CAP measures and actions with potentially significant impacts on paleontological resources, the Qualified Paleontologist or its designee shall conduct construction worker paleontological resources sensitivity training (or may be provided via digital recording) for all construction workers. Construction workers shall be informed on how to identify the types of paleontological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources, and safety precautions to be taken when working with paleontological monitors. The project proponent shall ensure that construction workers are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to LA County.</p> <p>Mitigation Measure 3.6-9: Paleontological Discoveries. If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. An appropriate buffer area determined by the paleontological monitor shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the monitor’s discretion, and to reduce any construction delay, the grading/excavation contractor shall assist, where feasible, in removing rock/sediment samples for initial processing and evaluation. If a fossil is determined to be significant, the Qualified Paleontologist shall implement a paleontological salvage program to remove the resources from their location, following the guidelines of the SVP (2010). Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at a public, nonprofit institution with a research interest in the material and with retrievable storage, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. Accompanying notes, maps, and photographs shall also be filed at the repository. If no institution accepts the fossil collection, it may be donated to a local school or other interested organization in the area for educational purposes.</p> <p>If construction workers discover any potential fossils during construction while the paleontological monitor is not present, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and recommended and implemented appropriate treatment as described earlier in this measure.</p> <p>Any salvage reports resulting from implementation of this measure shall be filed with the Natural History Museum of Los Angeles County.</p>	

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Cultural Resources (cont.)		
<p>Impact 3.6-4: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would disturb any human remains, including those interred outside of dedicated cemeteries.</p>	<p>Mitigation Measure 3.6-10: Human Remains Discoveries. If human remains are encountered, then the project proponent or its contractor shall immediately halt work within 50 feet of the discovery and contact the LA County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5, which require that no further disturbance shall occur until the LA County Coroner has made the necessary findings as to the remains' origin and disposition. If the LA County Coroner determines that the remains are Native American, then the County Coroner will notify the NAHC within 24 hours in accordance with Health and Safety Code Section 7050.5(c), and Public Resources Code Section 5097.98. The NAHC shall then identify the person(s) thought to be the MLD. The MLD may, with the permission of the land owner, or their authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. The project proponent, LA County, and the landowner shall discuss and confer with the MLD on all reasonable options regarding the MLD's preferences for treatment.</p> <p>Until the project proponent, the County, and the landowner have conferred with the MLD, the contractor shall ensure that the immediate vicinity where the discovery occurred is not disturbed by further activity and is adequately protected according to generally accepted cultural or archaeological standards or practices (e.g., the <i>NAHC's A Professional Guide for the Preservation and Protection of Native American Human Remains and Associated Grave Goods</i> [NAHC 2022], which reiterates statutory requirements), and that further activities take into account the possibility of multiple burials.</p> <p>If the NAHC is unable to identify an MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Public Resources Code Section 5097.94(k), if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.</p>	Less than Significant
<p>Impact 3.6-5: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on historical resources.</p>	<p>Mitigation: Implement Mitigation Measures 3.6-1 through 3.6-6.</p>	Less than Significant
<p>Impact 3.6-6: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on unique archaeological resources.</p>	<p>Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6.</p>	Less than Significant

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Cultural Resources (cont.)		
Impact 3.6-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on unique paleontological resources or sites or unique geologic features.	Mitigation: Implement Mitigation Measures 3.6-7 through 3.6-9.	Less than Significant
Impact 3.6-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on human remains, including those interred outside of dedicated cemeteries.	Mitigation: Implement Mitigation Measure 3.6-10.	Less than Significant
Energy		
Impact 3.7-1: The Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation.	None required.	No Impact
Impact 3.7-2: The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	None required.	No Impact
Geology and Soils		
Impact 3.8-1: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace.	None required.	Less than Significant
Impact 3.8-2: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.	None required.	Less than Significant
Impact 3.8-3: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading.	None required.	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Geology and Soils (cont.)		
Impact 3.8-4: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving landslides.	None required.	Less than Significant
Impact 3.8-5: The Project would not result in substantial soil erosion or loss of topsoil.	None required.	Less than Significant
Impact 3.8-6: The Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	None required.	Less than Significant
Impact 3.8-7: The Project would not be located on expansive soil, creating substantial direct or indirect risks to life or property.	None required.	Less than Significant
Impact 3.8-8: The Project would not have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater.	None required.	Less than Significant
Impact 3.8-9: The Project would not conflict with the Hillside Management Area Ordinance.	None required.	Less than Significant
Impact 3.8-10: The Project would result in less-than-significant cumulative impacts related to geology and soils.	None required.	Less than Significant
Greenhouse Gas Emissions		
Impact 3.9-1: The Draft 2045 CAP would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	None required.	Less than Significant
Impact 3.9-2: The Draft 2045 CAP would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	None required.	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Hazards and Hazardous Materials		
Impact 3.10-1: Projects facilitated by the Draft 2045 CAP would not create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials.	None required.	Less than Significant
Impact 3.10-2: The Project, as a result of solar PV and other projects facilitated by the Draft 2045 CAP measures and actions, could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment.	<p>Mitigation Measure 3.10-2: LA County shall require applicants of solar PV installation projects that include the use of CdTe modules to dispose of panels or recycle panels in accordance with current local, state, and federal regulations. Broken and end-of-project-life PV modules, materials, and components shall be:</p> <ul style="list-style-type: none"> • Handled in a manner that is protective of human health and the environment. • Stored on-site in a manner that complies with federal and state laws until recycling or disposal actions can be taken. • Stored on-site no longer than allowed by federal and state laws. • Recycled in accordance with federal and state laws applicable at that time. 	Less than Significant
Impact 3.10-3: Projects facilitated by the Draft 2045 CAP would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses.	Mitigation: Implement Mitigation Measure 3.10-2.	Less than Significant
Impact 3.10-4: Projects facilitated by the Draft 2045 CAP may be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but would not create a significant hazard to the public or the environment.	None required.	Less than Significant
Impact 3.10-5: Projects facilitated by the Draft 2045 CAP would not, for a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the Project area.	None required.	Less than Significant
Impact 3.10-6: Projects facilitated by the Draft 2045 CAP would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.	Mitigation: Implement Mitigation Measure 3.15-1.	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Hazards and Hazardous Materials (cont.)		
Impact 3.10-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials.	None required	Less than Significant
Impact 3.10-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment.	Mitigation: Implement Mitigation Measure 3.10-2.	Less than Significant
Impact 3.10-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative adverse impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses.	Mitigation: Implement Mitigation Measure 3.10-2.	Less than Significant
Impact 3.10-10: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative impacts related to being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but would not create a significant hazard to the public or the environment.	None required.	Less than Significant
Impact 3.10-11: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative safety hazards or excessive noise for people residing or working in the project area.	None required.	Less than Significant
Impact 3.10-12: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative impairment of the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.	Mitigation: Implement Mitigation Measure 3.15-1.	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Hydrology and Water Quality		
Impact 3.11-1: Projects facilitated by the Draft 2045 CAP would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	None required.	Less than Significant
Impact 3.11-2: Projects facilitated by the Draft 2045 CAP would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.	None required.	Less than Significant
Impact 3.11-3: Projects facilitated by the Draft 2045 CAP would not substantially alter the existing drainage pattern of the site or area, including through the alteration of a Federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding.	None required.	Less than Significant
Impact 3.11-4: Projects facilitated by the Draft 2045 CAP would not otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements.	None required.	Less than Significant
Impact 3.11-5: Projects facilitated by the Draft 2045 CAP would not, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	Mitigation: Implement Mitigation Measure 3.10-2.	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Hydrology and Water Quality (cont.)		
Impact 3.11-6: Projects facilitated by the Draft 2045 CAP would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	None required.	Less than Significant
Impact 3.11-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	None required.	Less than Significant
Impact 3.11-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative decreases groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.	None required.	Less than Significant
Impact 3.11-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative alterations to the existing drainage pattern of the site or area.	None required.	Less than Significant
Impact 3.11-10: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative placement of structures in federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements.	None required.	Less than Significant
Impact 3.11-11: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation.	Mitigation: Implement Mitigation Measure 3.10-2.	Less than Significant
Impact 3.11-12: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	None required.	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Land Use and Planning		
Impact 3.12-1: Projects facilitated by the Draft 2045 CAP would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact.	None required.	Less than Significant
Impact 3.12-2: Projects facilitated by the Draft 2045 CAP would not cause or contribute to a significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact.	None required.	Less than Significant
Noise		
Impact 3.13-1: Projects facilitated by the Draft 2045 CAP could generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	<p>Mitigation Measure 3.13-1: Construction Noise. Construction activities associated with new projects facilitated by the Draft 2045 CAP that occur within 500 feet of noise-sensitive receptors (i.e., residences, parks, schools, historic sites, cemeteries, and recreation areas) shall be evaluated by the project applicant for noise impacts that would result in a 5 dBA increase over existing ambient noise levels at any sensitive receptor. Mitigation measures such as installing temporary sound barriers for construction activities that occur adjacent to occupied noise-sensitive structures; equipping construction equipment with more effective mufflers, sound-insulating hoods or enclosures, vibration dampers, and other Best Available Control Technology (BACT); and reducing non-essential idling of construction equipment to no more than five minutes shall be incorporated into construction activities to reduce construction-related noise.</p> <p>Mitigation Measure 3.13-2: Stationary-Source Noise. Before building permits are issued for any project that involves a noise-sensitive use within the 65 dBA CNEL contour (i.e., areas in or above 65 dBA CNEL) exposed to project stationary-source noise levels in excess of applicable standards in the Los Angeles County Noise Ordinance, the project applicant shall retain an acoustical engineer to conduct an acoustic analysis. The acoustic analysis shall identify site design features (e.g., setbacks, berms, parapets, equipment enclosures, equipment mufflers, sound walls, or other similar noise control device or noise barrier) and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling) to ensure compliance with the County's Noise Compatibility Criteria, the California Building Code, and the California Noise Insulation Standards (Title 24 of the California Code of Regulations).</p>	Significant and Unavoidable
Impact 3.13-2: Projects facilitated by the Draft 2045 CAP could generate excessive groundborne vibration or groundborne noise levels.	Mitigation Measure 3.13-3: Construction Vibration. Individual projects that use vibration-intensive construction equipment, such as pile drivers, jackhammers, and vibratory rollers near vibration-sensitive receptors shall be evaluated by the applicant for potential vibration impacts. If construction-related vibration is determined to exceed the FTA's vibration annoyance criterion of 78 VdB at sensitive receptor locations or Caltrans criteria for damage or human annoyance as applicable, additional requirements shall be implemented during construction, such as the use of less-vibration-intensive equipment or vibration-reduction construction techniques or strategies (e.g., drilled piles to eliminate the use of a vibration-intensive pile driver, increased setback distances).	Significant and Unavoidable

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Noise (cont.)		
<p>Impact 3.13-3: Projects facilitated by the Draft 2045 CAP could make a cumulatively considerable contribution to a significant cumulative impact related to the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.</p>	<p>Mitigation: Implement Mitigation Measure 3.13-1 and Mitigation Measure 3.13-2.</p>	Significant and Unavoidable
<p>Impact 3.13-4: Projects facilitated by the Draft 2045 CAP could make a cumulatively considerable contribution to a significant cumulative impact relating to the generation of excessive groundborne vibration or groundborne noise levels from construction activities.</p>	<p>Mitigation: Implement Mitigation Measure 3.13-3.</p> <p>Mitigation Measure 3.13-4: New Development Near Railroad Tracks. New development that occurs within 200 feet of a railroad track (according to the FTA's vibration screening distances) shall be evaluated for potential vibration impacts. The project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features and/or required building construction improvements to ensure that vibration impacts would remain below acceptable levels of 0.08 in/sec RMS for residential uses.</p>	Significant and Unavoidable
Population and Housing		
<p>Impact 3.14-1: Projects facilitated by the Draft 2045 CAP would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).</p>	None required.	Less than Significant
<p>Impact 3.14-2: Projects facilitated by the Draft 2045 CAP would not displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.</p>	None required.	Less than Significant
<p>Impact 3.14-3: Projects facilitated by the Draft 2045 CAP would cause or make a cumulatively considerable contribution to any significant cumulative impact relating to the inducement of substantial unplanned population growth in an area, either directly or indirectly.</p>	None required.	Less than Significant

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Population and Housing (cont.)		
<p>Impact 3.14-4: Projects facilitated by the Draft 2045 CAP would not cause or make a cumulatively considerable contribution to any significant cumulative impact relating to displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.</p>	<p>None required.</p>	<p>Less than Significant</p>
Transportation		
<p>Impact 3.15-1: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would conflict with an applicable program plan, ordinance, or policy addressing the circulation system.</p>	<p>Mitigation Measure 3.15-1, Traffic Control Plan: LA County shall require project applicants and construction contractors to coordinate with relevant LA County departments, transit providers, and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on transit service, roadway operations, emergency responders, pedestrian and bicycle facilities, and public safety in the surrounding area. (A traffic control plan may not be required for minor construction activities.) The project applicant shall be responsible for monitoring to ensure that the plan is effectively implemented by the construction contractor(s). Measures that may be employed throughout the course of the construction period include, but are not limited, to the following.</p> <ul style="list-style-type: none"> • Provide advance notice of lane and sidewalk closures, durations, and alternative routes to emergency service providers, motorists, bicyclists, and pedestrians. • Provide clearly marked pedestrian detours if any sidewalk or pedestrian walkway closures are necessary. • Provide clearly marked bicycle detours if heavily used bicycle routes must be closed, or if bicyclist safety may otherwise be comprised. • Provide crossing-guards and/or flag persons as needed to avoid traffic conflicts and ensure pedestrian and bicyclist safety. • Locate all stationary equipment as far as possible from areas used heavily by vehicles, bicyclists, and pedestrians. • Use nonskid traffic plates over open trenches to reduce hazards. • Implement traffic control measures to reduce vehicle travel delays through construction zones. • Maintain acceptable response times and performance objectives for emergency response services. • Avoid routing construction traffic through residential areas to the extent feasible. • Prohibit mobilization and demobilization of heavy construction equipment during AM and PM peak traffic hours. • Maintain access for driveways and private roads outside the immediate construction zone by using steel plates or temporary backfill, as necessary. • Provide designated areas for construction worker parking wherever feasible to reduce use of parking on streets or in city center areas. 	<p>Less than Significant</p>

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Transportation (cont.)		
Impact 3.15-2: Projects facilitated by the Draft 2045 CAP would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).	None required.	Less than Significant
Impact 3.15-3: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would substantially increase hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Mitigation: Implement Mitigation Measure 3.15-1.	Less than Significant
Impact 3.15-4: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to a significant cumulative impact relating to conflict with an applicable program plan, ordinance or policy addressing the circulation system.	Mitigation: Implement Mitigation Measure 3.15-1.	Less than Significant
Impact 3.15-5: The Project would not cause a cumulatively considerable contribution to a significant cumulative impact relating to conflict or inconsistency with CEQA Guidelines Section 15064.3(b).		Less than Significant
Impact 3.15-6: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to a significant cumulative impact relating to a substantial increase in hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Mitigation: Implement Mitigation Measure 3.15-1.	Less than Significant
Tribal Cultural Resources		
Impact 3.16-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by LA County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c).	Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6. Mitigation Measure 3.16-1: AB 52 Consultation. Consistent with AB 52, before the release of a negative declaration, mitigated negative declaration, or EIR, LA County shall initiate consultation within 14 days of a decision to undertake a project facilitated by Draft 2045 CAP measures or actions. LA County shall provide formal notification to the designated contact of, or a tribal representative of, each traditionally and culturally affiliated California Native American tribe that has requested notice. LA County shall begin the consultation process within 30 days after receiving a California Native American tribe's request for consultation. The purpose of the consultation shall be to identify sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Tribal Cultural Resources (cont.)		
Impact 3.16-1 (cont.)	<p>that meet the definition of tribal cultural resources provided in CEQA Section 21074(a)(1) or Section 21074(a)(2). In addition, the California Native American tribe may request consultation regarding the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and, if necessary, project alternatives or the appropriate measures for preservation or mitigation.</p> <p>If tribal cultural resources are identified, LA County shall implement mitigation measures that could avoid or substantially lessen significant impacts on such resources, including but not limited to the measures recommended in Public Resources Code Section 21084.3, or shall implement alternatives that would avoid significant impacts on the tribal cultural resources. Such measures shall be implemented in consultation with the California Native American tribe.</p>	
Impact 3.16-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a cumulatively considerable contribution to a significant cumulative impact caused by an adverse change in the significance of a tribal cultural resource or of a resource determined by LA County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c).	Mitigation: Implement Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6.	Less than Significant
Utilities and Service Systems		
Impact 3.17-1: Projects facilitated by the Draft 2045 CAP would require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.	Mitigation: From Section 3.4, <i>Air Quality</i> , implement Mitigation Measure 3.4-1 through Mitigation Measure 3.4-4. From Section 3.5, <i>Biological Resources</i> , implement Mitigation Measure 3.5-1 through Mitigation Measure 3.5-3. From Section 3.6, <i>Cultural Resources</i> , implement Mitigation Measure 3.6-1 through Mitigation Measure 3.6-10. From Section 3.10, <i>Hazards and Hazardous Materials</i> , implement Mitigation Measure 3.10-2. From Section 3.13, <i>Noise</i> , implement Mitigation Measure 3.13-1 through Mitigation Measure 3.13-4. From Section 3.15, <i>Transportation</i> , implement Mitigation Measure 3.15-1.	Significant and Unavoidable
Impact 3.17-2: Projects facilitated by the Draft 2045 CAP would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	None required.	Less than Significant
Impact 3.17-3: Projects facilitated by the Draft 2045 CAP would not result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.	None required.	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Utilities and Service Systems (cont.)		
Impact 3.17-4: Projects facilitated by the Draft 2045 CAP would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	None required.	Less than Significant
Impact 3.17-5: Projects facilitated by the Draft 2045 CAP would cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.	Mitigation: Implement Mitigation Measures 3.4-1 through 3.4-4; Mitigation Measures 3.5-1 through 3.5-3; Mitigation Measures 3.6-1 through 3.6-10; Mitigation Measure 3.10-2; Mitigation Measures 3.13-1 through 3.13-4; and Mitigation Measure 3.15-1.	Significant and Unavoidable
Impact 3.17-6: Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to insufficient water supplies.	None required.	Less than Significant
Impact 3.17-7: Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to inadequate wastewater treatment capacity.	None required.	Less than Significant
Impact 3.17-8: Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	None required.	Less than Significant
Wildfire		
Impact 3.18-1: Projects facilitated by the Draft 2045 CAP would not substantially impair an adopted emergency response plan or emergency evacuation plan.	Mitigation: Implement Mitigation Measure 3.15-1.	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Wildfire (cont.)		
<p>Impact 3.18-2: Projects facilitated by the Draft 2045 CAP would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and would not thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.</p>	None required.	Less than Significant
<p>Impact 3.18-3: Projects facilitated by the Draft 2045 CAP could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or may result in temporary or ongoing impacts on the environment.</p>	<p>Mitigation Measure 3.18-3: Fire Safety. Future applicants and/or their contractors shall prepare and implement project-specific fire prevention plans to ensure that fire-related hazards are not exacerbated by projects facilitated by the Draft 2045 CAP measures or goals that would occur within fire hazard severity zones. The fire prevention plans shall include the requirements listed below.</p> <p>Before construction, the applicant shall contact and consult with LACoFD and CAL FIRE to determine the appropriate amounts of fire prevention and suppression equipment to be carried on the construction vehicles and appropriate prevention measures to be taken during construction. The applicant shall submit verification of its consultation with LACoFD and CAL FIRE to LA County. The applicant shall submit the fire prevention plan to LA County for review and approval 60 days before the start of construction activities and shall make the approved plan available to all construction and operation crew members before construction and operation of the project, respectively. The fire prevention plan shall list fire safety measures for construction and operation including fire prevention and extinguishment procedures, as well as specific emergency response and evacuation measures that would be followed during emergency situations; examples are listed below. The plan also shall provide fire-related rules for smoking, storage, and parking areas; usage of spark arrestors on construction equipment; and fire suppression tools and equipment. The fire prevention plan shall include or require, but not be limited to, the following measures, as applicable:</p> <ul style="list-style-type: none"> • The applicant and/or its contractors shall have water tanks, water trucks, or portable water backpacks (where space or access for a water truck or water tank is limited) sited/available in the study area for fire protection during construction. • All construction vehicles shall have fire suppression equipment. • The applicant shall ensure that all construction workers receive training on the proper use of firefighting equipment and procedures to be followed in the event of a fire. • Because construction may occur simultaneously at several locations, each construction site shall be equipped with fire extinguishers and firefighting equipment sufficient to extinguish small fires. • The applicant shall instruct construction personnel to park vehicles within roads, road shoulders, graveled areas, and/or cleared areas (i.e., away from dry vegetation) wherever such surfaces are present at the construction site. • The applicant and its contractor shall cease construction work during Red Flag Warning events in areas where vegetation would be susceptible to accidental ignition by project activities (such as welding or use of equipment that could create a spark). 	Less than Significant

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Wildfire (cont.)		
Impact 3.18-3 (cont.)	<ul style="list-style-type: none"> • At each construction site, after construction has been completed for the day, the project contractor and/or the applicant shall perform visual inspections to ensure that all ignition risks are reduced or eliminated before leaving the worksite. • The fire prevention plan shall include a section dedicated to fire safety and prevention for project operations. The section shall identify state-of-the-art fire safety and prevention measures for project-related infrastructure that can ignite fires, such as power lines, battery storage facilities, and composting facilities. Fire safety and prevention measures shall include preventive measures such as monitoring systems (both electronic and manual) and alarms, cooling systems, and circuit breakers, where applicable, as well as fire suppression measures, such as requirements for enclosures, and fire extinguishers and firefighting equipment to be maintained on-site and/or within maintenance vehicles. <p>Successful implementation of this mitigation measure shall be demonstrated by the development of a fire prevention plan, in consultation with local fire authorities, that is documented and submitted to LA County for final approval. Additionally, successful implementation requires that the applicant and its contractor comply with all components of the fire prevention plan, that ignition from project construction and operational activities is promptly reported to the fire department(s) with jurisdiction, and that when it is safe to do so, any project-caused ignition is suppressed immediately.</p>	
Impact 3.18-4: Projects facilitated by the Draft 2045 CAP would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	None required.	Less than Significant
Impact 3.18-5: Projects facilitated by the Draft 2045 CAP could expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Mitigation: Implement Mitigation Measure 3.18-3.	Less than Significant
Impact 3.18-6: Projects facilitated by the Draft 2045 CAP could result in significant cumulative impacts with regard to impairing an adopted emergency response plan or emergency evacuation plan.	Mitigation: Implement Mitigation Measure 3.15-1.	Less than Significant
Impact 3.18-7: Projects facilitated by the Draft 2045 CAP could, due to slope, prevailing winds, and other factors, exacerbate cumulative wildfire risks, and would not thereby expose project occupants to significant pollutant concentrations from a wildfire.	None required.	Less than Significant

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation
Wildfire (cont.)		
<p>Impact 3.18-8: Projects facilitated by the Draft 2045 CAP could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing cumulative impacts on the environment.</p>	<p>Mitigation: Implement Mitigation Measure 3.18-3None</p>	<p>Less than Significant</p>
<p>Impact 3.18-9: Projects facilitated by the Draft 2045 CAP would not expose people or structures either directly or indirectly to significant cumulative risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.</p>	<p>None required.</p>	<p>Less than Significant</p>
<p>Impact 3.18-10: Projects facilitated by the Draft 2045 CAP could expose people or structures, either directly or indirectly, to a significant cumulative risk of loss, injury, or death involving wildland fires.</p>	<p>Mitigation: Implement Mitigation Measure 3.18-3.</p>	<p>Less than Significant</p>

ES.3.2 Significant and Unavoidable Impacts

Section 15126.2(b) of the CEQA Guidelines requires an EIR to describe any significant impacts, including those that can be mitigated but not reduced to less-than-significant levels. The Project would have a significant and unavoidable impact regarding the resource considerations identified in **Table ES-3, Significant and Unavoidable Impacts**.

**TABLE ES-3
SIGNIFICANT AND UNAVOIDABLE IMPACTS**

Resource Consideration	Location of Additional Details
Aesthetics	Section 3.2
The Project, as a result of projects facilitated by the Draft 2045 CAP, would:	
<ul style="list-style-type: none"> • Have a substantial adverse effect on a scenic vista at the Project level (Impact 3.2-1) and cumulatively (Impact 3.2-6). • Be visible from or obstruct views from a regional riding, hiking, or multiuse trail at the Project level (Impact 3.2-2) and cumulatively (Impact 3.2-7). • Substantially damage scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic buildings within a state scenic highway at the Project level (Impact 3.2-3) and cumulatively (Impact 3.2-8). • Substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations of governing scenic quality. (Public views are those that are experienced from a publicly accessible vantage point.) The impact would occur at the Project level (Impact 3.2-4) and cumulatively (Impact 3.2-9). 	
Agriculture and Forestry Resources	Section 3.3
<ul style="list-style-type: none"> • Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use at the Project level (Impact 3.3-1) and cumulatively (Impact 3.3-6). • Conflict with zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract at the Project level (Impact 3.3-2) and cumulatively (Impact 3.3-7). • Involve changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use at the Project level (Impact 3.3-5) and cumulatively (Impact 3.3-10). 	
Air Quality	Section 3.4
The Project, as a result of projects facilitated by the Draft 2045 CAP, would:	
<ul style="list-style-type: none"> • Conflict with or obstruct implementation of the applicable air quality plan at the Project level (Impact 3.4-1) and cumulatively (Impact 3.4-5). • Result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (Impact 3.4-2 and Impact 3.4-6). • Potentially expose sensitive receptors to substantial pollutant concentrations associated with localized air pollutant toxic air contaminant (TAC) emissions (Impact 3.4-3a) and cumulatively (Impact 3.4-7). 	
Biological Resources	Section 3.5
The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would:	
<ul style="list-style-type: none"> • Have a substantial adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). This impact would be significant and unavoidable at the Project level (Impact 3.5-2) and cumulatively (Impact 3.5-7). • Have a substantial adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS at the Project level (Impact 3.5-3) and cumulatively (Impact 3.4-8). • Interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. This impact would be significant and unavoidable at the Project level (Impact 3.5-5) and cumulatively (Impact 3.5-10). 	

TABLE ES-3 (CONTINUED)
SIGNIFICANT AND UNAVOIDABLE IMPACTS

Resource Consideration	Location of Additional Details
Noise	Section 3.13
The Project, as a result of projects facilitated by the Draft 2045 CAP, could:	
<ul style="list-style-type: none"> • Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. This impact would be significant and unavoidable at the Project level (Impact 3.13-1) and cumulatively (Impact 3.13-3). • Generate excessive groundborne vibration or groundborne noise levels. This impact would be significant and unavoidable at the Project level (Impact 3.13-2) and cumulatively (Impact 3.13-4). 	
Utilities and Service Systems	Section 3.17
<ul style="list-style-type: none"> • Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects at the Project level (Impact 3.17-1) and cumulatively (Impact 3.17-5). 	

ES.4 Alternatives

CEQA requires a lead agency to analyze a reasonable range of alternatives to the project that could feasibly attain the basic objectives of the project while substantially reducing or eliminating significant environmental effects. CEQA also requires an EIR to evaluate a “no project” alternative to allow decision makers to compare the impacts of approving a project with the impacts of not approving it. The alternatives development process, alternatives eliminated from further consideration, and alternatives considered in the EIR are described in greater detail in Chapter 4, *Alternatives*.

ES.4.1 Alternatives Eliminated from Further Consideration

Alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects (CEQA Guidelines Section 15126.6[c]). Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, also do not need to be considered (CEQA Guidelines Section 15126[f][2]). The potential alternatives listed below were eliminated from further consideration in this EIR because they failed to meet most of the Project objectives, were infeasible, and/or did not avoid or substantially reduce any significant environmental effects. See Section 4.3, *Alternatives Rejected from Detailed Consideration*, in Chapter 4, *Alternatives*, for details.

- Carbon Neutrality Target by 2045
- More Aggressive Timeline to Carbon Neutrality
- Zero-Emissions Agriculture, Forestry, and Other Land Use Sector
- Substantially Reduced Vehicle Miles Traveled Alternative
- Aquatic Impact Avoidance Alternative

ES.4.2 Alternatives Analyzed in Detail

The reasonable range of alternatives analyzed in this Draft EIR is summarized below. Three alternatives to the Project are considered in detail. These alternatives were selected for more detailed consideration through the screening process described in greater detail in Section 4.2, *Alternatives Development and Screening*.

ES.4.2.1 No Project Alternative

CEQA Guidelines Section 15126.6(e) requires an EIR to evaluate the impacts of a no project alternative to enable a comparison of the potential environmental consequences that would result with and without the proposed project. In this case, the No Project Alternative examines a scenario in which LA County would not approve the Draft 2045 CAP for implementation in the unincorporated areas, and none of the emissions reduction strategies, measures, or actions outlined in the 2045 CAP would be implemented and none of the benefits and co-benefits identified in the 2045 CAP would be realized. Further, the GHG emissions reduction strategies included in the Air Quality Element of the General Plan—known as the 2020 CCAP—expired in 2020. Accordingly, those strategies (which addressed emissions from land use, transportation, building energy, water consumption, and waste generation) would not continue to be implemented.

The No Project Alternative scenario would also include continued implementation of other plans and programs that would have the result of reducing GHG emissions to the extent that such plans and programs were adopted before January 3, 2022, when the Notice of Preparation was published. The No Project Alternative is essentially captured in the Draft 2045 CAP's Adjusted business-as-usual (BAU) forecast, which accounts for future growth under BAU conditions¹ but adjusts for federal, state, and LA County legislation and regulations that were implemented before development of the Draft 2045 CAP.² Further, efforts to reduce GHG emissions would continue outside the study area—for example, in incorporated areas of Los Angeles County, in adjacent jurisdictions, and in other locations outside the County where land use and related activities are governed by regional, state, or federal agencies, such as the Southern California Association of Governments, California Air Resources Board, U.S. Forest Service, and National Park Service. This alternative would not provide a clear pathway for LA County to meet and exceed the statewide 2030 GHG emissions reduction goal identified in SB 32 or to meet the 2045 carbon neutrality goal established by Executive Order B-55-18.

In addition, the No Project Alternative would not meet any of the Project objectives. For example, the No Project Alternative would not implement the climate action policies of the General Plan (Objective 1); would not provide a road map to achieve GHG reductions to meet the GHG emissions reduction targets (Objective 3); would not encourage sustainable housing production (Objective 4); and would not demonstrate a level of GHG emissions below which

¹ The “business-as-usual, forecast assumes that no action is taken to reduce GHG emissions in the County. 2018 emissions are projected forward using growth indicators such as population, housing, and employment.

² These adjustments include implementation of the California Energy Commission's 2019 and 2023 Title 24 building energy efficiency requirements, the Renewable Portfolio Standards (SB 350), the California Department of Resources Recycling and Recovery's 75 percent waste diversion initiative (AB 341), the Pavley and Advanced Clean Car Standards (AB 1493), and the Low Carbon Fuel Standards (Executive Order S-01-07).

the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (“qualified CAP”) (Objective 5). Nonetheless, as required by CEQA, the No Project Alternative has been carried forward for more detailed review.

ES.4.2.2 Alternative 1: Carbon Offset Alternative

Under Alternative 1, in addition to implementing the measures and actions called for by the Draft 2045 CAP, LA County would reduce GHG emissions by purchasing carbon offsets. Carbon offset projects could increase or protect carbon sequestration, invest in solar or wind projects, improve water or energy efficiency, capture methane at animal farms or landfills, replace high-global-warming-potential gas use with a gas that has a lower global warming potential, or implement other measures. To achieve the greatest environmental co-benefits to the County, priority would be given, from highest to lowest, to offsets purchased locally (from within Los Angeles County), regionally (from within Southern California), within California, outside of California but within the Pacific Southwest (within Arizona, Hawaii, Utah, or Nevada), and elsewhere in the United States.

In January 2022, during the scoping period for this EIR, the cost of carbon allowances in the California cap-and-trade system was approximately \$28 per metric ton (ClimateWire 2022). The compliance carbon offsets that are allowable in California’s cap-and-trade system tend to be priced about the same as allowances. However, LA County would have to purchase carbon offsets from the voluntary market, which is not regulated. Prices in the voluntary carbon market are generally lower, but can vary widely depending on the type, size, and location of the project generating the offset, as well as the protocol or standard under which it was developed. A spot check of over-the-counter reputable offset retailers, conducted in April 2022, reveals current prices for voluntary offsets ranging from approximately \$15 to \$25 per metric ton of carbon dioxide equivalent (MTCO_{2e}).³ Based on these prices, the 2022 purchase of 1.25 million MTCO_{2e} could range from \$17 million to \$36 million per year. Funding sources would have to be identified, but theoretically could be sourced from the LA County General Fund, existing or new development fees, or other sources.

ES.4.2.3 Alternative 2: Zero Net Energy Buildings Alternative

A building is a zero net energy (ZNE) building if it is energy-efficient and if the actual energy it consumes annually on a source-energy basis is less than or equal to the on-site renewable generated energy (California Department of General Services 2017). Stated another way, ZNE buildings produce enough renewable energy to meet their own annual energy consumption requirements, thereby reducing the use of nonrenewable energy in the building sector. These buildings achieve ZNE first through high levels of energy efficiency to minimize energy use, then through the addition of on-site renewable power generation and renewable energy storage systems (e.g., batteries).

³ Offset prices offered by four retailers were reviewed on April 11, 2022: atmosfair (<https://www.atmosfair.de/en>); CoolEffect (<https://www.cooleffect.org>), NativeEnergy (<https://native.eco>). and TerraPass (<https://www.terrapass.com>).

Energy efficiency measures include building design elements that reduce energy demand such as high-performance building envelopes, air barrier systems, daylighting, sun control and shading design, window selection and glazing, passive solar heating, natural ventilation, and water conservation. Energy use could be managed with efficient equipment and systems, such as energy-efficient lighting; electric lighting controls; high-performing heating, ventilation, and air-conditioning; and energy-conversion devices. Once efficiency measures have been incorporated, the remaining energy needs of the building can be met with on-site renewable energy generation and storage. Common on-site electricity generation strategies include photovoltaic solar panels on rooftops or over surface parking, and solar water heating.

In 2008, the California Public Utilities Commission (CPUC) adopted (and then in 2011, updated) the *California Energy Efficiency Strategic Plan* (CPUC 2008; Engage 360 2011). This strategic plan outlined ambitious goals for the development of ZNE buildings for the 2009 to 2020 time period. In April 2012, Governor Edmund G. Brown Jr. furthered the goals of the California Energy Efficiency Strategic Plan when he issued Executive Order B-18-12, which ordered that all new state buildings and major renovations beginning design after 2025 be constructed as ZNE facilities. The executive order included an interim target for 50 percent of new facilities beginning design after 2020 to be ZNE. Executive Order B-18-12 also directed state agencies to take measures toward achieving ZNE for 50 percent of the square footage of existing state-owned building area by 2025.

Although the strategic plan has reached its sunset, and although Executive Order B-18-12 does not directly apply to local agencies, the goals of both measures remain relevant to the reduction of GHG emissions by local governments. As the 2011 Update to the Strategic Plan recognized (Engage 360 2011):

Local governments have significant powers that can improve the energy efficiency of new and existing buildings. . . . Local governments can be significant energy end users in their own buildings and facilities, from public schools to wastewater treatment plants to City Hall. These facilities provide an opportunity to “lead by example” by improving energy efficiency, reducing CO₂ emissions, and cutting government energy bills.

In addition to implementation of the Draft 2045 CAP measures and actions, a Zero Net Energy Buildings Alternative would include the following elements:

- All new residential and commercial construction in unincorporated areas of the County would be ZNE by 2023.
- 50 percent of residential and commercial buildings in unincorporated areas of the County would be retrofitted to ZNE by 2030.
- Projects in unincorporated areas of the County that voluntarily exceed state and local minimum energy codes would be rewarded with expedited permitting and favorable fee structures.
- 50 percent of new major renovations of LA County buildings would be ZNE by 2025.
- The energy usage footprint of local government buildings would be 50 percent below 2015 levels by 2030.

ES.4.3 Comparison of Alternatives

Draft EIR Section 4.6, *Comparison of Alternatives*, compares the potential environmental impacts of the Project to those of the No Project Alternative, Alternative 1, and Alternative 2. See **Table 4-4** in Chapter 4, *Alternatives*, which provides a comparative summary.

ES.4.4 Environmentally Superior Alternative

The CEQA Guidelines define the *environmentally superior alternative* as that alternative with the least adverse impacts on the project area and its surrounding environment. The No Project Alternative is considered the environmentally superior alternative for CEQA purposes because it would avoid all impacts of the Project, even though air pollutant and GHG emissions would be highest among all alternatives under the No Project Alternative. However, the No Project Alternative would fail to meet the basic objectives of the Project. Additionally, selection of the No Project Alternative would result in realization of none of the benefits identified in the Draft 2045 CAP. Because the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. (CEQA Guidelines Section 15126.6[e][2].)

In this EIR, Alternative 1 is considered the environmentally superior alternative for CEQA purposes because it would result in less impacts in six resource areas relative to the Project (air quality, energy, GHG emissions, hydrology and water quality, transportation, and wildfire) and greater impacts than the Project in only one resource area (utilities and service systems). Alternative 1 would have same impacts as the Project with respect to the remaining resources. See Table 4-4 in Chapter 4, *Alternatives*, for details. It should be noted, however, that Alternative 1 does have some drawbacks compared to the Project. Its costs would be substantially higher, ranging from an estimated \$17 million to \$36 million more per year. Also, communities, including disadvantaged communities, generally prefer GHG emissions reductions to be accomplished on-site, so that on-site reduced on-site air pollutant emissions are a co-benefit. With the possibility of Alternative 1's carbon offset projects being implemented outside the County and as far away as other states in the Pacific Southwest, local co-benefits may not be accomplished on-site.

ES.5 Areas of Controversy and Issues to Be Resolved

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify areas of controversy known to the lead agency. LA County has identified areas of controversy as including controversial issues raised in agency and public comments received during scoping, which are included in **Appendix A.5** to this Draft EIR. Briefly, scoping input expressed potential controversy related to: specific elements of the Draft 2045 CAP, including on Strategies 1, 2, 3, 5, 6, 8, and 9; and the impacts of electrification, particularly including health and safety considerations associated with grid reliability in an all-electric future, and the impacts of future renewable energy development (including ground-mounted, utility-scale solar development) and related infrastructure that could be facilitated by Draft 2045 CAP measures and actions.

Section 15123(b)(3) of the CEQA Guidelines also requires that an EIR identify issues to be resolved, which include the choice among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved:

- Choose among alternatives.
- Determine whether the recommended mitigation measures should be adopted or modified.
- Determine whether additional mitigation measures should be applied to the Project.

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CHAPTER 1

Introduction

1.1 Project Overview

The Draft *2045 Los Angeles County Climate Action Plan* (2045 CAP or Project) would require an amendment to the *Los Angeles County General Plan 2035* (General Plan) to replace the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP) (County Planning 2015a), which is an implementing component of the General Plan’s Air Quality Element (County Planning 2015b). In early 2020, the County of Los Angeles (LA County¹) released a public discussion draft of the 2045 CAP (Public Discussion Draft). After receiving comments from stakeholders, LA County determined the need to substantially revise and update the Public Discussion Draft. Revisions to the Public Discussion Draft that are reflected in the Draft 2045 CAP include the following:

- An updated greenhouse gas (GHG) emissions inventory for 2018.
- New emissions forecasts for 2030, 2035, and 2045.
- New GHG emissions targets for 2030 and 2035, and a new aspirational goal for 2045.
- A suite of GHG reduction strategies, measures, and actions revised in response to public comments to be more clear, specific, feasible, and quantifiable.
- A technical modeling appendix to explain the Draft 2045 CAP’s GHG emissions reduction estimates.
- A consideration of environmental justice and equity concerns.
- A new development review consistency checklist to allow future projects to streamline GHG emissions analyses pursuant to the California Environmental Quality Act (CEQA)² as anticipated by CEQA Guidelines Section 15183.5 by using the Draft 2045 CAP.

1.2 Purpose of This Document

This program environmental impact report (EIR) is an informational document intended to disclose to the public and decision-makers the environmental impacts of the Draft 2045 CAP. LA County is the lead agency under CEQA and is responsible for considering adoption and implementation of the

¹ Please note the use of the following terms in this document and the 2045 CAP: “County” refers to the unincorporated areas of Los Angeles County; “Countywide” refers to Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; and “LA County” refers to County of Los Angeles government.

² This analysis is being prepared CEQA (Public Resources Code Section 21000 et seq.) and its implementing regulations, the CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.).

Draft 2045 CAP. LA County has prepared this draft program EIR (Draft EIR) to document its analysis of the environmental impacts of the Draft 2045 CAP described in Chapter 2, *Project Description*, and the alternatives described in Chapter 4, *Alternatives*, to assist the decision-making body in determining whether to approve the Draft 2045 CAP.

All resource areas in the CEQA Guidelines Appendix G Environmental Checklist have been studied. See Appendix A.1, *Notice of Preparation and Initial Study*, regarding mineral resources, public services, and recreation. These environmental resource areas have been screened out of detailed review based on evidence that the Draft 2045 CAP would have no impact or a less-than-significant impact on the environment. For the remaining resource considerations, the Initial Study either stated that while significant impacts are not anticipated, the EIR would provide further evaluation or determined that a potentially significant impact could result. Accordingly, in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, Sections 3.2 through 3.18 document a more detailed analysis as to whether the Draft 2045 CAP would result in significant environmental impacts on aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, transportation, tribal cultural resources, utilities and service systems, and wildfire.

1.3 Program-Level Analysis and Tiering

This is a program EIR. A *program EIR* is a type of EIR prepared pursuant to CEQA that is used to evaluate a plan or program that has multiple components or actions that are related either geographically; as logical parts in the chain of contemplated actions; in connection with application of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental impacts which can be mitigated in similar ways (Public Resources Code Sections 21068.5 and 21093; California Code of Regulations Title 14, Section 15168[a]). It evaluates the general impacts of the plan or program, but does not examine the potential site-specific impacts of the many individual projects that may be proposed in the future consistent with the plan.

This program EIR describes planned activities that would implement the Draft 2045 CAP and addresses related environmental impacts as comprehensively as possible, based on information reasonably available at the time the Notice of Preparation (NOP) was published. Nonetheless, this program EIR is a “first-tier” document that focuses on the “big picture” and anticipates later environmental review of specific projects.³

Later activities facilitated by Draft 2045 CAP goals would be examined in the light of this program EIR to determine whether an additional environmental review is needed. For example, if a

³ *Tiering* is defined in CEQA Guidelines Section 15385 as referring “to the coverage of general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs or ultimately site-specific EIRs incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared. Tiering is appropriate when the sequence of EIRs is from a...program EIR to a program, plan, or policy EIR of lesser scope or to a site-specific EIR.”

later activity would have impacts that are not examined in this EIR, then preparation of either a project-specific negative declaration or EIR could be appropriate. That later analysis may tier to this EIR as provided in CEQA Guidelines Section 15152. LA County would incorporate the mitigation measures developed in the program EIR into later activities in furtherance of the Draft 2045 CAP's goals. Alternatively, if LA County finds (pursuant to CEQA Guidelines Section 15162) that no subsequent negative declaration or EIR would be required, then LA County could approve the activity as being within the scope of the project covered by this program EIR, and no additional environmental review would be required.

1.4 CEQA Process Overview

CEQA requires state and local government agencies to consider the environmental consequences (or “impacts”) of projects over which they have discretionary authority before taking action on those projects. As defined in CEQA Guidelines Section 15378, a *project* is any action that “has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.” LA County considered the impacts of the Draft 2045 CAP in an initial study before determining that an EIR would provide the appropriate level of CEQA documentation for the Project. The Initial Study is included in Appendix A.1, *Notice of Preparation and Initial Study*.

1.4.1 Public Involvement

The Los Angeles County Climate Action Plan (CAP) update project began in summer 2019. The first steps of the update required gathering GHG emissions data and discussing best practice strategies for GHG emissions reductions. The initial analysis of potential emissions reductions began at the end of 2019 along with the initial drafting of an initial study assessment. During this time, the notification and consultation process with California Native American tribes began pursuant to Senate Bill (SB) 18 and Assembly Bill (AB) 52, each of which is summarized below.

1.4.1.1 Tribal Consultation Pursuant to Assembly Bill 52

Pursuant to the AB 52 tribal consultation process, CEQA lead agencies consult with tribes that are traditionally and culturally affiliated with the project area and that have requested consultation pursuant to Public Resources Code Section 21080.3.1. The purpose of the consultation is to determine whether a proposed project may result in a significant impact on tribal cultural resources.

In letters dated November 13, 2019, LA County sent notification and requests to consult pursuant to AB 52 to five representatives of Native American tribes: Gabrieleno Band of Mission Indians–Kizh Nation; Gabrieleno Tongva San Gabriel Band of Mission Indians; Fernandeano Tataviam Band of Mission Indians; San Manuel Band of Mission Indians; and Tejon Indian Tribe. No responses were received pursuant to AB 52. Therefore, AB 52 tribal consultation is concluded pursuant to Public Resources Code Section 21080.3.2(b).

Copies of all AB 52 outreach communications are included in Appendix G, *Tribal Cultural Resources*.

1.4.1.2 Senate Bill 18 Consultation Process

SB 18 (Government Code Section 65352.3) outlines the process by which cities and counties contact and consult with California Native American tribes before amending or adopting a general plan or specific plan:

- (1) LA County must notify the tribes identified on a contact list, maintained for this purpose by the Native American Heritage Commission (NAHC), regarding the opportunity to consult for the purpose of preserving, or mitigating impacts on, cultural places located on land within LA County's jurisdiction that would be affected by the proposed plan adoption or amendment. Tribes generally have 90 days from the date on which they receive notification to request consultation (Government Code Section 65352.3).
- (2) LA County must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within LA County's jurisdiction, regardless of whether prior consultation has taken place. The referral must allow a 45-day comment period (Government Code Section 65352).
- (3) LA County must send notice of a public hearing at least 10 days before the hearing to tribes that have filed a written request for such notice (Government Code Section 65092). See Section 3.16.1.3, *Regulatory Setting*, in Section 3.16, *Tribal Cultural Resources*, for additional information about SB 18.

In letters dated November 13, 2019, LA County sent notification and requests to consult pursuant to SB 18 to the 25 individuals and tribes identified in Section 3.16.1.2, *Environmental Setting*, in Section 3.16, *Tribal Cultural Resources*. Five responses were received from the individuals/organizations pursuant to SB 18. The Juaneño Band of Mission Indians, Acjachemen Nation-Belardes; Morongo Band of Mission Indians; and San Manuel Band of Mission Indians indicated that they had no concerns regarding the Project and did not request consultation. The Santa Ynez Band of Chumash Indians also did not request consultation; however, they indicated that should supplementary literature reveal additional information, or if the scope of work were to change, they would like to be notified.

The Coastal Band of Chumash Indians requested consultation. In response, LA County sent emails on November 21, 2019, and January 8, 2020, to schedule a consultation meeting with the Coastal Band of Chumash Indians, but no response was received. LA County also sent a letter via regular mail and email on March 11, 2020, to once again schedule a consultation call with the Coastal Band of Chumash Indians; however, no response was received.

Copies of all SB 18 outreach communications are included in Appendix G, *Tribal Cultural Resources*.

1.4.1.3 Public Review Draft Climate Action Plan

As mentioned above, LA County released a public discussion draft of the 2045 CAP in early 2020. After receiving comments from the public, LA County determined the need to substantially revise and update the Public Discussion Draft.

1.4.1.4 Draft 2045 Climate Action Plan

The Draft 2045 CAP is available for review (under separate cover) at the same time as this Draft EIR. Briefly, it contains an executive summary and four chapters, as well as Appendices A through H, which provide additional detail on topics covered in the Draft 2045 CAP. Each component of the Draft 2045 CAP is summarized in Section 2.4 of Chapter 2, *Project Description*.

1.4.1.5 Scoping

CEQA Guidelines Section 15083 provides that a “Lead Agency may...consult directly with any person...it believes will be concerned with the environmental effects of the project.” *Scoping* is the process of early consultation with affected agencies and the public prior to completion of a Draft EIR. Section 15083(a) states that scoping can be “helpful to agencies in identifying the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in depth in an EIR and in eliminating from detailed study issues found not to be important.” The purpose of scoping is to determine the scope of information and analysis to be included in an EIR, and thus, to ensure that an appropriately comprehensive and focused EIR will be prepared that provides a firm basis for informed decision-making.

The scoping process for this EIR included the following:

- (1) **Notice of Preparation:** LA County published and distributed an NOP on December 23, 2021, which was accompanied by an initial study, to advise interested local, regional, state, and federal agencies, as well as the public, that an EIR would be prepared for the Project. LA County sent the NOP package to the Governor’s Office of Planning and Research, State Clearinghouse; potentially affected federal, state, and local agencies; and others included on a distribution list established for this Project that included tribes, nearby property owners, and other interested parties. The NOP and Initial Study also were posted in the office of the LA County Clerk and online from December 29, 2021, through February 1, 2021. The NOP also was published in the following 14 different newspapers throughout Los Angeles County on or before January 3, 2022: *Acton/Agua Dulce News*, *Antelope Valley News*, *Gardena Valley News*, *Glendale Independent*, *La Opinión*, *Sentinel*, *Malibu Times*, *Pasadena Star-News*, *San Gabriel Valley News*, *The Acorn*, *The Argonaut*, *The Daily Breeze*, *The Signal*, and *Whittier Daily*. The NOP, Initial Study, and mailing list are provided in Appendix A of this EIR.
- (2) **Public scoping meeting:** A virtual scoping meeting was held via Zoom on January 13, 2022, at 5:00 p.m. to provide information to the public about the Project and the CEQA process, and to solicit input from attendees. LA County provided details about the Draft 2045 CAP (including the Project objectives), as well as the CEQA process (including the timeline and schedule for environmental review, CEQA resource areas, and the purpose of the scoping meeting), and then opened the meeting to receive comments and questions. Information about the location of documents for review, contact information for the receipt of scoping input, and the deadline to provide scoping input also was provided. The presentation slides are provided in Appendix A.4.
- (3) **Scoping period:** The EIR scoping period lasted from January 3, 2022, through and including February 1, 2022. In addition to oral comments made at the public meeting, written input was received from 21 entities. See **Table 1-1**, *Providers of Scoping Letters*. Appendix A.5 presents all input received during the scoping period. Scoping input was received regarding

the project description, alternatives, impacts and mitigation generally, aesthetics, agriculture and forestry, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, transportation, tribal cultural resources, utilities and service systems, wildfire, and CEQA procedural comments. Scoping input also was received regarding comments outside the scope of CEQA. All input received pursuant to the scoping period has been considered in the preparation of this EIR.

**TABLE 1-1
PROVIDERS OF SCOPING LETTERS**

Letter No.	Entity or Organization	Signatory
1	Acton Town Council	Jeremiah Owen, President
2	Association of Rural Town Councils c/o Three Points Liebre Mountain Town Council	Susan Zahnter, Director
3	Ballona Ecosystem Education Project	Kathy Knight, Board Member
4	BizFed Los Angeles County Business Federation	Brissa Sotelo-Vargas (BizFed Chair, Valero), David Fleming (BizFed Founding Chair), Tracy Hernandez (BizFed Founding CEO, IMPOWER, Inc.)
5	Boyle Heights–East Los Angeles Coalition	Sofia G. Quiñonez
6	Building Industry Association of Southern California, Inc., Los Angeles/Ventura Chapter	Carlos Rodriguez, Chief Policy Officer
7	California Department of Fish and Wildlife	Erinn Wilson-Olgin, Environmental Program Manager I, South Coast Region
8	California Independent Petroleum Association	Rock Zierman, Chief Executive Officer
9	Center for Biological Diversity	J. P. Rose, Staff Attorney
10	Dr. Suzanne De Benedittis, Ph.D.	
11	Endangered Habitats League	Dan Silver, Executive Director
12	Grassroots Coalition	Patricia McPherson
13	Robert Haw	
14	Rosalind Helfand	
15	Kathleen Kunysz	
16	League of Women Voters of Los Angeles County	Fatima Malik, President
17	Native American Heritage Commission	Andrew Green, Cultural Resources Analyst
18	San Manuel Band of Mission Indians	Ryan Nordness, Cultural Resources Analyst
19	Southern California Association of Governments	Frank Wen, Ph.D.
20	Sheila Swift	
21	Kathleen Trinity	

SOURCE: Data compiled by Environmental Science Associates in 2022

1.4.2 Draft EIR

The Draft EIR is informed by the scoping process and is organized pursuant to Article 9 of the CEQA Guidelines (California Code of Regulations Title 14, Sections 15120–15132), which identifies the required contents of an EIR.

1.4.3 Agency and Public Review

As required by CEQA, this Draft EIR is being made available for agency and public review and comment for a period of at least 45 days. Copies were provided to the State Clearinghouse for circulation to interested state agencies. Printed copies of the Draft EIR and electronic copies of all appendices and all documents referenced in the Draft EIR are available for public review during normal hours at the following libraries:

A. C. Bilbrew Library
150 E. El Segundo Blvd.
Los Angeles, CA 90061

Hacienda Heights Library
16010 La Monde St.
Hacienda Heights, CA 91745

Acton Agua Dulce Library
33792 Crown Valley Road
Acton, CA 93510

La Crescenta Library
2809 Foothill Blvd.
La Crescenta, CA 91214

Charter Oak Library
20540 E. Arrow Highway, Suite K
Covina, CA 91724

Stevenson Ranch Library
25950 The Old Road
Stevenson Ranch, CA 91381

East Los Angeles Library
4837 E. 3rd St.
Los Angeles, CA 90022

Topanga Library
122 N. Topanga Canyon Blvd.
Topanga, CA 90290

A digital copy of the Draft EIR is available on the Project website at <https://planning.lacounty.gov/site/climate/los-angeles-county-cap/>. A printed copy of the Draft EIR is available for public review by appointment during normal business hours at the LA County Department of Regional Planning's headquarters office (320 W. Temple Street, Los Angeles, CA 90012).

Notifications of the availability of the Draft EIR and information about how to access it were sent directly to potentially affected agencies; the office of the LA County Clerk; and the tribal entities identified in Section 6.2, *Organizations and Persons Consulted and Recipients of the Draft EIR*, of Chapter 6, *Report Preparation*. Notice of the availability of the Draft EIR also was published on LA County's CEQA Notice web page, the website of the office of the LA County Clerk, and in the 14 newspapers of general circulation noted above.

Please submit any written comments on the Draft EIR to the following address:

Los Angeles County Department of Regional Planning
Attention: Thuy Hua
320 West Temple Street, 13th Floor
Los Angeles, CA 90012
Email: climate@planning.lacounty.gov

LA County will review all substantive comments received during the review period and provide written responses in a Final EIR. The Final EIR will be made available to agencies and the public, and will provide a basis for agency decision-making.

1.4.4 Final EIR

After the end of the Draft EIR’s public review period, LA County will prepare a Final EIR for consideration by the public and LA County decision-makers. The Final EIR will include a list of commenters, comments and recommendations received on the Draft EIR either verbatim or in summary, written responses to significant environmental points raised in the review and consultation process from comments received, and revisions to the Draft EIR made in response to the comments received. The Planning Commission and Board of Supervisors will review and consider the Final EIR before taking action on the Project.

1.4.5 Findings of Fact and Decision-Making

After publication of the Final EIR and before deciding whether to certify the EIR or approve, modify, or deny the Project, LA County will make the following findings regarding each significant impact on the environment, consistent with Public Resources Code Section 21081:

- (1) Changes or alterations have been required in, or incorporated into, the Project that mitigate or avoid the significant effects on the environment;
- (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency; or
- (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

With respect to any significant impacts that are subject to the third finding, LA County must find that specific overriding economic, legal, social, technological, or other benefits of the Project outweigh its potential to result in significant unavoidable adverse impacts on the environment before it could approve the Project.

1.5 Scope and Organization of this EIR

This EIR is organized as follows:

- **Executive Summary.** The Executive Summary summarizes the Project, purpose and uses of the EIR, Project impacts and mitigation measures, alternatives to the Project and impact comparisons, the CEQA process, and areas of controversy and issues to be resolved.
- **Chapter 1, *Introduction*.** The Introduction introduces the Project; the purpose of the EIR; the CEQA process, including discussion of program-level review and tiering; and the organization of the EIR.
- **Chapter 2, *Project Description*.** The Project Description describes the Project area, Project purpose and objectives, and the background for the Draft 2045 CAP and its relationship to the General Plan; the contents of the Draft 2045 CAP; existing emissions; the Draft 2045 CAP’s GHG emissions inventory and reduction potential; GHG emissions strategies and actions including the Draft 2045 CAP, and explanations of how the Draft 2045 CAP would be implemented, how monitoring and reporting would occur in connection with the Draft 2045

CAP; and identification of the approvals that would be required (including environmental review and consultation).

- **Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*.** Chapter 3 introduces the environmental analysis and provides a detailed evaluation of potential impacts of the Draft 2045 CAP on aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, transportation, tribal cultural resources, utilities and service systems, and wildfire. Each resource section describes the relevant environmental and regulatory setting, significance criteria considered, and methodology and significance thresholds used, and documents the analysis of potential impacts.
- **Chapter 4, *Alternatives*.** Chapter 4 describes the alternatives development and screening process and outcome, describes the potential alternatives carried forward for detailed analysis as well as those that were rejected from detailed consideration, compares the alternatives analyzed in detail (including the No Project Alternative), and discusses the environmentally superior alternative.
- **Chapter 5, *Other CEQA Considerations*.** Chapter 5 documents LA County’s consideration of significant unavoidable impacts, significant irreversible environmental changes, and growth-inducing impacts that may result if the Draft 2045 CAP is approved and implemented.
- **Chapter 6, *Report Preparation*.** Chapter 6 identifies those who participated in the preparation of the EIR, including LA County personnel and consultants, as well as the organizations and persons who were consulted during the preparation of the EIR.
- **Chapter 7, *References*.** Chapter 7 identifies the reference materials relied upon preparing the EIR, except for the project-specific technical studies prepared specifically for the Project, which are included in the Appendices. Copies of cited reference material are available in the locations identified in the Notice of Availability of the Draft EIR.
- **Appendices.** The Appendices contain Project-specific documents relating to the scoping process and Project-specific technical information relied upon in the drafting of the EIR. They include the following:
 - Appendix A: Scoping
 - Appendix B: Air Quality
 - Appendix C: Biological Resources
 - Appendix D: Greenhouse Gas Emissions
 - Appendix E: Noise
 - Appendix F: Transportation
 - Appendix G: Tribal Cultural Resources

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CHAPTER 2

Project Description

2.1 Project Area

The Project area for the Draft *2045 Los Angeles County Climate Action Plan* (2045 CAP) consists only of the unincorporated areas of Los Angeles County (referred to herein as the “County,” “unincorporated areas,” or “unincorporated County,” as applicable¹). These areas occupy approximately 1,696,000 acres, or 2,650 square miles (approximately 65 percent of the total land area of Los Angeles County), as identified in **Figure 2-1**, *Map of Unincorporated Los Angeles County*.² Los Angeles County is geographically diverse:

- The unincorporated areas in northern Los Angeles County are covered by large amounts of sparsely populated land, including Angeles National Forest and parts of Los Padres National Forest and the Mojave Desert.
- In western Los Angeles County, the unincorporated areas include Marina del Rey and the Santa Monica Mountains.
- The unincorporated areas in southern and eastern Los Angeles County consist of many non-contiguous land areas, often referred to as the *unincorporated urban islands*, including areas in South Los Angeles, East Los Angeles, and the San Gabriel Valley.

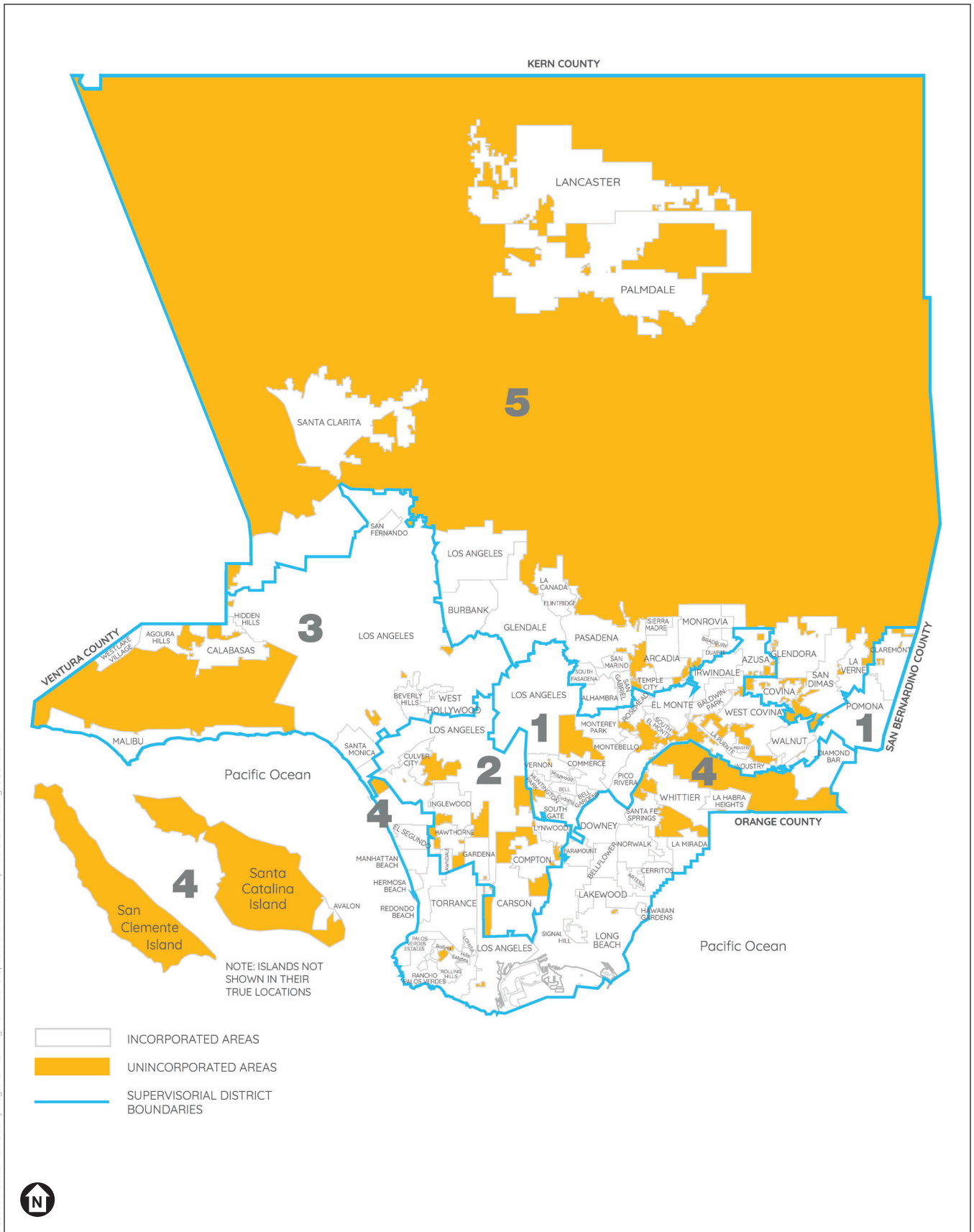
2.2 Background and Relation to LA County Plans and Statewide Emissions Targets

2.2.1 Relationship to the Los Angeles County General Plan

The *Los Angeles County General Plan 2035* (General Plan) provides the policy framework and establishes the long-range vision for how and where the unincorporated areas (County Planning 2015a). It establishes goals, policies, and programs to foster healthy, livable, and sustainable communities and provides a guide for future land use, housing, and economic development. The

¹ This document and the 2045 CAP use the following terminology: “County” refers to the unincorporated areas of Los Angeles County; “Countywide” refers to Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; and “LA County” refers to County of Los Angeles government.

² This area has been selected as the most operationally feasible extent of implementation. In these locations, future projects facilitated by the strategies and measures of the Draft 2045 CAP could be made subject to Los Angeles County’s land use oversight and enforcement authority, which does not extend to land, facilities, or infrastructure outside the unincorporated areas. Although the County encourages other governmental entities to undertake actions to reduce greenhouse gas emissions within their own jurisdictions, any such other actions would not enable the County to create emissions reductions.



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SOURCE: Los Angeles County Climate Action Plan
March 2020 Public Review Draft

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 2-1
Map of Unincorporated Los Angeles County



General Plan includes a Planning Areas Framework, which serves as a mechanism for local communities to work with LA County to develop plans that respond to their unique and diverse characters.

LA County adopted the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP) in 2015 as a component of the Air Quality Element of the General Plan (County Planning 2015b). The 2020 CCAP aligned with General Plan goals, policies, and programs, as well as several other existing programs in Los Angeles County. The 2020 CCAP was the first attempt to set greenhouse gas (GHG) emissions reduction goals in Los Angeles County. Although the targets for the 2020 CCAP were ultimately not fully met, the plan provided a road map for implementing LA County’s GHG reduction measures. The 2020 CCAP actions were implemented through LA County Code amendments and programs related to climate action.

The Draft 2045 CAP builds on previous work and defines new reduction targets beyond the year 2020. Approval of the Draft 2045 CAP would result in updates to the General Plan as shown in **Table 2-1, Proposed Updates to the Los Angeles County General Plan 2035 Air Quality Element**, and **Table 2-2, Proposed Updates to the Los Angeles County General Plan 2035 Implementation Program**. In both tables, updates are shown in tracked changes, with additions underlined and deletions shown in ~~strike-out~~. The proposed update to the General Plan Air Quality Element sets the policy foundation for actions in the Draft 2045 CAP that were not previously addressed in the 2020 CCAP.

**TABLE 2-1
PROPOSED UPDATES TO THE LOS ANGELES COUNTY GENERAL PLAN 2035 AIR QUALITY ELEMENT**

Topic	Policy
Goal AQ 1: Protection from exposure to harmful air pollutants.	
Air Pollutants	Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions, with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors.
	Policy AQ 1.2: Encourage the use of low or no volatile organic compound (VOC) emitting materials.
	Policy AQ 1.3: Reduce particulate inorganic and biological emissions from construction, grading, excavation, and demolition to the maximum extent feasible.
	Policy AQ 1.4: Work with local air quality management districts to publicize air quality warnings, and to track potential sources of airborne toxics from identified mobile and stationary sources.
	Policy AQ 1.5: Encourage new residential buildings and other sensitive land uses in areas with high levels or localized air pollution be designed to achieve good indoor air quality through landscaping, ventilation systems, or other measures.
Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation, and air quality planning.	
Air Quality, Land Use, & Transportation	Policy AQ 2.1: Discourage the siting of sensitive uses, such as residences, schools, senior centers, daycare centers, medical facilities, or parks with active recreational facilities within proximity to major sources of air pollution, such as freeways.
	Policy AQ 2.2: Participate in, and effectively c <u>Coordinate with local, regional, state, and federal agencies the to development and implementation of community and regional air quality plans and programs.</u>
	Policy AQ 2.3: Support the conservation of natural resources and vegetation to reduce and mitigate air pollution impacts. <u>Encourage land use development and design that integrates GHG emission reduction strategies through increasing residential density and infill development, especially affordable housing and diversity of destinations near High-Quality Transit Areas.</u>

**TABLE 2-1 (CONTINUED)
PROPOSED UPDATES TO THE LOS ANGELES COUNTY GENERAL PLAN 2035 AIR QUALITY ELEMENT**

Topic	Policy
Goal AQ 2 (cont.)	
Air Quality, Land Use, & Transportation (cont.)	Policy AQ 2.4: Coordinate with different agencies to minimize fugitive dust from different sources, activities, and uses.
	<u>Policy AQ 2.5: Expand infrastructure to accommodate transit and alternative modes of transportation to serve residential, employment, and recreational trips.</u>
	<u>Policy AQ 2.6: Explore the feasibility of parking strategies that limit or remove parking minimums to reduce vehicular trips.</u>
	<u>Policy AQ 2.7: Encourage and support the development and implementation of Zero-Emission technology and infrastructure in an equitable manner to ensure access to all County residents.</u>
	<u>Policy AQ 2.8: Electrify entire County light-duty and bus and shuttle fleet vehicles.</u>
	<u>Policy AQ 2.9: Encourage the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment and freight decarbonization technologies, such as charging infrastructure for freight vehicles.</u>
Goal AQ 3: Implementation of plans and programs to address the impacts of climate change and <u>reduce greenhouse gas emissions through climate action and mitigation.</u>	
<u>Climate Change</u> <u>Climate Action</u> <u>and Mitigation</u>	Policy AQ 3.1: Facilitate the implementation and maintenance of the LA County Climate Action Plan to ensure that the County reaches its climate change action and greenhouse gas emission reduction goals.
	<u>Policy AQ 3.2: Reduce energy consumption in existing buildings and County operations through energy efficiency retrofits.</u>
	Policy AQ 3.3: Reduce water consumption in County operations. Encourage carbon sequestration through sustainable agricultural practices and conservation of agricultural and working lands, forest lands, and wildlands.
	Policy AQ 3.4: Participate in local, regional and state programs to reduce greenhouse gas emissions.
	Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.
	<u>Policy AQ 3.6: Support local rooftop solar facilities power generation on new and existing buildings and parking lots.</u>
	Policy AQ 3.7: Support and expand urban forest programs within the unincorporated areas.
	Policy AQ 3.8: Develop, implement, and maintain countywide climate change adaptation strategies to ensure that the community and public services are resilient to climate change impacts.
	<u>Policy AQ 3.8: Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities.</u>
	<u>Policy AQ 3.9: Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County.</u>
	<u>Policy AQ 3.10: Reduce the life-cycle carbon intensity of building materials and phase out the use of high-global-warming-potential refrigerants.</u>
	<u>Policy AQ 3.11: Promote sustainable waste practices through public outreach, educational programs, and mandates.</u>
	<u>Policy AQ 3.12: Ensure and promote the availability of organics waste and recyclable materials diversion services for beneficial use, such as composting, energy production, and upcycling.</u>
<u>Policy AQ 3.13: Collaborate with environmental organizations, businesses, schools, and the general public to promote the importance of climate action.</u>	

**TABLE 2-2
PROPOSED UPDATES TO THE LOS ANGELES COUNTY GENERAL PLAN 2035 IMPLEMENTATION PROGRAM**

Program No.	Program Description	General Plan Goals and Policies	Lead and Partner Agencies	Time Frame
AQ-1	PACE Financing Program Pursuant to AB 811, establish a countywide property assessed clean energy (PACE) financing program to provide municipal financing for energy and water efficiency and renewable energy projects on private property.	Air Quality Element: Policies AQ 3.2, AQ 3.3 Public Services and Facilities Element: Policy 6.5 Economic Development Element: Policy ED 1.2	Lead: ISD	Years 1-2
AQ-2	Climate Change Adaptation Program <ul style="list-style-type: none"> Develop strategies to address the impacts of climate change related but not limited to agriculture, public health, ecosystems and natural resources, energy, infrastructure, and emergency management. Climate change adaptation strategies may be conducted sequentially, starting with the evaluation of threats, vulnerability and risk assessments, identification of mitigation actions, and implementation. Investigate short and long term funding mechanisms. Amend the General Plan accordingly to incorporate proposed climate change adaptation actions. 	Air Quality Element: Policy AQ 3.8	Lead: CEO	Years 1-2
AQ-1	Climate Action Plan Implementation <ul style="list-style-type: none"> Implement the actions identified in the <u>Los Angeles County Climate Action Plan</u> to reduce greenhouse gas emissions. 	Air Quality Element: <u>Goal AQ 2, AQ 3</u>	Lead: Chief Executive Office, Department of Public Health, Department of Parks and Recreation, Department of Regional Planning, Fire, Internal Services Department, Public Works	Ongoing

NOTES:

- The PACE Financing Program (existing program number AQ-1) is being deleted because the County of Los Angeles's contracts with Renovate America and Renew Financial expired on April 3, 2020. The County stopped approving new assessment contracts through PACE Funding Group on May 13, 2020. The County continues to work with its PACE administrators to manage existing assessment contracts and provide appropriate consumer protection.
- The Climate Change Adaptation Program (existing program number AQ-2) is being deleted because the Safety Element Update developed adaptation strategies to address climate change impacts and because the OurCounty Sustainability Plan strategically addressed this directive.

2.2.2 Relationship to the OurCounty Sustainability Plan

OurCounty: Los Angeles Countywide Sustainability Plan (OurCounty Sustainability Plan) is a regional sustainability plan for Los Angeles County (Los Angeles County Chief Sustainability Office 2019). It includes a cross-cutting set of goals, strategies, actions, and targets for creating a resilient, inclusive, and sustainable County. The OurCounty Sustainability Plan does not supersede the General Plan, which addresses land use policy in the unincorporated areas. Instead, it

is a forward-looking strategic plan toward a common sustainability vision for the 88 cities and unincorporated areas of Los Angeles County. It adds to LA County's strategic framework for creating a more equitable and resilient community in the face of climate change.

The Draft 2045 CAP shares the OurCounty Sustainability Plan's vision for the region (see Section 3.12, *Land Use and Planning*, for details). However, the Draft 2045 CAP differs in that it is part of the General Plan's Air Quality Element and focuses specifically on reducing GHG emissions from municipal and community activities projected for the unincorporated areas of Los Angeles County.

2.2.3 Relationship to Statewide Emissions Targets

In 2005, Governor Arnold Schwarzenegger's Executive Order (EO) S-3-05 established the 2050 statewide GHG emissions reduction target of 80 percent below 1990 levels, expressing the intent of the State of California to address the issue of climate change through reducing GHG emissions. In 2015, Governor Edmund G. Brown Jr.'s EO B-30-15 established the 2030 statewide GHG reduction target of 40 percent below 1990 levels.

Following EO S-3-05, in 2006, the California Legislature enacted Assembly Bill (AB) 32 (Health and Safety Code Section 38500 et seq.). AB 32 required the California Air Resources Board (CARB) to design and implement feasible and cost-effective emissions limits, regulations, and other measures, such that statewide GHG emissions would be reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). CARB identified a GHG emissions reduction target of 15 percent from 2010 levels by 2020 for local governments (municipal and community-wide) and noted that successful implementation of the plan would rely on local governments' land use planning and urban growth decisions, as local governments have primary authority for planning, zoning, approving, and permitting land development to accommodate population growth and the changing needs of their jurisdictions.

In 2016, Senate Bill (SB) 32 and its companion bill, AB 197, amended the Health and Safety Code by establishing a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and included provisions to ensure that the benefits of state climate policies would accrue to disadvantaged communities. Further, in 2018, Governor Brown signed EO B-55-18, committing California to total, economy-wide carbon neutrality by 2045.³

In December 2017, CARB approved the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan), which outlines the proposed framework of action for achieving the 2030 target of a 40 percent reduction in GHG emissions relative to 1990 levels as codified by SB 32 (CARB 2017). The primary focus areas identified in the 2017 Scoping Plan are associated with energy, transportation, agriculture, water, waste management, natural and working lands, short-lived climate pollutants, green buildings, and cap-and-trade. The State of California has not yet identified pathways for GHG emission reductions beyond the year 2030, but is currently working

³ *Carbon neutrality* means "net zero" emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and through mechanical sequestration.

on the 2022 Scoping Plan Update, which will assess progress toward achieving the SB 32 2030 target and lay out a path to achieve carbon neutrality by 2045.

Table 2-3, *Sources of Statewide Emissions Targets*, summarizes legislation regarding statewide emissions targets. These targets inform the project purpose and objectives described below.

TABLE 2-3
SOURCES OF STATEWIDE EMISSIONS TARGETS

Legislation/Regulation	Year	Summary
EO S-3-05	2005	Established the State of California's first GHG emissions reduction targets: reduction to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.
AB 32, Global Warming Solutions Act	2006	Codified EO S-3-05 and authorized CARB to implement a comprehensive, multi-year program to reduce GHG emissions from all sources throughout the state.
AB 32 Scoping Plan	2008	Described the long-term road map for achieving the AB 32 target of reducing emissions to 1990 levels by 2020.
SB 535, Greenhouse Gas Reduction Fund and Disadvantaged Communities	2012	Required that 25 percent of all funds allocated pursuant to an investment plan for the use of state monies collected through a Cap-and-Trade program be allocated to projects that benefit disadvantaged communities and that at least 10 percent of these be spent on projects located in disadvantaged communities.
EO B-30-15	2015	Established a GHG emissions reduction target of 40 percent below 1990 levels by 2030.
SB 32, California Global Warming Solutions Act of 2006 and its companion bill, AB 197: emissions limit	2016	Codified EO B-30-15.
2017 Scoping Plan Update	2017	Described the long-term road map for achieving the SB 32 target of reducing emissions by 40 percent below 1990 levels by 2030.
AB 398, California's Cap-and-Trade Program	2017	Extended the state's Cap-and-Trade Program through 2030, a key strategy for reducing GHG emissions in California. The Cap-and-Trade Program sets total allowable emissions for facilities and creates carbon offset credits through carbon sequestration projects.
EO B-55-18	2018	Established a target of carbon neutrality (net zero GHG emissions) by 2045.

NOTES:

AB = Assembly Bill; CARB = California Air Resources Board; EO = Executive Order; GHG = greenhouse gas; SB = Senate Bill

SOURCE: Draft 2045 CAP, Table 1-2.

2.3 Project Purpose and Objectives

2.3.1 Project Purpose

While several state-level initiatives will help reduce GHG emissions, they alone will not be sufficient to meet the 2030 target mandated by SB 32. In response to the State of California's efforts and to ensure that the County contributes its fair share to statewide GHG reductions, LA County is preparing the Draft 2045 CAP. The Draft 2045 CAP identifies measures to effectively meet GHG emissions reduction targets for 2030 and 2035 that are consistent with the state's targets and executive orders described above. The Draft 2045 CAP also includes an

aspirational GHG emissions reduction goal of carbon neutrality by 2045. The Draft 2045 CAP furthers the vision and goals of the OurCounty Sustainability Plan and implements the GHG emissions reduction strategies of the General Plan’s Air Quality Element. Specifically, the Draft 2045 CAP, once finalized and approved, would replace the existing implementation strategy of the Air Quality Element, known as the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (referred to in this environmental impact report [EIR] as the “2020 CCAP”). The 2045 CAP would serve as the overarching implementation plan through the 2035 target year and is expected to be updated every five years to reflect new advances and technologies in GHG emissions reduction strategies.

2.3.2 Project Objectives

The objectives of the Draft 2045 CAP are as follows:

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

2.3.3 Qualified Greenhouse Gas Emissions Reduction Plan

CEQA Guidelines Section 15183.5(b) stipulates that project-specific environmental documents can find that project-level GHG emissions would not be cumulatively considerable if the project complies with the requirements of a qualified GHG emissions reduction plan. The project-specific environmental document must identify those requirements in the GHG emissions reduction plan that applies to the project, and if they are not otherwise enforceable, must incorporate those requirements as project-specific mitigation measures. To meet the requirements of CEQA Guidelines Section 15183.5(b), a qualified GHG emissions reduction plan must do the following:

1. Quantify existing and projected GHG emissions resulting from activities within a defined geographic area.
2. Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.
3. Identify and analyze sector-specific GHG emissions within the plan’s geographic area.

4. Specify measures or a group of measures, including performance standards, that if implemented at the project-by-project basis, would collectively achieve the specified emissions level.
5. Establish a mechanism to monitor the plan's progress toward achieving the GHG emissions level and to require amendment if the plan is not achieving specified levels.
6. Be adopted in a public process following environmental review.

Table 2-4, Consistency of the Draft 2045 Climate Action Plan with CEQA Guidelines Section 15183.5(b)(1) for Years 2030 and 2035, summarizes the consistency of the Draft 2045 CAP with these requirements. As shown in Table 2-4, upon certification of this EIR and approval of the plan, the 2045 CAP would meet the requirements of a qualified GHG emissions reduction plan per CEQA Guidelines Section 15183.5(b)(1).

**TABLE 2-4
CONSISTENCY OF THE DRAFT 2045 CLIMATE ACTION PLAN
WITH CEQA GUIDELINES SECTION 15183.5(B)(1) FOR YEARS 2030 AND 2035**

CEQA Guidelines Section 15183.5(b)(1) Requirement	2045 Draft CAP Consistency
(A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.	Consistent. The Draft 2045 CAP includes a 2015 baseline GHG emissions inventory, a 2018 GHG emissions inventory update, and projections of 2030, 2035, and 2045 emissions. GHG emissions for all of these years include emissions associated with all activities occurring within the boundaries of the unincorporated areas of Los Angeles County. The inventories and forecasts were prepared pursuant to the <i>Global Protocol for Community-scale GHG Emission Inventories</i> (World Resources Institute et al. 2021a, 2021b). This information is contained in Chapter 2, Appendix A, and Appendix B of the Draft 2045 CAP.
(B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable.	Consistent. The Draft 2045 CAP identifies a GHG emissions reductions target for the year 2030 that is equivalent to 40% below baseline 2015 levels. This is equivalent to 48% below 1990 levels within unincorporated areas of Los Angeles County. Compared to the statewide target of 40% below 1990 levels by 2030 pursuant to SB 32, the Draft 2045 CAP's 2030 target is more stringent than the statewide target. Consistency with the 2017 Scoping Plan and SB 32 is an appropriate metric by which to determine the significance of the Draft 2045 CAP's GHG emissions. As stipulated by CEQA Guidelines Section 15064.4(b)(3), a lead agency "may consider a project's consistency with the state's long-term climate goals or strategies" when determining the significance of a project's cumulative GHG emissions impacts. Therefore, the Draft 2045 CAP's 2030 target represents the level below which GHG emissions would not be cumulatively considerable in the year 2030. The Draft 2045 CAP also includes a 2035 GHG emissions reduction target of 40% below baseline 2015 levels, which is equivalent to 57% below 1990 levels. This 2035 target puts the County on a path to achieve its long-term aspirational goal of carbon neutrality by 2045, consistent with the state's 2045 target as stipulated in EO B-55-18. Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2035 target represents the level below which GHG emissions would not be cumulatively considerable in the year 2035.
(C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area.	Consistent. The Draft 2045 CAP identifies 10 strategies, 26 measures, and additional implementing actions to reduce GHG emissions within unincorporated areas of Los Angeles County to achieve both the 2030 and 2035 targets. These strategies and measures also put the County on a path toward its 2045 aspirational goal of carbon neutrality. They address emissions in the sectors of stationary energy, transportation, water, waste, industrial process and product use, and agriculture and forestry. This information is contained in Chapter 3 and Appendix E of the Draft 2045 CAP.

TABLE 2-4 (CONTINUED)
CONSISTENCY OF THE DRAFT 2045 CLIMATE ACTION PLAN
WITH CEQA GUIDELINES SECTION 15183.5(B)(1) FOR YEARS 2030 AND 2035

CEQA Guidelines Section 15183.5(b)(1) Requirement	2045 Draft CAP Consistency
(D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.	Consistent. The Draft 2045 CAP quantifies the GHG emissions reduction potential of strategies, measures, and additional implementing actions to reduce GHG emissions within unincorporated areas of Los Angeles County to achieve the 2030 and 2035 targets. Based on this quantitative analysis, the Draft 2045 CAP is anticipated to result in 1.5 million MTCO _{2e} of GHG emission reductions by 2030, which is equivalent to a 46% reduction in 2015 baseline emissions levels and a 54% reduction in 1990 emissions levels for the County, exceeding the 2030 target of a 40% reduction in 2015 levels. As such, implementation of the Draft 2045 CAP would result in lower emissions than an equivalent state target (40% emissions reduction in 1990 levels by 2030). The Draft 2045 CAP also is anticipated to result in 1.9 million MTCO _{2e} of GHG emissions reductions by 2035, which is equivalent to a 59% reduction in 2015 baseline emissions levels and a 64% reduction in 1990 emissions levels for the County, exceeding the 2035 target of a 50% reduction in 2015 levels. The Draft 2045 CAP therefore demonstrates substantial progress by 2030 and 2035 toward achieving LA County’s long-term aspirational goal of carbon neutrality by 2045. The Draft 2045 CAP also identifies how, if these measures were implemented on a project-by-project basis, the measures collectively would achieve the 2030 and 2035 targets.
(E) Establish a mechanism to monitor the plan’s progress toward achieving the level and to require amendment if the plan is not achieving specified levels.	Consistent. The Draft 2045 CAP includes an Implementation Plan, which contains performance indicators and targets for all GHG reduction measures. The Implementation Plan also includes details regarding funding and financing strategies and a list of available and expected funding sources, along with a table for monitoring and reporting progress on the measures and their implementing actions. The Draft 2045 CAP also includes a process to update the CAP every five years to incorporate new measures and technologies that would further LA County’s efforts toward meeting its long-term aspirational goal of carbon neutrality by 2045. This information is contained in Chapter 4 and Appendix E of the Draft 2045 CAP.
(F) Be adopted in a public process following environmental review.	Consistent. LA County has prepared this EIR for the Draft 2045 CAP and is circulating both for public review and comment. The County would consider the environmental review record prior to deciding whether to certify the EIR or approve the Draft 2045 CAP at a noticed public meeting.

NOTES:

2017 Scoping Plan = 2017 Climate Change Scoping Plan Update; CEQA = California Environmental Quality Act; County = unincorporated areas of Los Angeles County; Draft 2045 CAP = 2045 Los Angeles County Climate Action Plan; EIR = environmental impact report; EO = Executive Order; GHG = greenhouse gas; LA County = County of Los Angeles government; MTCO_{2e} = metric tons of carbon dioxide equivalent; SB = Senate Bill

SOURCES: Draft 2045 CAP, including Appendices A, B, E, and F; World Resources Institute et al. 2021a, 2021b

The Draft 2045 CAP is consistent with the requirements for a qualified GHG emissions reduction plan pursuant to CEQA as identified in Table 2-4 for the years 2030 and 2035. If the Final EIR is certified and the Draft 2045 CAP is adopted, then the 2045 CAP may be used to streamline the GHG analysis for future projects facilitated by Draft 2045 CAP measures and actions pursuant to CEQA Guidelines Section 15183.5(b)(1). CEQA review of projects that are consistent with the GHG reduction strategies and targets in the 2045 CAP may take advantage of CEQA streamlining on a project-by-project basis.

2.4 Contents of the 2045 Climate Action Plan

The Draft 2045 CAP contains an executive summary and four chapters, as well as Appendices A through G, which provide additional detail on topics covered in the Draft 2045 CAP. Published under separate cover, the Draft 2045 CAP is available for public review and comment concurrently with the Draft EIR. A brief summary of each component of the Draft 2045 CAP is presented below.

- **Executive Summary:** The executive summary includes a synopsis of the Draft 2045 CAP, including its goals, GHG inventories, and business-as-usual (BAU) forecasts⁴; new 2030 and 2035 targets, and its long-term aspirational goal for 2045; and an overview of the Draft 2045 CAP’s strategies for achieving the targets.
- **Chapter 1—Introduction:** This chapter provides a summary of the latest climate change science and regulations, and discusses policies implemented since the 2020 CCAP was adopted. Chapter 1 also includes a section on social equity, and summarizes prior LA County planning efforts related to climate change, including the OurCounty Sustainability Plan and the recently completed Los Angeles County Climate Vulnerability Assessment.
- **Chapter 2—GHG Emissions Inventory, Forecasts, and Reduction Targets:** This chapter presents the results of the 2010, 2015, and 2018 GHG inventories and the emissions forecasts for 2030, 2035, and 2045. It also presents a 1990 GHG emissions backcast⁵ as it relates to the Draft 2045 CAP’s emission reduction targets for 2030 and 2035. The chapter includes a discussion of each emissions sector and its major sources of GHG emissions, and describes how existing state and LA County standards and regulations are expected to affect emissions forecasts. Lastly, the chapter establishes the Draft 2045 CAP’s GHG emissions targets for 2030 and 2035, and its aspirational goal for 2045.
- **Chapter 3—GHG Emissions Reduction Strategies, Measures, and Actions:** This chapter describes the strategies, measures, and actions LA County would implement to achieve its reduction targets, covering topics such as energy, transportation, solid waste, and natural resources. A timeline for implementation is provided, along with estimated GHG emissions reductions for each future target year. Details of quantification methods and assumptions are provided in a technical appendix. The Draft 2045 CAP includes 10 overarching strategies and 25 measures, each of which has one or more implementing actions. The general definitions of “strategy,” “measure,” and “action” are as follows:
 - *Strategy:* An overall, sector-level goal of the Draft 2045 CAP. Strategies are broad, aiming for overarching goals within each emissions sector. For example, “Decarbonize the Energy Supply” is a strategy (i.e., Strategy 1).
 - *Measure:* A focused, sub-sector-specific program and goal that include performance standards designed to be quantified for GHG emissions reductions. Measures support strategies and are to be achieved through individual implementing actions. For example, “Procure Zero-Carbon Electricity” is a measure (i.e., Measure ES2, supporting Strategy 1).

⁴ The “business-as-usual” or BAU forecast assumes that no action is taken to reduce GHG emissions in Los Angeles County. 2018 emissions are projected forward using growth indicators such as population, housing, and employment.

⁵ A *backcast* is an estimation method that, similar to a forecast, projects activities and emissions from a current year into the past based on proxy data and known trends including population, housing, and employment.

The quantitative GHG emissions reduction analysis is provided primarily at the measure level.

- *Action*: A specific policy, program, or tool that would be implemented for each measure. Actions are intended to be implemented in a coordinated manner to make meaningful progress toward the associated measure and strategy. For example, “Complete enrollment of the community in the Clean Power Alliance’s (CPA’s) 100% Green Power option or Southern California Edison’s (SCE’s) Green Rate option” is an action (i.e., Action ES2.2 associated with Measure ES2 and Strategy 1).
- **Chapter 4—Implementation and Monitoring**: This chapter includes the Draft 2045 CAP’s implementation and monitoring program, outlining for each GHG emissions reduction measure the specific actions to be taken, the needs for operational and capital resources, policy and regulatory changes, and the department and/or other entities responsible for implementation. The implementation plan includes performance indicators for each measure (and select actions) that would be used to track progress toward achieving each future target, which would be monitored on an annual basis. This chapter also summarizes CEQA provisions and any development project review requirements for CEQA streamlining.
- **Appendix A—Greenhouse Gas Accounting Methods, Business as Usual Forecast, and Emission Reduction Targets**: This appendix includes revised inventories for 2015 and 2018; backcasting methods to 2010 and 1990; assumptions for the BAU forecast; and a derivation of the 2045 CAP’s aspirational goal for GHG emissions reduction.
- **Appendix B—Emissions Forecasting and Reduction Methods**: This appendix includes assumptions for the Adjusted BAU forecast⁶ and assumptions and quantification methods for emissions reduction strategies and measures.
- **Appendix C—Prior and Current County Actions on Climate Change**: This appendix includes a description of LA County’s past and current activities on climate change.
- **Appendix D—Planning Area Profiles**: This appendix provides an overview of each of the 11 planning areas as outlined in the General Plan and provides information about them from a climate action perspective, identifying “Key Climate Actions” for each area.
- **Appendix E—Implementation Details**: This appendix provides implementation details on each of the measures and actions presented in Chapter 3 of the 2045 CAP.
- **Appendix F—2045 Climate Action Plan Consistency Review Checklist**: This appendix includes the consistency review checklist for new development.
- **Appendix G—Funding Sources**: This appendix includes a list of potential funding sources for implementing the 2045 CAP.

⁶ The Adjusted BAU forecast accounts for future growth under BAU conditions but makes adjustments for federal, state, and County legislative regulations that were implemented before the development of the Draft 2045 CAP.

2.5 Draft 2045 Climate Action Greenhouse Gas Inventory, Future Emissions, Targets, and Greenhouse Gas Reduction Potential

2.5.1 Baseline 2015 and Updated 2018 Greenhouse Gas Inventories

As shown in **Table 2-5, 2010, 2015, and 2018 Greenhouse Gas Inventories for the Unincorporated County**, GHG emissions in unincorporated areas of Los Angeles County in 2010 totaled 6.0 million metric tons of carbon dioxide equivalent (MTCO₂e),⁷ which equates to 5.7 MTCO₂e per County resident and 4.6 MTCO₂e per service population (SP) (i.e., residents plus employees). In 2015, the baseline year for the Draft 2045 CAP selected for consistency with the OurCounty Sustainability Plan and the General Plan, the unincorporated County's GHG emissions totaled 5.5 million MTCO₂e, which equates to 5.2 MTCO₂e per County resident and 4.2 MTCO₂e per SP. In 2018, emissions were 5.2 million MTCO₂e, representing a 6 percent decline from 2015 baseline levels; this is equivalent to 4.8 MTCO₂e per County resident and 3.8 MTCO₂e per SP.

**TABLE 2-5
2010, 2015, AND 2018 GREENHOUSE GAS INVENTORIES FOR THE UNINCORPORATED COUNTY**

Emissions Sector	GHG Emissions (MTCO ₂ e)		
	2010	2015	2018
Stationary Energy	2,146,743	1,908,637	1,698,809
Transportation	3,015,442	2,811,779	2,708,758
Waste	564,503	469,997	469,382
IPPU	243,456	253,529	239,505
AFOLU	60,860	60,860	60,860
<i>Total GHG Emissions</i>	6,031,003	5,531,155	5,173,240
Population	1,057,194	1,058,871	1,082,365
Employment	244,745	255,287	261,612
Service Population (Population + Employment)	1,301,939	1,314,158	1,343,977
GHG Emissions per Capita	5.7	5.2	4.8
GHG Emissions per Service Population	4.6	4.2	3.8

NOTES:

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

SOURCE: Draft 2045 CAP Appendix A.

Emissions in the inventories were included for five major sectors: stationary energy; transportation; waste; industrial processes and product use; and agriculture, forestry and other land use. These emissions are associated with a variety of sources, including direct combustion of fossil fuels, purchased electricity, transportation (gasoline and diesel), solid waste landfilling, potable water use,

⁷ To account for the global warming potential of different GHGs, emissions are often quantified and reported as carbon dioxide equivalents (CO₂e). For example, methane is a much more potent GHG than carbon dioxide (CO₂) with 28 times the global warming potential as CO₂; one ton of methane is equivalent to 28 tons of CO₂e.

wastewater treatment, and materials. These sources are described in greater detail in Appendix A of the Draft 2045 CAP. The largest sector of emissions in 2015 was transportation at 51.3 percent, followed by stationary energy at 34.5 percent; waste contributed 8.5 percent, followed by industrial processes and product use at 4.6 percent, and finally agriculture, forestry and other land use at 1.1 percent. Table 2-5 presents emissions for 2010, 2015, and 2018 for the unincorporated area.

2.5.2 Emissions Forecasts

The Draft 2045 CAP includes forecasts of GHG emissions for the future target years of 2030, 2035, and 2045. Two forecast scenarios were prepared: a “business-as-usual” or BAU forecast, and an “Adjusted” BAU forecast. The BAU forecast represents how emissions could change in the future if no federal, state, regional, or local action is taken. For the Draft 2045 CAP, the BAU scenario accounts for implementation of the Southern California Association of Governments (SCAG) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), the most current available RTP/SCS with a complete data set at the time of forecasting, which affects vehicle trips and vehicle miles traveled (SCAG 2016). The Adjusted BAU forecast accounts for the influence of adopted federal, state, and regional regulations, policies, and actions on GHG emissions within the unincorporated areas. These actions include the California Energy Commission’s 2019 and 2023 Title 24 building energy efficiency requirements, the Renewable Portfolio Standards (SB 350), the California Department of Resources Recycling and Recovery (CalRecycle) 75 percent waste diversion initiative (AB 341), the Pavley and Advanced Clean Car Standards (AB 1493), and the Low Carbon Fuel Standards (EO S-01-07). **Table 2-6, Business-as-Usual and Adjusted Business-as-Usual Greenhouse Gas Emissions Forecasts for Unincorporated Los Angeles County**, presents GHG emissions forecasts for 2030, 2035, and 2045.

**TABLE 2-6
BUSINESS-AS-USUAL AND ADJUSTED BUSINESS-AS-USUAL GREENHOUSE GAS EMISSIONS FORECASTS
FOR UNINCORPORATED LOS ANGELES COUNTY**

Emissions Sector	BAU Forecast (MTCO _{2e})			Adjusted BAU Forecast (MTCO _{2e})		
	2030	2035	2045	2030	2035	2045
Transportation	2,784,518	2,815,094	2,876,247	2,205,885	2,080,234	1,993,281
Stationary Energy	1,681,160	1,721,212	1,820,612	1,502,306	1,341,401	1,018,793
Waste	451,919	454,097	482,489	451,919	454,097	482,489
IPPU	259,605	267,981	284,731	259,605	267,981	284,731
AFOLU	60,860	60,860	60,860	60,860	60,860	60,860
<i>Total GHG Emissions</i>	<i>5,238,062</i>	<i>5,319,243</i>	<i>5,524,939</i>	<i>4,480,574</i>	<i>4,204,572</i>	<i>3,840,154</i>

NOTES:

AFOLU = agriculture, forestry, and other land use; BAU = business-as-usual; GHG = greenhouse gas; IPPU = industrial processes and product use; MTCO_{2e} = metric tons of carbon dioxide equivalent

SOURCE: Draft 2045 CAP Appendices A and B.

2.5.3 Greenhouse Gas Emissions Reduction Targets and Goals

LA County evaluated a series of options for GHG emissions reduction targets during development of the OurCounty Sustainability Plan. The targets selected represent LA County's commitment to doing its fair share and meeting its requirements to help California achieve its ambitious statewide GHG targets. See **Table 2-7**, *State of California Greenhouse Gas Targets*.

TABLE 2-7
STATE OF CALIFORNIA GREENHOUSE GAS TARGETS

Target Year	GHG Emissions Target	Corresponding Legislation
2020	1990 levels	Assembly Bill 32, the California Global Warming Solutions Act (2006)
2030	40% below 1990 levels	Senate Bill 32, the Global Warming Solutions Act (2006)
2045	Carbon neutrality ^a	Executive Order B-55-18 (2018)
2050	80% below 1990 levels	Executive Order S-3-05 (2005)

NOTES:

GHG = greenhouse gas

a. *Carbon neutrality* means "net zero" emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and through mechanical sequestration.

The Draft 2045 CAP's 2030 target was selected based on guidance provided in the 2017 Scoping Plan and was developed to demonstrate consistency with the statewide 2030 target shown in Table 2-7. The Draft 2045 CAP's 2030 target is based on a reduction from 2015 baseline levels and is equal to 40 percent below 2015 emissions (3.3 million MTCO_{2e}). This compares to the County's 2030 BAU forecast of 5.2 million MTCO_{2e}. A 40 percent reduction below 2015 levels is also equivalent to a 48 percent reduction below the County's 1990 GHG emissions levels, which is more stringent than the state target of a 40 percent reduction below 1990 levels by 2030.

The Draft 2045 CAP's 2035 target was selected based on guidance provided in the 2017 Scoping Plan and was chosen as a milestone target to put the County on the trend to achieve a long-term aspirational goal of carbon neutrality by 2035. This target was developed to demonstrate consistency with the pathway needed to achieve the statewide 2045 target shown in Table 2-7.

The Draft 2045 CAP's 2035 target is based on a reduction from 2015 baseline levels and is equal to 50 percent below 2015 emissions (2.8 million MTCO_{2e}). This compares to the County's 2035 BAU forecast of 5.3 million MTCO_{2e}. A 50 percent reduction below 2015 levels is also equivalent to a 57 percent reduction below the County's 1990 GHG emissions levels.

Table 2-8, *Greenhouse Gas Emissions Targets and Goals for the Draft 2045 Climate Action Plan and the OurCounty Sustainability Plan*, compares the Draft 2045 CAP's targets for 2030 and 2035, along with its aspirational 2045 goal, and the OurCounty Sustainability Plan targets for each future year considered.

**TABLE 2-8
GREENHOUSE GAS EMISSIONS TARGETS AND GOALS FOR THE DRAFT 2045 CLIMATE ACTION PLAN
AND THE OURCOUNTY SUSTAINABILITY PLAN**

Year	2045 CAP (Unincorporated County only)	OurCounty Sustainability Plan (Unincorporated County and Cities)	GHG Emissions (MTCO _{2e}) (Unincorporated County)
2025	N/A	25% below 2015 levels	4,148,366
2030	40% below 2015 levels	N/A	3,318,693
2035	50% below 2015 levels	50% below 2015 levels	2,765,578
2045	Carbon neutrality ^a	Carbon neutrality by 2045 for County operations (by 2050 Countywide)	0

NOTES:

2045 CAP = 2045 Los Angeles County Climate Action Plan; GHG = greenhouse gas; MTCO_{2e} = metric tons of carbon dioxide equivalent; N/A = not applicable; OurCounty Sustainability Plan = OurCounty: Los Angeles Countywide Sustainability Plan

a. The Draft 2045 CAP includes an aspirational goal, rather than a target, of carbon neutrality by 2045.

SOURCE: Draft 2045 CAP, including Appendices A and B.

The Draft 2045 CAP’s 2030 target of 40 percent below 2015 levels aligns with the statewide 2030 target as codified in SB 32 and the 2017 Scoping Plan. This is because LA County’s 2030 target of 40 percent below 2015 levels is equivalent to a 48 percent reduction below 1990 levels, which exceeds the State of California’s target of 40 percent below 1990 levels. The County’s emissions in 2015 are estimated to have been 12 percent lower than 1990 emissions; this compares to statewide emissions, which were 2.3 percent higher in 2015 than in 1990 (CARB 2014, 2021). Consequently, the Draft 2045 CAP is more stringent than the state target both when comparing to 1990 levels and when comparing to per-capita emissions levels.⁸ The Draft 2045 CAP’s 2030 target also sets the County on a trend to achieve California’s 2045 and 2050 GHG emissions reduction targets.

Consistency with the 2017 Scoping Plan and SB 32 is an appropriate metric by which to determine the significance of the Draft 2045 CAP’s GHG emissions. CEQA Guidelines Section 15064.4(b)(3) states that a lead agency “may consider a project’s consistency with the state’s long-term climate goals or strategies” when determining the significance of a project’s impacts.” Additionally, in *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal.4th 204, the California Supreme Court sanctioned the use of such a threshold by stating that assessing a project’s GHG impacts based on a “consistency with a GHG emission reduction plan” threshold of significance is legally permissible under CEQA. The Draft 2045 CAP’s 2030 target is derived using the 2017 Scoping Plan’s recommendations for local land use development to contribute their “fair share” of emissions reductions to the statewide GHG target for 2030. This is also consistent with the Association of Environmental Professionals (AEP) 2016 white paper recommendation for “Substantial Progress” thresholds for land use development to show consistency with statewide targets (AEP 2016).

⁸ The 2017 Scoping Plan Update recommends local government goals of 6 MTCO_{2e} per capita by 2030 and 2 MTCO_{2e} per capita by 2050. The 2045 CAP’s targets are equivalent to 2.8 MTCO_{2e} per capita by 2030, 2.3 MTCO_{2e} per capita by 2030, and 0 MTCO_{2e} per capita by 2045.

The Draft 2045 CAP's 2035 target of 50 percent below 2015 levels puts the County on a path to achieve the statewide 2045 target as stipulated in EO B-55-18. This is because the County's 2035 target of 50 percent below 2015 levels is equivalent to a 57 percent reduction below 1990 levels, which exceeds the state's target of 40 percent below 1990 levels. Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2035 target represents the level below which GHG emissions would not be cumulatively considerable in the year 2035.

The Draft 2045 CAP's 2045 aspirational goal of carbon neutrality aligns with the statewide 2045 target of carbon neutrality stipulated in EO B-55-18 and the 2050 target of 80 percent below 1990 levels stipulated in EO S-3-05.

GHG emissions and global climate change represent cumulative impacts of human activities and development projects locally, regionally, statewide, nationally, and worldwide. GHG emissions from all these sources cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects around the world have contributed and will continue to contribute to global climate change and its associated environmental impacts. Given that analysis of GHG emissions is cumulative in context, the 2030 and 2035 emissions targets discussed above represent the level by which the Draft 2045 CAP's emissions would not be cumulatively considerable.

2.5.4 Climate Action Plan Greenhouse Gas Emissions Reduction Potential

With implementation of the Draft 2045 CAP, LA County aims to reduce emissions to 40 percent below the 2015 baseline by 2030 to approximately 3.3 million MTCO_{2e}; to reduce emissions to 50 percent below the 2015 baseline by 2035 to approximately 2.8 million MTCO_{2e}; and to be on a path toward carbon neutrality (zero net emissions) by 2045. With implementation of the Draft 2045 CAP, it is anticipated that Los Angeles County would exceed its reduction target by approximately 370,000 MTCO_{2e} in 2030 and 495,000 MTCO_{2e} in 2035.

The Draft 2045 CAP is not sufficient to reduce Los Angeles County's emissions to zero by 2045, with residual emissions being 1.3 million MTCO_{2e} in 2045. However, the EIR focuses on the 2045 CAP's ability to achieve the 2030 and 2035 targets, and not a 2045 carbon-neutral goal consistent with EO B-55-18 or a 2050 goal consistent with EO S-3-05. **Table 2-9**, *Estimated Greenhouse Gas Reduction Potential of Draft 2045 Climate Action Plan Strategies*, summarizes the County's baseline 2015 GHG inventory, emissions projections, and target achievement anticipated through implementation of the Draft 2045 CAP.

**TABLE 2-9
ESTIMATED GREENHOUSE GAS REDUCTION POTENTIAL OF DRAFT 2045 CLIMATE ACTION PLAN STRATEGIES**

Emissions Category	GHG Emissions and Reductions (MTCO ₂ e)		
	2030	2035	2045
2015 Baseline Emissions	5,531,155	5,531,155	5,531,155
Total Projected Emissions (BAU)	5,238,062	5,319,243	5,524,939
Total Projected Emissions (Adjusted BAU)	4,480,574	4,204,572	3,840,154
Estimated GHG Reductions from the Draft 2045 CAP	1,530,400	1,933,083	2,587,342
GHG Emissions with Implementation of the Draft 2045 CAP	2,950,175	2,271,490	1,252,812
County Target/Goal Emissions Levels	3,318,693	2,765,578	0
<i>Additional Reduction Below Target</i>	<i>368,519</i>	<i>494,088</i>	<i>-1,252,812</i>

NOTES:

2045 CAP = 2045 Los Angeles County Climate Action Plan; BAU = business-as-usual; MTCO₂e = metric tons of carbon dioxide equivalent.

SOURCE: Draft 2045 CAP; Draft 2045 CAP Appendix B.

2.6 Greenhouse Gas Reduction Strategies, Measures, and Actions

The Draft 2045 CAP relies on continued implementation of federal and state mandates, regional actions, and local actions for achieving the 2030 and 2035 targets. The Adjusted BAU forecast accounts for implementation of the federal and state mandates, and regional actions, discussed below.

2.6.1 State and Regional Actions

State and regional actions include regional land use and transportation planning efforts undertaken by SCAG, pursuant to the Sustainable Communities and Climate Protection Act of 2008 (SB 375), through its 2016 RTP/SCS, as well as renewable energy legislation at the state level through the Renewables Portfolio Standard and California Solar Programs. Although the 2020 RTP/SCS (Connect SoCal) has been adopted, SCAG had not publicly released its 2020 RTP/SCS transportation model by the time modeling for the Draft 2045 CAP was conducted; therefore, it was not possible to model the County's transportation emissions and emission reductions using the 2020 RTP/SCS transportation model. Additional state actions include vehicle fuel efficiency and lowering the carbon content of vehicle fuels. The following state and regional actions were considered in the Adjusted BAU emissions forecast:

- SCAG 2016 RTP/SCS, which affects vehicle trips and vehicle miles traveled.
- California Energy Commission's 2019 and 2023 Title 24 building energy efficiency standards.
- Renewables Portfolio Standard (SB 350).
- CalRecycle 75 percent waste diversion initiative (AB 341).
- Pavley and Advanced Clean Car Standards (AB 1493).
- Low Carbon Fuel Standards (EO S-01-07).

2.6.1.1 Senate Bill 375 and Transit Priority Areas

An important regional action upon which the Draft 2045 CAP relies is the implementation of SB 375, which establishes mechanisms for the development of regional targets for reducing GHG emissions from passenger vehicles. SB 375 was adopted by the state on September 30, 2008. In compliance with SB 375, SCAG adopted the 2016 RTP/SCS in April 2016.

The 2016 RTP/SCS serves as the region’s comprehensive long-range transportation planning document by encouraging public policy decisions that will result in balanced investments for a wide range of multimodal transportation improvements. The RTP/SCS is intended to achieve the goals of SB 375, and can be implemented through existing and planned programs or policies. The RTP/SCS consists of strategies to guide new policies and infrastructure development based on recent household and job growth forecasts, market demand and economic studies, and transportation studies. The RTP/SCS addresses both Transit Priority Areas (TPAs) and High Quality Transit Corridors (also called *High Quality Transit Areas*, or HQTAs) to align regional transportation, land use, housing, and GHG emissions planning through the SCS, which illustrates how SCAG would meet a GHG emissions reduction target for passenger vehicles established by CARB. As defined in SB 743,⁹ a *TPA* is an area within 0.5 mile of high-quality transit (such as a rail stop or a bus corridor) that provides or will provide at least 15-minute frequency service during peak hours by the year 2035, and an *HQT corridor* means a corridor with fixed-route bus service with service intervals no longer than 15 minutes during peak commute hours.

Consistent with the General Plan, future growth would be centered around transportation corridors and villages. Additional information is provided in the Housing Element, which addresses HQTAs and TPAs as a part of the Transit Oriented Districts (TODs), where LA County encourages infill development, with pedestrian-friendly and community-serving uses near transit stops. The goal in these areas is to encourage walking, bicycling, and transit use. The General Plan adds new TODs and expands existing TODs from an approximately 0.25-mile radius to a 0.5-mile radius from transit stations (County Planning 2009).

2.6.2 LA County Measures and Implementing Actions

The Draft 2045 CAP is organized around 10 primary strategies that would be implemented by 25 measures and additional implementing actions that include new ordinances, policies, resolutions, programs, incentives, and outreach and education activities, which together would achieve the estimated reduction in GHG emissions presented above.

Each measure identifies a performance goal, tracking metrics, an implementation lead and partners, general timeline (short, medium, long), LA County costs (high-level, i.e., planning-level), and one or more implementing actions. At the strategy level, information is provided

⁹ To further the state’s commitment to the goals of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the California Global Warming Solutions Act of 2006 (AB 32), and the California Complete Streets Act of 2008 (AB 1358), SB 743 added Chapter 2.7, *Modernization of Transportation Analysis for Transit-Oriented Infill Projects*, to CEQA (Public Resources Code Section 21099). Key provisions of SB 743 reformed the CEQA methodology for analyzing the impacts of urban infill projects to aesthetics and parking and eliminated the measurement of auto delay, including level of service, as a metric for use in measuring traffic impacts in “transit priority areas.”

regarding the co-benefits of implementing each strategy and the Draft 2045 CAP's alignment with relevant state and LA County initiatives, including the OurCounty Sustainability Plan.

The strategies and measures in the Draft 2045 CAP are described in more detail below. Additional detail for the measures, including implementing actions and tracking metrics, is provided in the Draft 2045 CAP itself. Also, implementing actions that could cause environmental impacts are listed in Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary.

2.6.2.1 Strategy 1: Decarbonize the Energy Supply

LA County's goal to shift to a renewable energy-based electricity supply ensures equitable access to affordable, local, and reliable energy sources. A comprehensive community energy map would identify the geographic opportunities to deploy these distributed energy resources in an equitable manner. Common examples of distributed energy resources include rooftop solar photovoltaic (PV) units, battery storage, electric vehicles (EVs), and EV chargers. Prioritizing wildfire-prone communities would provide an alternative to the costly infrastructure upgrades that would be required to maintain uninterrupted power service. Enabling community-shared solar would allow access to local renewable energy for renters and other potential customers. The recently formed Clean Power Alliance (CPA) enables Los Angeles County to transition to a low-carbon energy future at an accelerated pace: "Starting in October 2022, customers in unincorporated areas of L.A. County will be getting 100% renewable energy—wind, solar, geothermal—from CPA, compared to the 50 percent clean energy they receive now... low-income customers on a subsidized rate will not have any rate increase" (CPA 2021; Los Angeles County Chief Sustainability Office 2021). The CPA is a community-choice aggregation program that offers CPA participants the option to increase their share of renewable energy. LA County realistically can procure electricity that is generated by 100 percent renewable sources from the CPA with a realistic expectation of resiliency.

Measure ES1: Develop a Sunset Strategy for All Oil and Gas Operations.

The performance objectives for Measure ES1 are to reduce oil and gas operations 40 percent below 2015 levels by 2030, 60 percent by 2035, and 80 percent by 2045.

Measure ES2: Procure Zero-Carbon Electricity.

The performance objectives for Measure ES2 are to achieve 100 percent participation in the CPA's Green Power option or Southern California Edison's (SCE's) Green Rate option by 2025 for municipal accounts, and for community accounts to achieve 96 percent participation in the CPA's Green Power option or SCE's Green Rate option by 2030 (approximately 4 percent opt-out rate).

Measure ES3: Increase Renewable Energy Production.

The performance objectives for Measure ES3 are to (1) install rooftop solar PV on 5 percent of existing residential buildings (multifamily and single-family) and existing commercial buildings by 2030, 10 percent by 2035, and 20 percent by 2045; (2) install rooftop solar PV on 80 percent of new multi-family residential buildings by 2030, 85 percent by 2035, and 95 percent by 2045; (3) install rooftop solar PV installations on 40 percent of new commercial buildings by 2030, 50 percent by 2035, and 70 percent by 2045; and (4) install 20,000 kilowatts of solar PV at LA County facilities by 2030.

Measure ES4: Increase Energy Resilience.

The performance objective for Measure E4 is to achieve community electricity storage capacity equal to the community-wide 24-hour average usage by 2035/2045.

Measure ES5: Establish GHG Requirements for New Development.

The performance objective for Measure ES5 is to ensure that new development is consistent with the Draft 2045 CAP's goals and GHG emissions reduction targets. All new development not requiring General Plan amendments shall be consistent with the Draft 2045 CAP.

2.6.2.2 Strategy 2: Increase Densities and Diversity of Land Uses near Transit

Strategy 2 focuses on coordinating land use development that leads to outcomes associated with reduced vehicle miles traveled, such as increased densities near transit, jobs-housing balance, and strategically located land uses that can reduce travel distances for many trip purposes.

Measure T1: Increase Density near High-Quality Transit Areas.

The performance objectives for Measure T1 are to: (1) achieve a minimum of 20 dwelling units per acre (maximum of 50 dwelling units per acre) for HQTAs; (2) locate a majority of residential and employment centers in the unincorporated Los Angeles County within 1 mile of an HQTA; and (3) achieve a 27 percent increase in dwelling units within HQTAs. These densities would be achieved through implementation of the Housing Element Update rezoning programs.

Measure T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use.

The performance objective for Measure T2 is to achieve a job density of 300 jobs per acre for all new projects with nonresidential development by 2030. This density would be achieved through implementation of the Housing Element Update rezoning programs.

2.6.2.3 Strategy 3: Reduce Single-Occupancy Vehicle Trips

Strategy 3 focuses on development of transportation networks that increase the accessibility, comfort, and convenience of active travel modes to help reduce trips made in single-occupancy vehicles.

Measure T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips.

The performance objective for Measure T3 is to increase bikeway miles by 500 percent by 2030.

Measure T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation.

The performance objectives for Measure T4 are by 2030 to: (1) double transit service hours from 560,000 to 1.12 million; (2) install bus-only lanes and signal prioritization on

100 percent of all transit routes; and (3) have a minimum of 75 percent of unincorporated County residents live within one-half mile of a bus or active transportation option.¹⁰

Measure T5: Limit and Remove Parking Minimums.

The performance objectives for Measure T5 are to: (1) reduce parking stipulations to reduce parking supply and encourage transit use; (2) unbundle parking costs to reflect the cost of parking; and (3) implement parking pricing to encourage “park-once” behavior.¹¹

2.6.2.4 Strategy 4: Institutionalize Low-Carbon Transportation

Motorized vehicles needed for travel must transition to zero-carbon and near-zero-carbon technologies, such as EVs and zero-emission vehicles (ZEVs).¹² Expanding access to charging infrastructure would address a key barrier to the adoption of EVs. LA County will work to provide access to clean motorized transportation by developing programs that include e-bikes, zero-emission buses and shuttles, and electrified trains. LA County also would endeavor to install EV charging stations (EVCSs) at LA County properties and in the public right-of-way, require new development to install EVCSs, and develop incentives and requirements for existing buildings to install EVCSs.

Strategy 4 also aims to reduce emissions from diesel- and gasoline-powered off-road equipment, including construction, landscaping, recreational, and commercial and industrial equipment. This strategy encourages the use of electric-powered equipment by establishing a goal for a portion of all equipment to be electric-powered. Other technologies include hydrogen fuel cell and natural gas.

Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales.

The performance objectives for Measure T6 are to: (1) increase the total amount of light-duty vehicles in the County that are ZEVs to 30 percent by 2030, 50 percent by 2035, and 85 percent by 2045; and (2) to increase the sales of new light-duty vehicles in the County that are ZEVs to 60 percent by 2030 and 100 percent by 2035.

Measure T7: Electrify LA County Fleet Vehicles.

The performance objective for Measure T7 is to: (1) electrify LA County bus, shuttle, and inmate transfer fleets by 2030; and (2) to increase the total amount of light-duty vehicles in the LA County–owned fleet that are ZEVs to 35 percent by 2030, 60 percent by 2035, and 100 percent by 2045.

¹⁰ *Active transportation* refers to human-powered transportation and low-speed electronic-assist devices, such as bicycles, tricycles, wheelchairs, electric wheelchairs, scooters, skates, and skateboards.

¹¹ The goal of “park-once” behavior is for visitors to find a parking structure and then walk to their various destinations (e.g., work, lunch, entertainment, shopping), rather than using the vehicle as the mode by which these various trips are accomplished.

¹² A *ZEV* is a vehicle that produces zero exhaust emissions of any criteria pollutant (or precursor pollutant) or GHG under any possible operational modes or conditions. Examples of current-technology ZEV fuels include electricity, hydrogen, and compressed air.

Measure T8: Accelerate Freight Decarbonization.

The performance objectives for Measure T8 are to: (1) increase the total amount of medium-duty and heavy-duty vehicles in the County that are ZEVs to 40 percent by 2030, 60 percent by 2035, and 85 percent by 2045; (2) to increase the total amount of medium-duty and heavy-duty trucks in the LA County–owned fleet that are ZEVs to 60 percent by 2030, 80 percent by 2035, and 100 percent by 2045; and (3) to ensure that 100 percent of the drayage truck fleet is ZEV by 2035.

Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment.

The performance objective for Measure T9 is to increase the total amount of off-road fleet and equipment in the County that are ZEVs to 20 percent by 2030, 50 percent by 2035, and 90 percent by 2045.

2.6.2.5 Strategy 5: Decarbonize Buildings

Building decarbonization requires two complementary components: procuring clean, renewable sources of energy and shifting building energy loads for heating and cooking to electricity or renewable fuels rather than fossil fuels. Distributed, on-site renewable energy can be promoted in a variety of ways. Because grid-supplied energy is now cleaner than on-site natural gas use, building electrification and, to some extent, the use of biomethane on-site in buildings are key to decarbonization.

Measure E1: Transition Existing Buildings to All-Electric.

The performance objectives for Measure E1 are to: (1) electrify 25 percent of all existing residential buildings by 2030, 40 percent by 2035, and 70 percent by 2045; (2) electrify 15 percent of all existing nonresidential buildings by 2030, 25 percent by 2035, and 40 percent by 2045; (3) require zero net energy (ZNE)¹³ for 50 percent of all major renovations by 2030, 75 percent by 2035, and 100 percent by 2045; and (4) electrify LA County facilities to the maximum extent feasible.

Measure E2: Standardize All-Electric New Development.

The performance objectives for Measure E2 are for all new buildings to be all-electric beginning in 2025, for all new residential buildings to be ZNE beginning in 2025, and for all new nonresidential buildings to be ZNE beginning in by 2030.

Measure E3: Implement Other Decarbonization Actions.

The performance objectives of Measure E3 are to: (1) increase the proportion of biomethane in the utility natural gas mix to 20 percent by 2030, 30 percent by 2035, and 80 percent by 2045; (2) use negative-carbon concrete for all new construction; and (3) replace high-global-warming-potential refrigerants with low-global-warming-potential refrigerants 15 percent by 2030, 25 percent by 2035, and 50 percent by 2045.

¹³ *Zero net energy* is defined by the U.S. Department of Energy as follows: “An energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the on-site renewable exported energy” (U.S. Department of Energy 2015).

2.6.2.6 Strategy 6: Improve Efficiency of Existing Building Energy Use

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

Measure E4: Improve Energy Efficiency of Existing Buildings.

The performance objective of Measure E4 is to reduce building Energy Use Intensity below 2015 levels by 15 percent for residential and industrial and 25 percent for commercial by 2030, 25 percent for residential and industrial and 35 percent for commercial by 2035, and 35 percent for residential and industrial and 50 percent for commercial by 2045.

2.6.2.7 Strategy 7: Conserve Water

The GHG emissions associated with water consumption are the result of the electricity and natural gas used to pump, treat, and convey water. Strategy 7 aims to reduce GHG emissions by decreasing the total amount of water consumed, as well as the energy intensity of the water consumed.

Measure E5: Increase Use of Recycled Water and Gray Water Systems.

The performance objectives of Measure E5 are that County demand is met by recycled water, gray water, or potable reuse¹⁴ 25 percent by 2025, 50 percent by 2030, and 100 percent by 2045.

Measure E6: Reduce Indoor and Outdoor Water Consumption.

The performance objectives of Measure E6 are to reduce total water use to less than 110 gallons per capita per day (GPCD) by 2030, 100 GPCD by 2035, and 85 GPCD by 2045.

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

LA County would reduce GHG emissions from waste in a manner that prioritizes overall environmental benefit. This would start with expanded efforts to reduce and reuse waste at the source. Incentives and educational programs would be used to increase awareness and bolster participation in recycling programs. Organic waste, which is responsible for the vast majority of GHG emissions in the waste sector, would be addressed through source reduction, donation of

¹⁴ The California Water Boards define *direct potable reuse* as “the planned introduction of recycled water either directly into a public drinking water system, or into a raw water supply immediately upstream of a drinking water treatment plant” (California Water Boards 2022).

edible food, and composting. Organic waste would also be addressed through waste conversion technologies such as anaerobic digestion and biomass conversion, which produce biogas that can be used to produce heat and electricity, pipeline gas, vehicle fuel, and other beneficial products like compost and fertilizer. At wastewater treatment plants, biogas would be captured and converted into electricity, heat, pipeline gas, or vehicle fuel.

Measure W1: Institutionalize Sustainable Waste Systems and Practices.

The performance objectives of Measure W1 are to: (1) decrease overall per capita waste disposal in landfills 25 percent by 2030, 30 percent by 2035, and 35 percent by 2045; and (2) to increase the total County waste diversion rate to 80 percent by 2025, 85 percent by 2030, 90 percent by 2035, and 95 percent by 2045.

Measure W2: Increase Organic Waste Diversion.

The performance objectives of Measure W2 are to maximize organic waste disposal reduction compared to 2014 levels 75 percent by 2025, 80 percent by 2030, 85 percent by 2035, and 90 percent by 2045.

2.6.2.9 Strategy 9: Conserve Forests and Working Lands

Forests, chaparral shrublands, and wetlands serve as carbon sinks that can sequester carbon dioxide resulting from human activity. When these natural and working lands are converted to residential and other urbanized uses, that stored carbon dioxide is released into the atmosphere. Conserving and restoring these lands keeps carbon in the ground and provides a multitude of benefits, from maintaining biodiversity in the Significant Ecological Areas (SEAs)¹⁵ to preserving the character of the County’s rural areas.

Measure A1: Conserve Agricultural and Working Lands, Forest Lands, and Wildlands.

The performance objectives of Measure A1 are to: (1) reduce the amount of natural land converted for urbanized uses 25 percent by 2030, 50 percent by 2035, and 75 percent by 2045; and (2) to conserve natural lands that would otherwise be converted for urbanized uses 53 acres annually by 2030, 106 acres annually by 2035, and 159 acres annually by 2045.

2.6.2.10 Strategy 10: Sequester Carbon and Implement Sustainable Agriculture

Agricultural practices can either strip the environment of its rich resources or work to maintain and utilize the resources in ways that benefit farms and the environment. Farming practices that increase biodiversity, enrich soils, improve watersheds, and enhance ecosystem services are known as *regenerative agriculture practices*. These practices can have positive impacts for the

¹⁵ County Municipal Code Section 22.14.190–S defines an *SEA* as “land that is identified to hold important biological resources representing the wide-ranging biodiversity of the County, based on the criteria for SEA designation established by the General Plan and as mapped in the adopted SEA Policy Map.” To protect such areas, the County’s SEA Ordinance “establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County’s natural biodiversity with private property rights” (County Planning 2022).

climate, reducing GHG emissions and supporting practices that are environmentally friendly. Additionally, adding tree canopy cover and green spaces back into developed areas can help sequester carbon and reduce the urban heat island effect.

Measure A2: Support Regenerative Agriculture.

The performance objectives of Measure A2 are to reduce the quantity of synthetic fertilizers used/applied and increase in the number of acres of cover crops using regenerative agriculture techniques.

Measure A3: Expand Unincorporated Los Angeles County’s Tree Canopy and Green Spaces.

The performance objectives of Measure A3 are to: (1) plant 5,000 new trees by 2030, 10,000 trees by 2035, and 20,000 trees by 2045; and (2) to increase tree canopy cover 10 percent by 2030, 15 percent by 2035, and 20 percent by 2045.

2.6.3 Greenhouse Gas Reduction Potential of the Draft 2045 Climate Action Plan Measures

Table 2-10, *Estimated Greenhouse Gas Reduction Potential of Draft 2045 Climate Action Plan Measures*, shows the GHG emissions reduction potential of 19 of the Draft 2045 CAP’s measures. Emissions reductions were calculated for these measures given the quantitative nature of their performance goals and the availability of underlying activity and emissions data to facilitate emissions modeling. The remaining Draft 2045 CAP measures were not quantified given their more qualitative and supportive nature, or because of data or modeling limitations. In general, implementing actions are not quantified individually, but rather are accounted for collectively in the GHG emissions reduction estimates for the measures.

**TABLE 2-10
ESTIMATED GREENHOUSE GAS EMISSIONS REDUCTION POTENTIAL
OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES**

Sector and Measure	2030 MTCO ₂ e ^a		2035 MTCO ₂ e ^a		2045 MTCO ₂ e ^a	
	Number	Percent ^b	Number	Percent ^b	Number	Percent ^b
Stationary Energy						
ES1 Develop a Sunset Strategy for All Oil and Gas Operations	28,368	2%	40,178	2%	52,148	2%
ES2 Procure Zero-Carbon Electricity	477,188	31%	317,915	16%	0	0%
ES3 Increase Renewable Energy Production	2,118	0.1%	2,614	0.1%	0	0%
E1 Transition Existing Buildings to All-Electric	176,728	12%	280,988	15%	475,603	18%
E2 Standardize All-Electric New Development	7,402	0.5%	12,529	0.6%	22,614	0.9%
E4 Improve Energy Efficiency of Existing Buildings	19,608	1.3%	41,388	2.1%	72,196	2.8%
E6 Reduce Indoor and Outdoor Water consumption	10,660	0.7%	15,235	0.8%	15,046	1%

TABLE 2-10 (CONTINUED)
ESTIMATED GREENHOUSE GAS EMISSIONS REDUCTION POTENTIAL
OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES

Sector and Measure		2030 MTCO ₂ e ^a		2035 MTCO ₂ e ^a		2045 MTCO ₂ e ^a	
		Number	Percent ^b	Number	Percent ^b	Number	Percent ^b
Transportation							
T1	Increase Density near High-Quality Transit Areas	27,357	1.8%	26,019	1.3%	25,276	1.0%
T2	Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use	39,184	2.6%	37,267	1.9%	36,204	1.4%
T3	Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips	2,955	0.2%	2,811	0.1%	2,730	0.1%
T4	Encourage Transit, Active Transportation, and Alternative Modes of Transportation	11,465	0.7%	10,904	0.6%	10,593	0.4%
T6	Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales	481,735	31%	820,125	42%	1,441,291	56%
T7	Electrify LA County Fleet Vehicles	29,743	2%	24,335	1.3%	12,351	0.5%
T8	Accelerate Freight Decarbonization	86,168	6%	103,528	5%	164,707	6%
T9	Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment	8,373	0.5%	21,819	1.1%	42,597	1.6%
Waste							
W1	Institutionalize Sustainable Waste Systems and Practices	54,367	4%	94,152	5%	113,165	4%
W2	Increase Organic Waste Diversion	54,487	4%	56,290	3%	59,802	2%
Agriculture, Forestry and Other Land Use							
A1	Conserve Agricultural and Working Lands, Forest Lands, and Wildlands	8,953	1%	17,906	1%	26,858	1%
A3	Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces	3,540	0.2%	7,080	0.4%	14,160	0.5%
Total Local Reductions^c		1,530,400	100%	1,933,083	100%	2,587,342	100%

NOTES:

- a. MTCO₂e = metric tons of carbon dioxide equivalent; ZEV = zero-emission vehicle
b. "Percent" = Percent of Total Reduction
c. Numbers may not add to 100% due to rounding.

SOURCE: Draft 2045 CAP, Chapter 3

As shown in the table, in 2030, nearly half (47 percent) of the anticipated reductions would be attributed to energy-related measures, including zero-carbon electricity, the sunset strategy for oil and gas operations, electrification of the existing building stock, local renewable energy generation, all-electric new development, and energy efficiency. Approximately 45 percent of the anticipated reductions in 2030 are attributed to transportation-related measures, including the expansion of the ZEV market share, increased density and jobs/housing balance, mass transit service and alternative modes of transportation, LA County fleet vehicle electrification, freight decarbonization, and zero-emission off-road technologies. Another significant local action in 2030 includes implementation of sustainable waste systems. In 2030, agriculture, forestry and other land use programs make up a relatively small portion of the total local reductions, at 1 percent.

2.7 2045 Climate Action Plan Implementation

Implementation of the Draft 2045 CAP would occur over three phases, which take advantage of easier short-term actions to meet the 2030 target and then build up to more complex solutions as the 2035 target and 2045 aspirational goal approach.

- **Phase 1: Short-Term Actions (2023–2025)**—Short-term actions that are high-priority with large emissions reductions that would lay the foundation for longer term actions.
- **Phase 2: Mid-Term Actions (2025–2035)**—Actions needed to achieve the 2030 or 2035 GHG emissions reduction targets that may need additional time, funding, or new technology to implement.
- **Phase 3: Longer Term Actions (2035–2045)**—Actions focused on helping the County reach its 2045 GHG emissions reduction aspirational goal that may need substantial time, funding, or new technology to implement.

2.7.1 2045 Climate Action Plan Consistency Checklist

As discussed in Section 2.3.3, *Qualified Greenhouse Gas Emissions Reduction Plan*, projects in the County can demonstrate consistency with the Draft 2045 CAP (as a qualified GHG emissions reduction plan) if they are consistent with the 2045 CAP’s future growth projections and with its GHG emissions reduction measures. As discussed above, any project that is consistent with a qualified GHG emissions reduction plan, and that conforms to specific performance standards applicable to new development identified in the plan, would not require additional GHG emissions analysis or mitigation under CEQA Guidelines Section 15183.5(b)(2).

A project’s incremental contribution to a cumulative impact may not be cumulatively considerable if the project would comply with the requirements in a previously approved plan or mitigation program (including plans or regulations for the reduction of GHG emissions) that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area in which the project is proposed (CEQA Guidelines Sections 15064[h][3] and 15064.4[b]). Once final, the Draft 2045 CAP would represent LA County’s approved emissions reduction program for all new development within the unincorporated areas.

LA County has developed the 2045 CAP Checklist to assist with determining the consistency of projects with the Draft 2045 CAP. This is included as Appendix F to the Draft 2045 CAP. The 2045 CAP Checklist provides individual projects the opportunity to demonstrate that they are reducing GHG emissions; it also ensures that future projects would achieve their proportion of emissions reductions consistent with the assumptions of the Draft 2045 CAP. A project would demonstrate consistency with the Draft 2045 CAP by incorporating the GHG emissions reduction measures included in the Draft 2045 CAP that apply to new projects. The 2045 CAP Checklist for projects facilitated by the Draft 2045 CAP provides a mechanism for projects to specifically identify “those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project” per CEQA Guidelines Section 15183.5(b)(2).

Because it is a qualified climate action plan pursuant to CEQA Guidelines Section 15183.5, the Draft 2045 CAP would be used as the basis for future assessments of consistency with this plan in lieu of a project-specific GHG CEQA analysis for future projects, by using the 2045 CAP Checklist. Future discretionary projects—both projects proposed by private developers and public projects—would be reviewed to determine whether they meet certain screening criteria included in the 2045 CAP Checklist:

- If a project would be consistent with the General Plan and Housing Element *and* could demonstrate consistency with the Draft 2045 CAP by completing the 2045 CAP Checklist, then the project would be considered consistent with the Draft 2045 CAP and would be eligible for CEQA streamlining of its project-level GHG analysis.
- Also, if a project would achieve net-zero GHG emissions compared to existing on-site development at the project site, provided that existing on-site development is similar to the proposed project and that GHG emissions from existing on-site development are not substantially larger than emissions from the proposed project, the project would be considered consistent with the 2045 CAP and would be eligible for CEQA streamlining of its project-level GHG analysis.
- If the project would be inconsistent with the Housing Element and require a General Plan amendment, then it would not be able to use this the 2045 CAP for CEQA streamlining. Such a project would have to undergo its own project-level analysis of GHG impacts pursuant to CEQA.
- If a project could not demonstrate consistency with the Draft 2045 CAP by completing the 2045 CAP Checklist or by implementing equivalent replacement strategies as provided for in the 2045 CAP Checklist, then a project-specific GHG analysis would be required.

Consistency with General Plan Land Use Assumptions. Projects consistent with the demographic forecasts and land use assumptions used in the Draft 2045 CAP can use the 2045 CAP Checklist to demonstrate consistency with the 2045 CAP. If consistent, these projects could rely on the programmatic environmental review contained in the certified EIR for the 2045 CAP.

If a project would not be consistent with the General Plan’s land use designations, then it would not be eligible for streamlining by using the 2045 CAP Checklist. Projects inconsistent with the General Plan’s land use designations would prepare a project-specific analysis of GHG emissions. Such an analysis would quantify existing and projected GHG emissions for the project and incorporate applicable items from the 2045 CAP Checklist to the maximum extent feasible, along with any identified project-specific mitigation measures.

2.8 2045 Climate Action Plan Monitoring and Reporting

To ensure that the Draft 2045 CAP remains qualified for use with later activities under CEQA Guidelines Section 15183.5(b)(2) and that the 2045 CAP Checklist remains valid, the Project includes the following monitoring and reporting responsibilities, which would be administered by LA County:

- LA County would conduct an inventory of the unincorporated County’s GHG emissions at minimum every five years and would include a timeline with milestones toward meeting targets.
- LA County would collect data to report through an annual report identifying the progress of measures and actions.
- LA County would annually evaluate LA County policies, plans, and codes as needed to ensure that the 2045 CAP reduction targets are met.
- LA County staff would evaluate the 2045 CAP and the 2045 CAP Checklist every five years (at minimum) to determine whether updates are necessary.

2.9 Required Approvals: Environmental Review and Consultation Requirements

CEQA Guidelines Section 15124(d) requires that an EIR to contain a statement briefly describing the intended uses of the EIR. LA County has approval authority over the Draft 2045 CAP. Approval from other public agencies is not required. LA County would certify the Final EIR, approve the General Plan amendment, and adopt the Draft 2045 CAP. No other agency approvals would be required, as these are policy matters for LA County.

Some projects facilitated by Draft 2045 CAP measures and actions would be implemented by LA County while others would be implemented by other agencies, such as transit agencies for expanded transit service; however, such projects would require project-level CEQA evaluation, at which time implementing agencies would be involved as a lead or responsible agencies.

CEQA Guidelines Section 15124(d) requires that an EIR integrate CEQA review with related federal, state, or local environmental review and consultation requirements. Aside from SB 18 tribal consultation (see Chapter 1, *Introduction*), at the plan level no other directly related environmental review and consultation requirements are applicable to the Draft 2045 CAP. Implementation of projects facilitated by Draft 2045 CAP measures and actions would require compliance with applicable project-specific federal, state, or local environmental review and consultation requirements.

CHAPTER 3

Environmental Setting, Impacts, and Mitigation Measures

3.1 Introduction to Environmental Analysis

This chapter describes the environmental setting from a regional and local perspective and the regulatory setting for the analysis of impacts. See Section 3.1.1, *Regional Environmental Setting*, and each of the resource sections that follow for setting information. This chapter also analyzes the environmental impacts of the Draft 2045 CAP and projects facilitated by the Draft 2045 CAP as they relate to the following areas of environmental consideration: aesthetics, agriculture and forestry, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas (GHG) emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, transportation, tribal cultural resources, utilities and service systems, and wildfire.

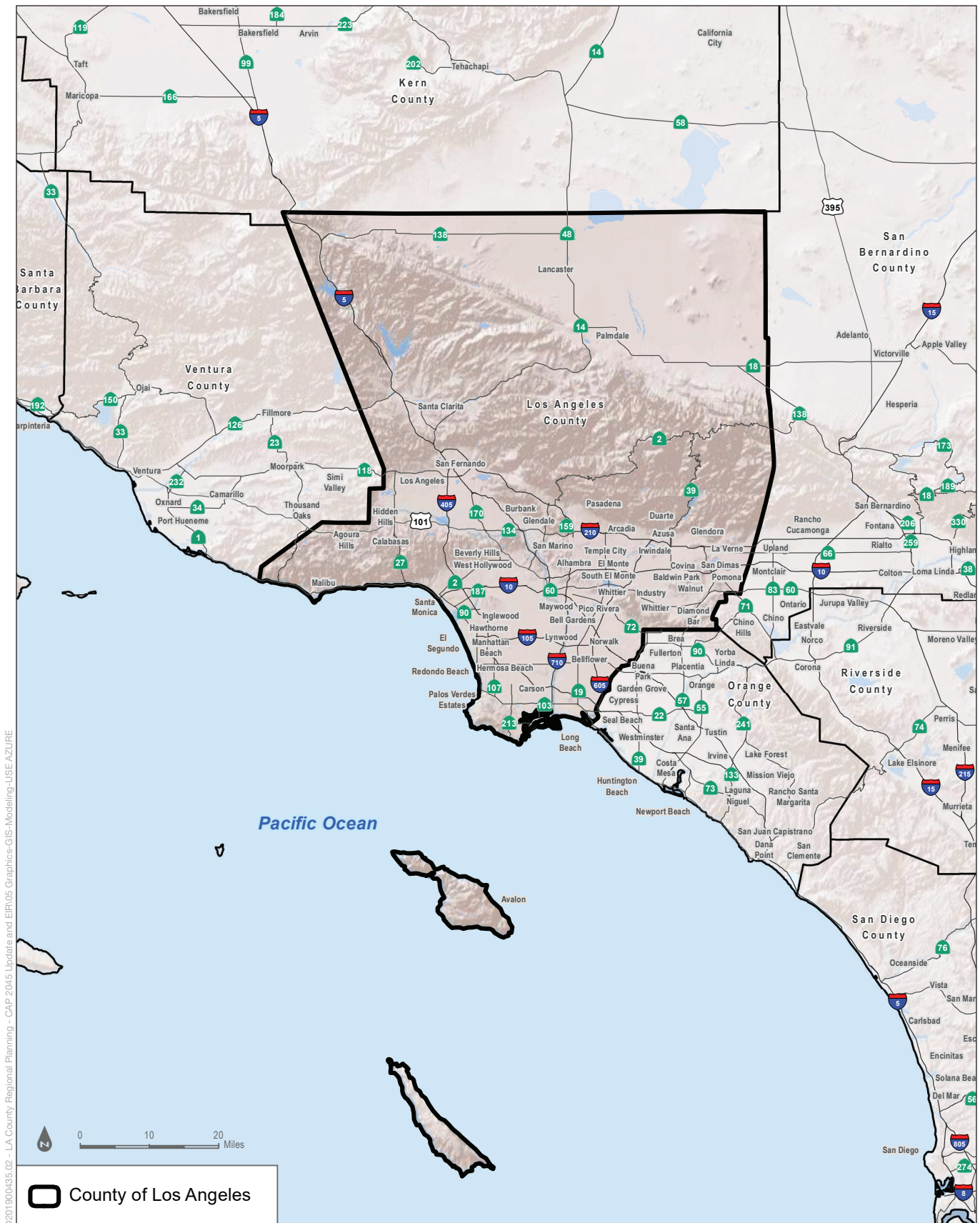
3.1.1 Regional Environmental Setting

CEQA Guidelines Section 15125 requires an EIR to include “a description of the physical environmental conditions in the vicinity of the project.... from both a local and regional perspective.” The regional environmental setting is described here; the local environmental setting is described on a resource-by-resource basis elsewhere in this Chapter 3.

With approximately 4,083 square miles, including a 75-mile stretch of the Pacific Coast, Los Angeles County is geographically one of the largest counties in the United States. The County is bordered to the south by Orange County, to the east by San Bernardino County, to the north by Kern County, and to the west by Ventura County, and includes two offshore islands: Santa Catalina Island and San Clemente Island. Los Angeles County includes 88 cities and approximately 2,656 square miles of unincorporated area. The unincorporated areas are home to one million people. See Figure 3.1-1, *Regional Vicinity Map*.

3.1.1.1 Aesthetics

Los Angeles County is a visually diverse area where the visual setting includes built environments, natural environments, and places that interface between the two. Built environments include commercial, office, residential, industrial, institutional, and public uses. Natural environments include coastlines, beaches, foothills, mountains and ridgelines, forests, and desert environments. Scenic hillsides include the San Gabriel Mountains, Verdugo Hills, Santa Monica Mountains,



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SOURCE: Los Angeles County, 2021

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.1-1
Regional Vicinity Map



Santa Susana Mountains, Simi Hills, and Puente Hills. Scenic viewsheds vary by location and community and can include ridgelines, unique rock outcroppings, waterfalls, ocean views, or various other unusual or scenic landforms. Numerous ridgelines provide dramatic views for the unincorporated areas.

The varied topography of the County allows for an assortment of long-range views from the Los Angeles Basin to the foothills and mountains, as well as long-range views from the foothills and mountains to the Los Angeles Basin and the coast. There are three adopted state scenic highways within the County: Angeles Crest Highway (State Route [SR] 2), from 2.7 miles north of Interstate 210 to the San Bernardino County line; Mulholland Highway (two sections), from SR 1 to Kanan Dume Road, and from west of Cornell Road to east of Las Virgenes Road; and Malibu Canyon–Las Virgenes Highway, from SR 1 to Lost Hills Road. Overall, the visual character of Los Angeles County is quite varied (Los Angeles County 2021). See Section 3.2.1, *Setting*, in Section 3.2 for additional details.

3.1.1.2 Agriculture and Forestry

Farmland Mapping and Monitoring Program maps identify farmland of the following types: Agricultural Land, Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. Mapped Important Farmland exists in the Antelope Valley, Santa Clarita Valley, and Santa Monica Mountains planning areas. LA County also has land use jurisdiction over approximately 40,000 acres of forest land. See Section 3.3.1, *Setting*, in Section 3.3 for additional details.

3.1.1.3 Air Quality

From an air quality perspective, Los Angeles County can be reflected as the two distinct geographical areas of the Los Angeles Basin and Antelope Valley. The Los Angeles Basin is part of the South Coast Air Basin (SCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties; and the Antelope Valley is part of the Mojave Desert Air Basin, which encompasses the northeastern portion of Los Angeles County, the eastern portion of Kern County, and the majority of San Bernardino County. Most of Los Angeles County is in the SCAB, which is managed by the South Coast Air Quality Management District (SCAQMD). The SCAQMD’s jurisdiction is approximately 10,743 square miles and includes Los Angeles County except for the Antelope Valley, which is under the jurisdiction of the Antelope Valley Air Quality Management District (AVAQMD). The SCAQMD and AVAQMD both implement a wide range of programs and regulations that address point- and area-source emissions and mobile-source emissions.

The entire SCAB, including the portion in unincorporated Los Angeles County, is designated as a nonattainment area for both the federal and state standards for ozone, particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (PM_{2.5}), and particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM₁₀) (CARB 2022; USEPA 2022a). The Los Angeles County portion of the SCAB is designated as a nonattainment area for both federal and state ozone standards and is designated as a nonattainment area for state PM₁₀ standards (CARB 2022; USEPA 2022a).

The air people breathe has a direct correlation with health, and Los Angeles County has some of the most polluted air in the country (Los Angeles County Department of Public Health 2022). Children, the elderly, and individuals with respiratory or cardiovascular health issues are most negatively affected by poor air quality (AVAQMD 2022). Exposure to six air pollutants in particular can cause health problems: particulate matter, ground-level ozone, lead, carbon monoxide, nitrogen oxides and sulfur oxides. Exposure can cause respiratory symptoms (e.g., coughing and breathing difficulties, chronic bronchitis, and asthma), cardiovascular diseases, and can trigger a host of harmful effects (e.g., behavioral problems, learning deficits, headaches, fatigue) (Los Angeles County Department of Public Health 2022).

See Section 3.4.1, *Setting*, in Section 3.4 for additional details.

3.1.1.4 Biological Resources

Los Angeles County comprises a diverse variety of ecosystems that include coastal areas, islands, plains, mountains, and deserts. Elevations range from sea level to over 10,000 feet above mean sea level. Climates range from mild near the coast to severe in the high mountains and desert regions. The soils and underlying geology vary according to prehistoric volcanic activity, marine sedimentation, and river deposition. This wide variation in physical environments has produced the diverse collection of habitats, vegetation, and wildlife found in the County today (Los Angeles County 2021).

Sensitive biological resources are habitats or individual species that have special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, and/or rare. This is due to the species' declining or limited population sizes, which usually result from habitat loss. Watch lists of such resources are maintained by the U.S. Fish and Wildlife Service, the California Department of Fish and Wildlife, and special groups, such as the California Native Plant Society. Los Angeles County contains multiple habitats as well as plant and animal species, which have been accorded special recognition. For example, the Biodiversity Atlas of Los Angeles, prepared by the University of California Los Angeles, showcases the striking biodiversity present in the County, which hosts more than 4,000 distinct species of plants and animals, including 52 endangered species—more than any county outside of Hawaii (UCLA 2020). See Section 3.5.1, *Setting*, in Section 3.5 for additional details.

3.1.1.5 Cultural and Tribal Cultural Resources

Evidence of continuous human occupation in Southern California spans the last 10,000 years (Los Angeles County 2021). Cultural resources include prehistoric, historical, archaeological, and paleontological resources. Examples of such resources in Los Angeles County include historic buildings, structures, artifacts, sites, and districts of historic, architectural, archaeological, and paleontological significance. These resources may also be locations of important events in history or unique structures or groups of structures possessing distinctive architectural features that depict a historic period. Historical, cultural, and paleontological sources are considered nonrenewable and irreplaceable. Tribal cultural resources that exist in Los Angeles County are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native

American tribe that is listed, or determined to be eligible for listing, on the national, state, or local register of historical resources. The Native American Heritage Commission has identified 24 tribes with traditional lands or cultural places within the unincorporated areas. For additional details, see Section 1.4.1.1, *Senate Bill 18 Consultation Process*, and Section 1.4.1.2, *Tribal Consultation Pursuant to Assembly Bill 52*, in Chapter 1 and the setting sections for cultural resources (Section 3.6.1 in Section 3.6) and tribal cultural resources (Section 3.16.1 in Section 3.16).

3.1.1.6 Energy

Los Angeles County's population is served by a variety of energy sources, including electricity, natural gas, and petroleum. Southern California Edison and the Clean Power Alliance (CPA) provide electricity to the unincorporated areas. The Southern California Gas Company provides natural gas service to the County. Petroleum usage in the County includes products such as gasoline, distillate fuel, liquefied petroleum gases, and jet fuel (Los Angeles County 2021). See Section 3.7.1, *Setting*, in Section 3.7 for additional details.

3.1.1.7 Geology and Soils

Since 1800, more than 90 significant earthquakes have shaken the Los Angeles region, including the moment magnitude 6.7 1994 Northridge earthquake. Within the County, there are more than 50 active and potentially active fault segments, an undetermined number of buried faults, and at least four blind thrust faults capable of producing damaging earthquakes. The primary issues in the unincorporated areas associated with geology and soils include: seismic hazards and the associated effects and damage caused by earthquakes; and geotechnical, or hillside, hazards. The vast majority of hillside hazards include mud and debris flows, active deep-seated landslides, hillside erosion, and human-induced slope instability (Los Angeles County 2021). See Section 3.8.1, *Setting*, in Section 3.8 for additional details.

3.1.1.8 Greenhouse Gas Emissions

A GHG is any gas that absorbs infrared radiation in the atmosphere. As defined in Health and Safety Code Section 38505(g), for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride (see also California Code of Regulations Title 14, Section 15364.5). Some GHGs, such as CO₂, methane, and nitrous oxide, are emitted into the atmosphere through natural processes and human activities. Of these, CO₂ and methane are emitted in the greatest quantities from human activities. Manufactured GHGs have a much greater heat-absorption potential than CO₂ and include fluorinated gases, such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which are associated with certain industrial products and processes (Los Angeles County 2021). The primary GHG sources in California attributable to human activities include transportation, stationary energy (used by buildings and other facilities), waste, and industrial, agricultural, and other land use. In 2020, GHG emissions nationwide totaled 5,215.6 million metric tons of CO₂ equivalents after accounting for sequestration from the land sector; the 2020 level is 22 percent below 2005 levels (USEPA 2022b). See Section 3.9.1, *Setting*, in Section 3.9 for additional details.

3.1.1.9 Hazards and Hazardous Materials

Hazardous materials refer generally to hazardous substances that exhibit corrosive, poisonous, toxic, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (e.g., household cleaners, industrial solvents, paint, pesticides) and in the manufacturing of products (e.g., electronics, newspapers, plastic products). Hazardous materials can include petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial, and industrial uses; businesses; hospitals; and households. Accidental releases of hazardous materials have a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, industrial incidents, and unintentional releases (Los Angeles County 2021).

Regarding emergency response planning, the County's Office of Emergency Management maintains the *Los Angeles County Operational Area Emergency Response Plan* (Los Angeles County 2012) and the *County of Los Angeles All-Hazard Mitigation Plan* (Los Angeles County Chief Executive Office 2019). The County Office of Emergency Management leads and coordinates disaster plans and disaster preparedness exercises for all cities and 288 special districts in the County. Additionally, hazardous material response in the Project area would be handled by the hazardous materials response firefighters with the Los Angeles County Fire Department. See Section 3.10.1, *Setting*, in Section 3.10 for additional details.

3.1.1.10 Hydrology and Water Quality

Los Angeles County spans parts of three hydrologic regions: the South Coast Region, the South Lahontan Region, and the Tulare Lake Hydrologic Region. Within the County, there are six major watershed areas that include more than 900 miles of major river systems, 3,600 miles of smaller streams, and 25 square miles of pond, lake, and reservoir surface (Los Angeles County 2021; Los Angeles County Department of Public Works 2009).

Also located within Los Angeles County are regional groundwater recharge areas called *spreading grounds*, which capture close to 80 percent of the runoff that flows from the mountains (Los Angeles County 2021; Los Angeles County Department of Public Works 2022a, 2022b). Los Angeles County groundwater basins are grouped under five major geographic areas: the Antelope Valley, Coastal Plain, San Fernando Valley, San Gabriel Valley, and Santa Clarita Valley (Los Angeles County Department of Public Works 2022c). Except during times of drought, groundwater extraction accounts for nearly 33 percent of the water usage in the unincorporated areas (Los Angeles County 2021). In rural areas, hundreds of households depend on private wells (Los Angeles County 2021).

Regarding surface water, the Los Angeles Regional Water Quality Control Board has adopted two water quality control plans (also called *basin plans*) that govern different areas of the County: one for the Santa Clara Basin, the other for the Los Angeles Basin. The basin plans designate beneficial uses for inland and coastal surface waters, establish water quality objectives and implementation programs and policies to protect those uses. The County's Stormwater Ordinance regulates the discharge, deposit, or disposal of stormwater and/or runoff to storm drains in accordance with the National Pollutant Discharge Elimination System program established

pursuant to the federal Clean Water Act. The County Flood Control District oversees activities on more than 2,700 square miles within six major watersheds, including drainage infrastructure within 86 incorporated cities as well as the unincorporated County areas (Los Angeles County Flood Control District 2022). See Section 3.11.1, *Setting*, in Section 3.11 for additional details.

3.1.1.11 Land Use and Planning

The County oversees land use and planning within all of the unincorporated areas, which comprise an approximately 1,696,000-acre (approximately 2,650-square-mile) area that is approximately 65 percent of the total land area of the County. See Figure ES-1, *Map of Unincorporated Los Angeles County*.

The unincorporated areas in the northern portion of Los Angeles County include the Angeles National Forest and parts of the Los Padres National Forest (together encompassing nearly 650,000 acres within the unincorporated areas—more than 25 percent of the County’s total land area), and the western tip of the Mojave Desert known as the Antelope Valley. In the western portion of the County, the unincorporated areas include Marina del Rey and the Santa Monica Mountains. The unincorporated areas in the southern and eastern portions consist of non-contiguous land areas including unincorporated areas in South Los Angeles, East Los Angeles, and the San Gabriel Valley.

There are five unincorporated areas of Los Angeles County in the state-designated coastal zone: Santa Catalina Island, Marina del Rey, a portion of the Santa Monica Mountains, Ballona Wetlands, and San Clemente Island. The General Plan identifies 11 Planning Areas, where uses reflect the distinctive and diverse character of the different areas as well as their environmental and other constraints (County Planning 2015). See Section 3.12.1, *Setting*, in Section 3.12 for additional details.

Other governmental entities besides the County have oversight over land use and planning in the unincorporated areas. For example, although the County retains responsibility for land use regulation for the nearly 40,000 acres of private in-holdings within the national forest lands, the remaining national forest lands in unincorporated areas are under the stewardship of the U.S. Forest Service. Additionally, the Santa Monica Mountains National Recreation Area is a part of the National Park System and is managed by the U.S. Department of the Interior’s National Park Service. The U.S. Department of Defense also oversees areas (military installations) within the County.

3.1.1.12 Noise

The unincorporated areas of the County contain urbanized and rural environments, both of which experience noise disturbance. The major sources of noise in the unincorporated areas come from transportation systems, such as commercial and private airports, rail and bus networks, and the regional freeway and highway system. Urban residential areas are also affected by commercial and industrial spillover noise. Other major sources of noise historically have been associated with industrial uses, such as manufacturing plants. Non-transportation noise sources include industrial processing; mechanical equipment; and pump stations and heating, ventilation, and air

conditioning equipment. Some non-transportation sources are not stationary, but typically are assessed in environmental reviews as “point” or “area” sources due to the limited area in which they operate; examples include truck deliveries, agricultural field machinery, and mining equipment (County Planning 2015).

Noise-sensitive land uses include areas where an excessive amount of noise would interfere with normal activities. Primary noise-sensitive land uses in unincorporated include residential uses, public and private educational facilities, hospitals, convalescent homes, hotels/motels, daycare facilities, and passive recreational parks. Sleep disturbance tend to be a critical concern for noise-sensitive land uses (County Planning 2015). See Section 3.13.1, *Setting*, for additional details.

3.1.1.13 Population and Housing

This regional setting information for population and housing is based on information presented in the County’s Housing Element Update Program EIR, which presented data as of 2018 (Los Angeles County 2021). In 2018, the population in unincorporated Los Angeles County was estimated to be 1,057,162 persons, representing approximately 10.3 percent of the County’s total population. Regarding housing stock, there were 294,730 housing units in the unincorporated areas at that time, representing approximately 8.8 percent of the Countywide total. The majority of homes in unincorporated Los Angeles County are single-family detached units, although there also are mobile homes, apartments of varying scales, and single-family attached units (e.g., townhomes). The high percentage of single-family detached and attached housing units reflects the current suburban nature of several unincorporated areas (Los Angeles County 2021). See Section 3.14.1, *Setting*, in Section 3.14 for additional details.

3.1.1.14 Transportation

Los Angeles County has one of the largest transportation systems in the world, and the County’s growing population, coupled with the diversity of activities that take place Countywide, creates burdens on the transportation system and its infrastructure (County Planning 2015). Among the six counties that are part of the Southern California Association of Governments (SCAG)—Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties—Los Angeles County has the highest daily vehicle miles traveled (VMT) at over 231,455,000 miles, which represents half of all the average daily VMT generated in the six-county SCAG region. In addition, Los Angeles County drivers experience the highest rate of vehicle hour delays out of the six-county SCAG region counties, with 65 percent of travel delay hours in the region occurring in Los Angeles County (SCAG 2020). Unincorporated areas are served by the interstate highway system, state highways, and a network of County and local roads; as well as by bicycle facilities as described in the County’s 2012 Bicycle Master Plan (Los Angeles County Department of Public Works 2012); and public bus and rail transit throughout the five sectors within Metro’s service area (Metro 2022). See Section 3.15.1, *Setting*, for additional details.

3.1.1.15 Utilities and Service Systems

Multiple entities provide wastewater treatment to the unincorporated areas: Los Angeles County Sanitation Districts (LACSD), the City of Los Angeles Bureau of Sanitation (LABS), and Las

Virgenes Municipal Water District. The Consolidated Sewer Maintenance District of Los Angeles County, which is administered by the Department of Public Works, operates and maintains more than 4,600 miles of sanitary sewers serving the unincorporated areas (except for Marina del Rey); the LACSD owns, operates, and maintains about 1,400 miles of sewers; and LABS operates and maintains more than 6,700 miles of sewers. See Section 3.17.1, *Setting*, in Section 3.17 for additional details; see also Section 4.19, *Utilities and Service Systems*, in the County’s Housing Element Update Program EIR (Los Angeles County 2021).

3.1.1.16 Wildfire

A *wildfire*, also called *wildland fire* or *rural fire*, is an uncontrolled fire in an area of combustible vegetation occurring in rural areas. While all of Los Angeles County (indeed, all of California) is subject to some degree of fire hazard, there are specific features that make some areas more hazardous than others—some of those features are found in the unincorporated areas. Overall, the County faces wildland fire threats due to its topography, rainfall patterns, and fire-adapted vegetation. At-risk areas mapped by the California Department of Forestry and Fire Protection (CAL FIRE) as Fire Hazard Severity Zones are further classified as Very High, High, and Moderate in State Responsibility Areas and Very High in Local and Federal Responsibility Areas (County Planning 2022).

Some of the largest and most destructive wildfires in the County have been recent: In September 2020, the Bobcat fire burned 115,796 acres in the Angeles National Forest (from north of Monrovia to Juniper Hills) and destroyed 170 structures, including 87 homes (Los Angeles Almanac 2022). Two 2019 fires in the Angeles National Forest (the Ravenna Fire in Big Tujunga Canyon and the San Gabriel Fire in San Gabriel Canyon), combined to burn an additional 135,000 acres (Los Angeles Almanac 2022).

CAL FIRE describes the 2022 fire season outlook as follows: “California continues to experience longer wildfire seasons as a direct result of Climate Change. Extended dryness originating from January is expected to continue into the Spring with little perception leaving most of the state in moderate to extreme drought conditions prior to Summer. These continued dry conditions with above normal temperatures through Spring will leave fuel moisture levels lower than normal increasing the potential for wildland fire activity” (CAL FIRE 2022). See Section 3.18.1, *Setting*, and Figure 3.18-1, *Fire Hazard Severity Zones and Responsibility Areas*, in Section 3.18 for additional details.

3.1.2 Baseline

The analysis of each environmental resource issue begins with a description of the actual physical environmental conditions in the area where a project and its alternatives would be implemented. These conditions also are referred to as the “baseline” relative to which project-caused changes are analyzed to determine whether the change is significant for purposes of CEQA (CEQA Guidelines Sections 15125 and 15126.2). For this EIR, unless as otherwise noted, baseline conditions are those as they existed on or about January 3, 2022, shortly after the Notice of Preparation was published.

The impacts of the Project (and alternatives analyzed in Chapter 4, *Alternatives*) are defined as changes to the environmental setting that are attributable to Project components or activities. Consistent with CEQA, an EIR need not analyze the impacts of the existing environment on a project (including its users or occupants) unless the project exacerbates those conditions. The regional setting is summarized in Section 3.1.1, *Regional Environmental Setting*. The environmental setting is further described for purposes of establishing baseline environmental conditions on a resource-by-resource basis throughout this Chapter 3.

3.1.3 Approach to Impact Analysis

3.1.3.1 Significance Criteria

CEQA lead agencies rely on impact significance criteria as benchmarks to determine whether changes to the existing environment caused by a project or an alternative would cause a significant adverse effect. A *significant effect on the environment* is “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (CEQA Guidelines Section 15382). The significance criteria for this EIR are generally based on the series of questions provided in the CEQA Guidelines Appendix G Environmental Checklist.

3.1.3.2 Significance Thresholds

To determine whether the impact of a project-caused change compared to any of the significance criteria could be significant, CEQA lead agencies evaluate the degree of that change relative to an established threshold. CEQA Guidelines Section 15064.7 defines *threshold of significance* as “an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.” Such thresholds may be sourced from a variety of places including general plan policies, ordinances, other agencies’ thresholds, and industry standards. The thresholds used in this EIR are identified together with the relevant criteria on a resource-by-resource basis throughout this Chapter 3.

3.1.3.3 Significance Conclusions

Impact significance conclusions in this EIR are reached based on information in the record, including scientific and factual data as well as professional knowledge and judgment. Consistent with CEQA and the CEQA Guidelines, each significance conclusion is characterized as one of the following:

1. **No Impact:** This signifies that the Project or an alternative would not cause any change in the environment relative to the applicable significance threshold; under these circumstances, no mitigation measures are required. Resources for which the Initial Study prepared for the Project (**Appendix A2**) concluded that no impact would result are not analyzed in detail in this EIR.

2. **Less-than-Significant Impact:** This signifies that the Project or an alternative could cause an adverse change in the environment, but not one that would be substantial, relative to the applicable significance threshold. Under these circumstances, no mitigation measures are required. Resources for which the Initial Study prepared for the Project (**Appendix A2**) concluded that a less-than-significant impact would result are not analyzed in detail in this EIR.
3. **Less than Significant with Mitigation Incorporated:** This signifies that the Project or an alternative could cause an adverse change in the environment that would be substantial relative to the applicable significance threshold, but that the implementation of one or more feasible mitigation measures would reduce the significance of the impact below the threshold.
4. **Significant and Unavoidable:** This signifies that the Project or an alternative could cause a substantial adverse change in the environment relative to the applicable significance threshold; however, either no feasible mitigation measures are available, or, even with implementation of feasible mitigation measures, the significance of the impact would remain above the threshold.
5. **Cumulatively Considerable:** This signifies that the Project-specific or alternative-specific contribution to a significant cumulative impact would be considerable when viewed in connection with the incremental impacts of past projects, the impacts of other current projects, and the impacts of reasonably foreseeable probable future projects (as defined in CEQA Guidelines Section 15130).

3.1.3.4 Resources Eliminated from Detailed Consideration in This EIR

Table 3.1-1, *Resources and Significance Criteria Eliminated from Detailed Consideration*, identifies the resources and their significance criteria that were scoped out of the EIR based on conclusions in the Initial Study (Appendix A2) of “no impact” or “less-than-significant impact.” Certain other resources and significance criteria for which the Initial Study concluded that “no impact” or a “less-than-significant impact” would result nonetheless have been brought forward for more detailed environmental significance impact analysis in this Chapter 3 based on scoping comments and input received.

3.1.3.5 Mitigation Measures

Mitigation measures are feasible actions intended to avoid or substantially lessen significant impacts identified in the impact analysis. To avoid or reduce significant impacts, feasible mitigation measures have been recommended to address them. The effectiveness of recommended mitigation measures has been evaluated by analyzing the impact remaining after the implementation of the measure. In some cases, the implementation of more than one mitigation measure may be needed to reduce the significance of an impact below the threshold. Impacts that remain significant after feasible mitigation measures are applied are identified as significant and unavoidable impacts.

**TABLE 3.1-1
 RESOURCES AND SIGNIFICANCE CRITERIA ELIMINATED FROM DETAILED CONSIDERATION**

Biological Resources	
f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.174), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, Ch. 102), Specific Plans (L.A. County Code, Title 22, Ch. 22.46), Community Standards Districts (L.A. County Code, Title 22, Ch. 22.300 et seq.), and/or Coastal Resource Areas (L.A. County General Plan, Figure 9.3)?	Less-than-Significant Impact
Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved state, regional, or local habitat conservation plan?	No Impact
Hydrology and Water Quality	
e) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84)?	No Impact
Land Use and Planning	
a) Physically divide an established community?	No Impact
c) Conflict with the goals and policies of the General Plan related to Hillside Management Areas or Significant Ecological Areas?	Less-than-Significant Impact
Mineral Resources	
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Less-than-Significant Impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	Less-than-Significant Impact
Noise	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Less-than-Significant Impact
Public Services	
a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection, sheriff protection, schools, parks, libraries?	Less-than-Significant Impact
Recreation	
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Less-than-Significant Impact
b) Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment?	Less-than-Significant Impact
c) Would the project interfere with regional trail connectivity?	Less-than-Significant Impact
Transportation	
d) Result in inadequate emergency access?	Less-than-Significant Impact
Utilities and Service Systems	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less-than-Significant Impact

SOURCE: Draft EIR Appendix A2.

3.1.3.6 Future Projects Facilitated by the Draft 2045 CAP

The Draft 2045 CAP is a policy document that does not propose any specific development or any other specific physical change to the environment. No growth would result from implementation of the CAP beyond what the General Plan (including the Housing Element) currently anticipates. Nonetheless, future projects facilitated by Draft 2045 CAP measures and actions may cause environmental impacts. For example, Strategy 1, Strategy 4, and Strategy 5 (regarding decarbonization of the energy supply, vehicles, and buildings, respectively) would incentivize new or upgraded energy generation and related infrastructure. Examples of such projects could include distributed generation via solar roofs, community solar, or microgrids; battery storage and electric vehicle charging stations; utility-scale solar photovoltaic (PV) development; and/or energy transmission and subtransmission facilities. New or upgraded water recycling systems and waste management facilities, and the decommissioning of existing oil and gas operations also could be facilitated by Draft 2045 CAP measures and actions. Details about any specific such projects that could be facilitated by Draft 2045 CAP measures and actions are unknown.

Regarding new utility-scale solar projects, it would be speculative to quantify the amount of renewable energy that could be facilitated by the Draft 2045 CAP that would be provided by new utility-scale solar projects, or identify where that demand would be met, since the increased renewable energy demand could be met in a variety of additional ways, other than through new utility-scale solar projects. In particular, the importation of renewable energy into the unincorporated areas by providers such as the CPA and further development of rooftop solar are described below as reasonable, feasible steps on the County’s overall path to meeting its targets and advancing toward its goal of carbon neutrality. However, because the future development of new utility-scale, ground-mounted solar PV could be part of the mix, the impacts of such future development are evaluated qualitatively in this EIR.

Section 2.6.2.1 in Chapter 2, *Project Description*, describes the CPA, which enables the County to transition to a low-carbon energy future at an accelerated pace: “Starting in October 2022, customers in unincorporated areas of L.A. County will be getting 100% renewable energy – wind, solar, geothermal – from CPA, compared to the 50 percent clean energy they receive now... low-income customers on a subsidized rate will not have any rate increase” (CPA 2021; County of Los Angeles Chief Sustainability Office 2021). Not all of CPA’s clean energy would be generated in Los Angeles County: “Almost all this energy will come from wind and solar farms in California with a little bit coming from other western states and a little coming from geothermal and small hydroelectric” (County of Los Angeles Chief Sustainability Office 2021).

The County realistically can procure electricity that is generated by 100 percent renewable sources from CPA with a realistic expectation of resiliency.¹ CPA currently provides “100% renewable energy to nearly 1 million residents and businesses” across its service territory “without any supply shortages” (County of Los Angeles Chief Sustainability Office 2021). Further regarding challenges with the power grid, resiliency and reliance on 100 percent renewable energy, the Chief Sustainability Office has stated, “The power grid definitely needs to be upgraded, but for

¹ *Energy resiliency* means there is a reliable, regular supply of energy as well as contingency measures in place to provide backup in the event of a power failure.

the most part the grid doesn't care whether it is moving electricity that came from a coal plant or a solar project. So, transitioning away from dirty electricity to cleaner isn't going to cause the grid to breakdown." To assure that energy is available, CPA "procures extra power to have as a back-up, including from renewable resources like geothermal that operate around the clock. It is also the third largest purchaser of battery energy storage in California so that when there is extra wind or solar power, it can be stored for use when power is needed" (County of Los Angeles Chief Sustainability Office 2021).

Separate from renewable energy provided by CPA, a substantial amount of solar energy generation would likely occur on rooftops within the County. For example, a 2016 National Renewable Energy Laboratory (NREL) study that found that Los Angeles could support 9 gigawatts of rooftop solar, or 60 percent of its estimated total energy demand, using fairly conservative estimates (Gagnon et al. 2016). A 2020 study by the Institute of the Environment and Sustainability at the University of California, Los Angeles (UCLA) that considered 1.2 million parcels as part of its evaluation of urban rooftop solar capacity in the County also was encouraging in its conclusion that rooftop solar can provide 30 percent of building demands and additional net grid exports in the County (Porse et al. 2020).

The County is not alone in reasonably concluding that a 100 percent clean energy future would not be comprised exclusively of utility-scale ground-mounted solar PV. Others in the region independently are pursuing a similar path. For example, the City of Los Angeles Department of Water and Power (LADWP) in coordination with NREL also is considering feasible options toward a carbon neutral 2045 that anticipates significant growth in the development of rooftop solar and higher levels of building energy efficiency in addition to new ground-mounted solar energy generation system deployment and power system upgrades (Cochran et al. 2021). "Keeping the lights on was a foundational part" of the LADWP/NREL study, which concluded that "[r]eliable, 100% renewable electricity is achievable" (Cochran et al. 2021).

The County similarly expects that no single renewable energy approach will be sufficient to achieve necessary GHG emissions reductions. Further, even if new utility-scale solar projects would meet some of the increased renewable energy demand associated with the 2045 CAP, it would be speculative to predict whether these projects would be located in Los Angeles County versus other locations. The precise locations or composition of future utility-scale, ground-mounted solar PV that may be facilitated by the Draft 2045 CAP cannot now be known with sufficient certainty for this EIR to provide more than a qualitative analysis of impacts. The qualitative programmatic analysis considers the potential impacts of new utility-scale, ground-mounted solar PV projects, and associated infrastructure, e.g., battery storage, substation or transmission projects).

3.1.4 Approach to Cumulative Impacts Analysis

As defined in CEQA Guidelines Section 15355, the term *cumulative impacts* refers to two or more individual impacts, which, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from multiple projects is the change in the physical environment that results from the incremental impact of the proposed project when

added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Sections 15355[b] and 15130[a][1]).

The analysis in this section evaluates cumulative impacts on a resource-by-resource basis by considering the incremental impacts of the Project together with the ongoing effects of past, present, and reasonably foreseeable probable future projects that could cause environmental impacts that are closely related to those caused by the Project. Factors considered in determining whether a project is included in the cumulative impact analysis include whether it would cause impacts of the same nature as the Project in the same area at the same time. In each case, the analysis follows the steps listed below. The analysis of whether an alternative could cause or contribute to cumulative impacts is provided in Chapter 4, *Alternatives*, and follows these same steps.

1. For any resource area or consideration where the Project would result in no impact, the Project could not cause or contribute to any significant cumulative impact. No additional discussion is needed in such instances. For all other instances, the analysis continues.
2. Define the geographic scope of the impacts associated with each resource area affected by the Project. The geographic scope of the cumulative impacts analysis for each resource area is tailored to the natural boundaries of the affected resource or area of consideration. See **Table 3.1-2, *Geographic Areas for Cumulative Analysis***, which identifies the geographic scope of the impacts associated with each resource area affected by the Draft 2045 CAP. Only those projects that could cause impacts in the same geographic area are relevant for a given resource.
3. Define the temporal scope of the impacts associated with each resource area affected by the Project. For example, are the Project's impacts restricted to a certain period or have the potential to occur at any point during the planning horizon?
4. Identify relevant plans, projections, and projects for cumulative impact analysis, which consists of resource area-specific trends; projections contained in one or more local, regional, or statewide planning documents; and past, present, and reasonably foreseeable probable future projects.² The incremental contribution of past projects generally is reflected in the existing environmental conditions within the cumulative impacts area, which reflect a combination of the natural condition and the ongoing effects of past actions in the affected area.
5. Identify, on a significance criterion-by-criterion basis, the incremental Project-specific impact before the implementation of any identified mitigation measures. Note whether they are temporary or permanent, as well as whether limited to a specific issue (e.g., emissions of nitrogen oxides but not PM₁₀).
6. Describe the impacts associated with the plans/projections and projects within the geographic and temporal scopes of the respective resource's impacts and determine whether the Project's impacts and the cumulative projects' impacts (when combined) would be significant. If not, the analysis concludes that a less-than-significant cumulative impact would result.
7. If when combined, the Project's impacts and the cumulative plans', projections' or projects' impacts would be significant, then determine whether the Project's incremental impact is cumulatively considerable. A less-than-significant incremental impact may, nonetheless, be

² CEQA Guidelines Section 15130(b) recommends that cumulative impacts be analyzed using a "project" or "projection" approach. This EIR uses a blended hybrid approach.

cumulatively considerable. The Project’s contribution to a significant cumulative impact may not be cumulatively considerable based on the implementation of appropriate mitigation. The cumulative impact analyses first determine whether the Draft 2045 CAP’s incremental impacts would be cumulatively considerable pre-mitigation, and then consider whether they would be cumulatively considerable post-mitigation. Mitigation measures identified at the Project-specific level can be considered in this context to determine whether their implementation would reduce the significance of the cumulative contribution below the established threshold. If with mitigation the Project’s contribution would not be cumulatively considerable, then the analysis concludes that the Project’s cumulative impact would be less than significant. Alternatively, even with the implementation of feasible mitigation measures, if the Project’s contribution would remain above the identified threshold, then the analysis concludes that the Project’s cumulative impact would be significant and unavoidable.

**TABLE 3.1-2
 GEOGRAPHIC AREAS FOR CUMULATIVE ANALYSIS**

Resource Area	Geographic Area
Aesthetics	Public viewsheds, e.g., scenic views of hillsides and mountains and the three adopted scenic highways within the unincorporated areas.
Agriculture and Forestry	Farmland in the unincorporated areas that has been designated pursuant to Farmland Mapping and Monitoring Program as Prime Farmland, Farmland of Statewide Importance or Unique Farmland; that has been designated by the County as Farmland of Local Importance or Grazing Land; or that is subject to a Williamson Act contract. Forest land in the unincorporated areas includes Angeles National Forest and a small portion of Los Padres National Forest (which are managed by the U.S. Forest Service) and approximately 40,000 acres of private inholdings within these forests that are subject to the County’s land use jurisdiction.
Air Quality	The South Coast Air Basin and the Mojave Desert Air Basin.
Biological Resources	Los Angeles County, the adjacent Tehachapi Mountains and Mojave Desert within Kern County to the north, the Mojave Desert and San Bernardino National Forest within San Bernardino County to the east, the Cleveland National Forest within Orange and Riverside counties to the southeast, and Santa Monica Mountains and Los Padres National Forest within Ventura County to the west.
Cultural Resources, Tribal Cultural Resources, and Paleontological Resources	Countywide.
Energy	Countywide (electricity) and 40-mile travel radius (fuel).
Geology and Soils	Geologic and soils impacts are site specific, and therefore would not contribute to cumulative impacts.
GHGs	Statewide, with a focus on the unincorporated areas.
Hazards and Hazardous Materials	The unincorporated areas.
Hydrology and Water Quality	The hydrologic regions, major watershed areas, regional groundwater recharge areas, and groundwater basins in the County.
Land Use and Planning	The unincorporated areas.
Noise	Countywide, including the sites of future development facilitated by the Draft 2045 CAP.
Population and Housing	The unincorporated areas.
Transportation	Countywide.
Utilities and Service Systems	Service areas of regional utility and service providers.
Wildfire	Region, including areas within the County mapped by the California Department of Forestry and Fire Protection (CAL FIRE) as Very High, High, and Moderate Fire Hazard Severity Zones.

3.2 Aesthetics

This section identifies and evaluates issues related to aesthetics to determine whether the Project would result in a significant impact related to scenic vistas; views from a regional trail; scenic resources in a state scenic highway; existing visual character or quality; or shadows, light, or glare that would adversely affect day or nighttime views in the area. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. In addition to suggestions that the EIR evaluate the impacts of new and upgraded renewable energy infrastructure, comments suggest that the Draft 2045 CAP could facilitate the development of new waste handling and composting (mulch generation) facilities, renewable energy generation facilities, and water recycling facilities in the Los Angeles County's more rural communities, and that such future development could cause impacts on aesthetics. Comments relevant to aesthetics note that the Antelope Valley has two existing dumps and multiple solar farms and request consideration of the cumulative impacts of adding the Draft 2045 CAP's incremental contribution to the existing environment.

3.2.1 Setting

3.2.1.1 Study Area

The study area for this analysis of aesthetics impacts consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated areas of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2. Some portions of the unincorporated County are urban centers with large populations of more than 150,000, whereas other areas (such as the high desert) have sparse populations.

3.2.1.2 Environmental Setting

Regional Visual Character

Los Angeles County is a large region with a diverse visual setting that includes both natural and built environments. Natural environments in the region include the coastal resources, beaches, foothills, mountains, and ridgelines, and the high desert environment of the Antelope Valley. Coastal landscapes range from open sandy beaches to rugged, cliff-edged shores with offshore rocks. The San Gabriel Mountains, Verdugo Hills, Santa Susana Mountains, Simi Hills, Santa Monica Mountains, and Puente Hills shape the topography of the region and create distinct communities with varying aesthetic character. These landforms, along with the coastline, define the region's scenic character.

Urban and built environments include industrial, commercial, residential, office, institutional, and public land uses (Los Angeles County 2015a, 2021a). Each of the 11 County Planning Areas has a different visual character defined by the surrounding topography and landforms, and natural environments, built environment, and communities. For example, the visual character of the East San Gabriel Valley Planning Area, in the easternmost part of Los Angeles County, is predominantly suburban with predominantly single-family residential uses, particularly in the areas closer to the foothills on the northern border of the Planning Area (Los Angeles County 2021b).

Scenic Vistas and Viewsheds

The General Plan does not designate scenic vistas, but identifies them as a key feature of a *scenic viewshed*, which is a scenic vista from a given location, such as a highway, park, hiking trail, river/waterway, or particular neighborhood. The roadway network, including highways, is described in Section 3.15, *Transportation*. Local parks, regional recreation parks, regional open space, natural areas, and the local and regional park systems are described in Section 4.16, *Recreation*, of LA County’s Housing Update EIR (Los Angeles County 2021c). The Santa Monica Mountains, unincorporated areas surrounding the city of Santa Clarita, and the Antelope Valley support a high concentration of County trails (Los Angeles County 2015a). Notably, the Pacific Crest Trail traverses the San Gabriel Mountains within Angeles National Forest, extending generally west–east across the San Gabriel Mountains. The boundaries of scenic viewsheds are defined by the field of view from the nearest ridgeline. Scenic vistas are available, for example, from the San Gabriel Mountains, Verdugo Hills, Santa Monica Mountains, Simi Hills, and Puente Hills. Scenic viewsheds may include ridgelines, unique rock outcroppings, waterfalls, ocean views, or other usual or scenic landforms (Los Angeles County 2015a).

Using LA County’s definitions of scenic viewsheds and significant scenic resources, individual communities within the unincorporated areas may designate specific scenic viewsheds, routes, or resources. For example, Goal COS 5 in the Antelope Valley Area Plan identifies scenic resources in the Antelope Valley as including scenic drives, significant ridgelines, Hillside Management Areas (HMAs), Significant Ecological Areas (SEAs), water features, and buttes (Los Angeles County 2015b). Designated scenic drives are shown in the area Antelope Valley Area Plan’s Map 4.2, *Antelope Valley Scenic Drives* (Los Angeles County 2015b).

Scenic Highways

Through the California Scenic Highway Mapping Program, the California Department of Transportation (Caltrans) designates routes that are eligible to become state or Los Angeles County scenic highways. These determinations are based on the scenic value of the lands surrounding these roadways, and on how readily visible these resources are to those driving on the roadway (Los Angeles County 2021b). According to state guidelines, a highway may be designated scenic depending on the amount of the natural landscape that can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes on the traveler’s enjoyment of the view (Caltrans 2022).

Caltrans has designated the following highways in Los Angeles County as scenic (Caltrans 2015, 2017):

- Two designated state scenic highways: Angeles Crest Highway (State Route [SR] 2) from 2.7 miles north of Interstate 210 to the San Bernardino County line, and Topanga Canyon State Scenic Highway (a 2.5-mile segment of State Route 27 that runs through the County and City of Los Angeles in the Santa Monica Mountains National Recreation Area near the Pacific coast).
- Two designated Los Angeles County scenic highways:
 - Two sections of Mulholland Highway—from SR 1 to Kanan Dume Road, and from west of Cornell Road to east of Las Virgenes Road.
 - Malibu Canyon–Las Virgenes Highway, from SR 1 to Lost Hills Road.

Eight highways in unincorporated Los Angeles County are eligible for designation (Caltrans 2019). The Los Angeles County Scenic Highway Element was created in 1974 to conform to the State Scenic Highway Program (Los Angeles County 1974).

Dark Skies

Although the more urbanized areas of Los Angeles County are heavily affected by nighttime lighting, light pollution is less evident in less densely populated parts of the County, such as in foothill communities located away from the Los Angeles Basin and in the Antelope Valley. In darker areas of the County, the best times of the year for clear skies, good weather, and interesting astronomical sights are between March and May and between September and November (Space Tourism Guide 2022).

3.2.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies pertaining to aesthetics would apply to the Draft 2045 CAP.

State Laws, Regulations, and Policies

California Department of Transportation Scenic Highway Program

The California Scenic Highway Program (Streets and Highways Code Sections 260–263) is maintained by Caltrans to “protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment” (Caltrans 2022). Caltrans either officially designates state scenic highways or determines them to be eligible for such designation. Factors considered in determining whether a highway is “scenic” include the amount of natural landscape visible by motorists, the scenic quality of the landscape, and the extent to which development intrudes on the motorist’s enjoyment of the view (Caltrans 2022).

California Building Code

The California Building Code (California Code of Regulations Title 24) consists of 12 parts that combine building standards contained in or based on provisions of the International Building Code, or that have been adopted by the California Legislature to address particular California concerns (California Department of General Services, Division of the State Architect 2021). It includes standards for outdoor lighting that are intended to improve energy efficiency, and to reduce light pollution and glare by regulating backlighting, uplighting, and glare as well as light power and brightness, shielding, and automatic sensor controls. Minimum light intensities for pedestrian pathways, circulation ways, parking lots, and paths of egress are stipulated in Part 1; lighting control requirements are stipulated in Part 6. Outdoor lighting power density allowances and nighttime dimming requirements for outdoor lighted signs are also provided.

Regional and Local Laws, Regulations, and Policies

Los Angeles County General Plan 2035

The Conservation and Natural Resources Element of the General Plan includes the following policies that are relevant to aesthetic impacts in the unincorporated areas:

Policy C/NR 13.1: Protect scenic resources through land use regulations that mitigate development impacts.

Policy C/NR 13.2: Protect ridgelines from incompatible development that diminishes their scenic value.

Policy C/NR 13.4: Encourage developments to be designed to create a consistent visual relationship with the natural terrain and vegetation.

Policy C/NR 13.6: Prohibit outdoor advertising and billboards along scenic routes, corridors, waterways, and other scenic areas.

Policy C/NR 13.8: Manage development in Hillside Management Areas (HMAs) to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.

As part of the General Plan's Conservation/Open Space and Land Use Elements, LA County has identified and adopted policies for SEAs. The objective of the SEAs is to preserve Los Angeles County's genetic and physical ecological diversity by designating biological resources areas capable of sustaining themselves into the future. The SEA designation is given to land that contains irreplaceable biological resources and includes undisturbed or lightly disturbed habitats that support valuable and threatened species and linkages and corridors to promote species movements. SEAs represent a wide range of ecological communities and provide aesthetic enjoyment.

The Land Use Element of the General Plan includes the following goals and policies that are relevant to analyzing the Project's aesthetics impacts:

Policy LU 10.2: Design development adjacent to natural features in a sensitive manner to complement the natural environment.

Policy LU 10.3: Consider the built environment of the surrounding area and location in the design and scale of new or remodeled buildings, architectural styles, and reflect appropriate features such as massing, materials, color, detailing or ornament.

Policy LU 10.5: Encourage the use of distinctive landscaping, signage and other features to define the unique character of districts, neighborhoods or communities, and engender community identity, pride and community interaction.

Policy LU 10.10: Promote architecturally distinctive buildings and focal points at prominent locations, such as major commercial intersections and near transit stations or open spaces.

Goal LU 6: Protected rural communities characterized by living in a non-urban or agricultural environment at low densities without typical urban services.

Policy LU 6.2: Encourage land uses and developments that are compatible with the natural environment and landscape.

Goal LU 7: Compatible land uses that complement neighborhood character and the natural environment.

Goal LU 10: Well-designed and healthy places that support a diversity of built environments.

Policy LU 10.2: Design development adjacent to natural features in a sensitive manner to complement the natural environment.

Policy LU 10.3: Consider the built environment of the surrounding area and location in the design and scale of new or remodeled buildings, architectural styles, and reflect appropriate features such as massing, materials, color, detailing or ornament.

Policy LU 10.5: Encourage the use of distinctive landscaping, signage and other features to define the unique character of districts, neighborhoods or communities, and engender community identity, pride and community interaction.

Policy LU 10.10: Promote architecturally distinctive buildings and focal points at prominent locations, such as major commercial intersections and near transit stations or open spaces.

Area Plans and Community Plans

LA County has adopted three area plans: the Antelope Valley Area Plan, Santa Clarita Valley Area Plan, and Santa Monica Mountains North Area Plan. Consideration of two other area plans is pending: the Metro Area Plan and the East San Gabriel Valley Area Plan. LA County also has adopted seven community plans (one each for Altadena, East Los Angeles, Hacienda Heights, Rowland Heights, Twin Lakes, Walnut Park [a “neighborhood plan”], and West Athens–Westmont) and three local coastal land use plans: the Marina del Rey, Santa Monica Mountains, and Santa Catalina Island Local Coastal Land Use Plans. These community-based plans contain policies and standards that regulate visual resources in their respective areas. For example, Issue 2 in the Altadena Community Plan calls for the preservation of existing single-family character in Altadena (Los Angeles County 1986).

Los Angeles County Code

Several sections of the LA County Code address visual resources. Title 21, governing subdivisions, would apply to new subdivisions that could be facilitated by the Draft 2045 CAP and contains provisions related to the design of highways, local streets, lots, and aspects of landscaping. Title 22, governing planning and zoning, describes the development standards that apply to each zone. Chapter 22.80, for example, regulates light and glare and Division 10 contains development regulations and standards for community standards districts.

Rural Outdoor Lighting District Ordinance

LA County's Rural Outdoor Lighting District Ordinance is part of Title 22 of the LA County Code (the Zoning Code). It was developed to promote dark skies and minimize the impacts of light pollution that are detrimental in rural areas to observations of the nighttime sky and to the health of wildlife. The Rural Outdoor Lighting District encompasses several small portions of the unincorporated urban islands (mostly foothill areas, such as in the San Gabriel Mountains), many of the unincorporated areas in the Santa Clarita Valley Planning Area and the Santa Monica Mountains Planning Area, and nearly all of the Antelope Valley Planning Area.

Los Angeles County Hillside Management Areas

The HMA Ordinance applies to all unincorporated areas of the County that contain terrain with a natural slope of 25 percent or greater. The goal of the ordinance is to ensure that development preserves the physical integrity and scenic value of HMAs, provides open space, and enhances community character. It encourages locating development outside of HMAs to the greatest extent feasible. Where avoidance is not feasible, development of HMAs is to be located in the lowest and flattest areas of the hillside to minimize impacts on steeper hillside areas. Last, development is to utilize a variety of sensitive hillside design techniques to ensure compatibility with the hillside and enhance community character. Development within HMAs is regulated under the Special Management Area provisions of Chapter 22.104 of the Los Angeles County Planning and Zoning Code.

Los Angeles County Mills Act Program

Chapter 22.168 of the Zoning Ordinance is LA County's Mills Act Program. The program provides an incentive for owners of qualified historical properties within the unincorporated areas to preserve, restore, and rehabilitate the historic character of such properties, thereby providing a historical, architectural, social, artistic, and cultural benefit to the citizens of Los Angeles County, as authorized by the Mills Act (Government Code Section 50280).

Los Angeles County Oak Tree Ordinance

Chapter 22.174 of the Los Angeles County Code of Ordinances is the Oak Tree Ordinance. The ordinance recognizes oak trees in Los Angeles County as a historical, aesthetic, and ecological resource. The ordinance applies to all unincorporated areas of the County. Under the ordinance, it is unlawful to "cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any tree of the oak genus" that is 8 inches or more in diameter.

Renewable Energy Ordinance

LA County's Renewable Energy Ordinance helps California meet its goals for renewable energy generation and generation of greenhouse gas emissions. The two primary goals of this ordinance are:

- Incentivize small-scale and structure-mounted projects to generate energy for on-site use, and structure-mounted projects (such as on rooftops and over parking lots) to reduce dependence on ground-mounted utility-scale projects.
- Regulate ground-mounted, utility-scale projects to better address community concerns and minimize environmental impacts, including impacts on visual resources, that could be caused by aboveground placement of transmission lines and the generation of fugitive dust associated with ground-disturbing activities or vegetation clearance.

The Renewable Energy Ordinance prohibits ground-mounted, utility-scale solar facilities in SEAs and Economic Opportunity Areas designated in the General Plan and the Antelope Valley Area Plan (Los Angeles County 2009). The Renewable Energy Ordinance also contains a suite of provisions to minimize the impacts of utility-scale, ground-mounted solar energy facilities on visual resources, including setbacks, provisions requiring the placement of transmission lines underground, and the incorporation of measures to minimize fugitive dust.

3.2.2 Impact Analysis

3.2.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would have a significant impact on aesthetics if it would:

- a) Have a substantial adverse effect on a scenic vista;
- b) Be visible from or obstruct views from a regional riding, hiking, or multiuse trail;
- c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- d) Substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality (public views are those that are experienced from a publicly accessible vantage point); or
- e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area.

3.2.2.2 Methodology

The aesthetics analysis considers whether implementation of the Draft 2045 CAP would cause a significant impact on visual resources in unincorporated areas of the County. This section addresses

scenic vistas, views from trails, visual character, and shadows, light, and glare. The assessment of aesthetics impacts is a qualitative evaluation, for which no discrete set of quantifiable parameters exists that can be applied. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local laws, ordinances, and regulations.

3.2.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas emissions in unincorporated areas of the County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed greenhouse gas emissions reduction strategies and measures. None of the proposed measures or actions indicate locations where individual projects would be constructed, their size, or their specific characteristics, because the locations and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of the implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about individual project implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are evaluated qualitatively at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP*.)

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than project-level or site-specific physical impacts of such actions. Table ES-1, Summary of Draft 2045 CAP Measures and Affected Resource Areas, in the Executive Summary, identifies certain measures and actions relevant to this analysis of aesthetics-related impacts. These and other relevant measures and actions include Action T3.3 (which would facilitate the use of shading [shadow] and pedestrian-scale lighting); measures and actions associated with Strategy 1, Decarbonize the Energy Supply; Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; Measures T6, T7, T8, and T9, each regarding the electrification of vehicles; and Strategy 5, regarding the electrification of buildings. These measures and actions could facilitate renewable energy generation and infrastructure projects, the development of which could affect aesthetics. Specific aesthetics impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would have a substantial adverse effect on a scenic vista.

Impact 3.2-1: Projects facilitated by the Draft 2045 CAP would have a substantial adverse effect on a scenic vista. (*Significant and Unavoidable*)

The Draft 2045 CAP is a policy document that does not include specific projects that would have a direct, adverse effect on scenic vistas. Nonetheless, many of the projects facilitated by Draft

2045 CAP measures and actions would involve retrofitting of existing buildings, development along existing transit areas, infill projects in urban locations that are already developed, electric vehicle charging stations, or distributed energy resources like rooftop solar panels. Where located in developed areas, these types of projects are not expected to significantly affect views from scenic vistas or viewsheds because they would be more likely to blend in with surrounding development, and would not be likely to create changes to visual quality that would be visible from a scenic vista or that would significantly interrupt views available from scenic vistas. For example, rooftop photovoltaic panels generally do not significantly alter rooflines or create large features that could be visible from the street level because (by code) they are not allowed to exceed the height limit for the zone in which the project is developed by more than 5 feet.

However, larger-scale projects facilitated by the Draft 2045 CAP in more rural or open areas (such as utility-scale solar generation facilities, waste handling facilities, or water recycling facilities) and ground-mounted energy systems on a hillside or desertscape could, depending on project specifics and siting details, alter scenic views by introducing elements that break existing horizon lines or otherwise detract from a scenic vista or viewshed. Impacts could include short-term, temporary visual impacts from construction vehicles, dust, or lighting, or long-term impacts from the introduction of new forms (such as straight lines or sharp angles of areas cleared for new access roads to and through new projects or from cleared areas beneath power lines) or structures (such as power poles and lines, solar panels, operation and maintenance buildings, battery enclosures and substations) that have height, forms, or colors that contrast with existing conditions. Hillside Management Ordinance protections would apply if a project would involve cut and fill of 15,000 cubic yards of material or more, but would not apply to smaller projects. The Renewable Energy Ordinance contains a suite of provisions to minimize the impacts of utility-scale, ground-mounted solar energy facilities on visual resources, including setbacks, provisions requiring the placement of transmission lines underground, and the incorporation of measures to minimize fugitive dust. Where the Hillside Management Ordinance or the Renewable Energy Ordinance requires a conditional use permit (Los Angeles County 2016), projects implementing Draft 2045 CAP measures and actions would be subject to site-specific, project-specific CEQA review; however, such review would not ensure that significant impacts on scenic views and viewsheds would be reduced to a less-than-significant level. Accordingly, smaller projects not governed by the Hillside Management Ordinance and larger (e.g., utility-scale) renewable energy projects facilitated by Draft 2045 CAP actions and measures would result in a significant impact.

Projects facilitated by Draft 2045 CAP measures and actions, potentially including wastewater treatment plants or organic waste processing facilities as well as energy-related projects, would be required to be consistent with the General Plan provisions summarized in Section 3.2.1.2, *Environmental Setting*. Such projects also must comply with applicable sections of the LA County Code, which regulate the appearance and siting of physical developments to protect hillside views, the modification of scenic resources, and the visual quality of new development. Projects requiring a conditional use permit or other discretionary authorization would have to meet development standards of the LA County Code. Additionally, compliance with LA County Code provisions relating to the protection of HMAs would preserve the scenic character of affected ridgelines and hillsides. Because Los Angeles County's varied topography allows for myriad long range views from the Los Angeles Basin to the foothills and mountains, as well as long range views from the

foothills and mountains to the Los Angeles Basin and coast, compliance with the HMA Ordinance would reduce aesthetics impacts from hillside and ridgeline scenic vistas and viewsheds (Los Angeles County 2015a).

Furthermore, the Draft 2045 CAP includes Measure A1, which would preserve agricultural and forest lands, and Measure A3, which would expand Los Angeles County's tree canopy and green spaces. These policies would preserve existing open spaces that contribute to the visual quality of scenic vistas and would result in a beneficial impact. Additionally, Measure T3 would expand bicycle and pedestrian networks, which could result in an expansion in the number and accessibility of publicly accessible scenic vistas, resulting in a beneficial impact.

Consistency with General Plan and zoning provisions and implementation of Draft 2045 CAP measures and actions would reduce impacts to scenic vistas; nonetheless, smaller renewable energy projects not governed by the Hillside Management Ordinance and larger (e.g., utility-scale) renewable energy projects facilitated by Draft 2045 CAP actions and measures would result in a significant impact. Consistent with the findings of LA County's Renewable Energy Ordinance EIR (Los Angeles County 2015c), there are no feasible mitigation measures available to reduce these impacts.

Mitigation: No feasible mitigation measures are available to reduce impacts.

Significance after Mitigation: Impacts would be significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b) Whether the Project would be visible from or obstruct views from a regional riding, hiking, or multiuse trail.

Impact 3.2-2: Projects facilitated by the Draft 2045 CAP would be visible from or obstruct views from a regional riding, hiking, or multiuse trail. (*Significant and Unavoidable*)

A wide variety of trail types are found throughout Los Angeles County, including multiuse trails that are accessible to pedestrians, equestrians, and mountain bikers. Trails provide connectivity to parks, open spaces, and wilderness areas. The highest concentration of trails in Los Angeles County exists in the Santa Monica Mountains, around Angeles National Forest, throughout the Antelope Valley and near the foothills of the San Gabriel Mountains, and in the eastern areas of Los Angeles County near Lancaster and Palmdale (Los Angeles County 2015a).

As described above, the Draft 2045 CAP does not propose any site-specific projects. Nonetheless, projects facilitated by Draft 2045 measures and actions could result in visual changes that would be visible or obstruct views from a regional riding, hiking, or multiuse trail. For example, the development of utility scale solar or other renewable energy projects facilitated by the Draft 2045 CAP would result in visual changes that would obstruct views or that would be visible from a regional riding, hiking, or multiuse trail if the solar panel arrays or security fencing or other project infrastructure were to be installed between regional trail users and views otherwise available from those trails.

Draft 2045 CAP strategies such as Strategy 5, Strategy 6, and Strategy 7 would include measures that would require retrofits to existing buildings to electrify appliances, increase energy efficiency, and reduce water consumption. For example, Measure E1 would transition many existing buildings to all-electric and Measure E4 would improve the energy efficiency of existing buildings. These types of building retrofits would not be expected to result in changes to the mass, height, or color of buildings or other changes that could create a visual change visible from regional trails.

Although these types of projects would not result in significant visual impacts, other projects could result in more noticeable visual contrast and changes, especially if the projects are located in more rural or open-land areas of Los Angeles County. As evaluated under Impact 3.2-1, projects facilitated by Draft 2045 CAP measures and actions must be consistent with the General Plan, comply with applicable, independently enforceable provisions of the LA County Code (including the HMA and Renewable Energy Ordinances), and site-specific environmental review for projects requiring a conditional use permit or other discretionary approval from a state or local agency. These requirements would reduce, aesthetics impacts, but not necessarily to less-than-significant levels.

Mitigation Measure 3.2-1, Alternative Design: Sponsors of any project facilitated by the Draft 2045 CAP that would be visible from or obstruct views from a regional riding, hiking, or multiuse trail shall identify and protect views and significant landscape features or landforms visible from such a trail and shall implement project-specific mitigation as applicable. If it is determined that a project would obstruct scenic views, LA County shall (and other implementing state or local agencies can and should) consider alternative designs that seek to avoid and/or minimize obstruction of scenic views. Project-specific design measures may include reduction in height of improvements or width of improvements to reduce obstruction of views, or relocation of improvements to reduce obstruction of views. LA County shall (and other implementing state or local agencies can and should) consider taking the following (or equivalent) actions: i) Require that the scale and massing of new development provide appropriate transitions in structure height and bulk that are sensitive to the physical and visual character of the affected area; ii) ensure structure heights are stepped back from sensitive adjoining uses to maintain appropriate transitions in scale and to protect scenic views; iii) avoid siting electric towers, solar power facilities, wind power facilities, communication transmission facilities and/or above ground lines where they could obstruct views from a regional riding, hiking, or multiuse trail or along scenic roadways and routes; and iv) prohibit projects and activities that would obscure, detract from, or negatively affect the quality of views from designated regional trails or scenic highways.

Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures: To partially screen views of projects facilitated by Draft 2045 CAP measures and actions in locations where they would be visible from publicly accessible vantage points, LA County shall (and other implementing state or local agencies can and should) require if feasible and effective the construction of a berm of sufficient height to provide a visual transition from ground level to surrounding hills or ridgelines. The color of proposed building facades and roofs shall be designed to minimize the potential for visual contrast between the project elements and their natural landscape surroundings. Bright or very light colors (including white) shall be avoided. Re-contouring and revegetation of temporarily disturbed, graded areas shall be completed to provide a natural appearing landform upon completion of construction.

Significance after Mitigation: Impacts would be significant and unavoidable. The implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures, would reduce the severity of the impact but would not alone ensure that the impact would be less than significant. Accordingly, with the implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2, Impact 3.2-2 would remain significant and unavoidable. No additional feasible mitigation measures are available.

Criterion c) Whether the Project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Impact 3.2-3: Projects facilitated by the Draft 2045 CAP would substantially damage scenic resources, including, but not limited to, trees, rocks, outcropping, and historic building within a state scenic highway. (*Significant and Unavoidable*)

Caltrans has designated two highways in Los Angeles County as state scenic highways: Angeles Crest Highway (SR 2) from 2.7 miles north of Interstate 210 to the San Bernardino County line and the Topanga Canyon State Scenic Highway (a 2.5-mile segment of SR 27 located in the Santa Monica Mountains National Recreation Area near the Pacific coast). All but two of the parcels adjacent to the designated portion of SR 2 are within the watershed (W) zone, where permitted uses are those uses owned and maintained by the U.S. Forest Service and recreational uses approved by the Forest Service (County Code Section 22.40.250). One of the other parcels is designated R-R (Resort and Recreation), where permitted uses include recreation, amusement, and agricultural uses (LA County Code Section 22.40.190); the other is designated A-1 (Light Agricultural), where permitted uses include single-family residences, crops (field, tree, bush, berry, row, and nursery stock), greenhouses, and raising of cattle, horses, sheep, goats, poultry, birds, earthworms, and the like (LA County Code Section 22.24.070).

As disclosed above, the Draft 2045 CAP measures and actions could facilitate projects that would result in visual contrast or changes during the construction of projects or by creating new structures that would create changes to existing visual conditions. These projects could occur near designated scenic highways and could, depending on the location and design of the projects, result in changes to the visual resources visible along a scenic highway such as trees, rock outcroppings, or historic buildings. Most projects facilitated by Draft 2045 CAP measures and actions would involve modifications to existing buildings or would be located in areas that are already developed and are not as likely to be located near scenic resources, such as rock outcroppings or trees (Measures E1 and E4). These projects would not be likely to damage scenic resources.

As described above, the Draft 2045 CAP does not propose any site-specific projects. Nonetheless, Draft 2045 CAP Measure T3 could facilitate projects that would expand the bicycle and pedestrian network to serve residential, employment, and recreational trips; and Action T6.3 would result in the installation of electrical vehicle charging stations for new development. Such projects could be permitted uses on land adjacent to the portion of SR 2 that is a designated state scenic highway.

Other types of projects that could be facilitated by Draft 2045 CAP measures and actions (such as infill mixed-use projects, composting facilities, wastewater treatment facilities, or utility-scale, ground-mounted renewable energy projects) would not currently be allowable uses in locations adjacent to the specified portions of SR 2 or SR 27. Requisite consistency with the existing General Plan would tend to protect scenic resources, protect ridgelines and hillsides, prohibit advertising along scenic routes, protect historical resources, and support the preservation of historic buildings. Compliance with zoning requirements (including the Oak Tree and HMA Ordinances) would protect trees and views of hillsides and ridgelines in the state scenic highway corridors. Further, incentives provided by the Mills Act Program would reduce the potential for a project facilitated by Draft 2045 CAP measures and actions to substantially damage scenic resources within a state scenic highway because they would incentivize the protection of historic buildings. Nonetheless, if projects facilitated by Draft 2045 CAP measures and actions were to be constructed within the designated portions of SR 2 or SR 27 (or within areas that could affect the scenic highway designation eligibility factors), then substantial damage to scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings, could occur as a result of tree removal or blasting required for the construction of access roads or power line tower footings, maintenance of power line clearance zones or the implementation of vegetation management activities within the utility right of way, or burying underground utility lines. A significant adverse impact would result.

Mitigation: Implement Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures.

Significance after Mitigation: The impact would be significant and unavoidable. The implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures would reduce the severity of the impact relating to substantial damage to scenic resources within a state scenic highway but would not alone ensure that the impact would be less than significant. Accordingly, with the implementation of these two mitigation measures, Impact 3.2-3 would remain significant and unavoidable. No additional feasible mitigation measures are available.

Criterion d) Whether the Project would substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. (Public views are those that are experienced from a publicly accessible vantage point.)

Impact 3.2-4: Projects facilitated by the Draft 2045 CAP would substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations of governing scenic quality. (Public views are those that are experienced from a publicly accessible vantage point.) (Significant and Unavoidable)

Neither the Draft 2045 CAP nor projects facilitated by Draft 2045 CAP measures and actions would conflict with applicable zoning and other regulations governing scenic quality because no changes to existing zoning or other regulations governing scenic quality are proposed. Although

the Draft 2045 CAP does not include specific proposed projects that could directly result in new or expanded development that could substantially degrade the existing visual character or quality of public views of the site and its surroundings due to their height, bulk, pattern, scale, character, or other features, projects facilitated by Draft 2045 CAP measures and actions could do so.

The Draft 2045 CAP includes measures and actions that would incentivize mixed-use developments, infill developments along transit-oriented areas, and the development of water recycling, waste management, and/or compost processing facilities, as well as renewable energy generation and infrastructure projects. Some of these types of projects (like infill developments along transit-oriented areas) could be proposed in developed areas where they would not substantially degrade the existing visual character or quality of public views of sites and their surroundings. However, other types of projects (like utility-scale, ground-mounted energy generation and infrastructure projects or solid waste or composting facilities) are more likely to be proposed in more rural, open land areas of Los Angeles County, where the resulting visual contrast to existing conditions would be greater. All projects facilitated by Draft 2045 CAP measures and actions must be consistent with the General Plan and comply with applicable provisions of the LA County Code, including its regulation of height limits, setbacks, bulk, and the like as well as development standards appropriate to each zone. This consistency and compliance would minimize impacts on visual character. The LA County Code also includes specific ordinances to protect the visual quality of HMAs and ridgelines.

Projects resulting from implementation of Draft 2045 CAP measures and actions that are proposed in areas that feature existing urban development could introduce higher density development, mixed uses, rooftop solar, and the adjustment of landscaping to drought tolerant plants. Such changes in such locations are expected to result in small adjustments to community character and visual appearance. Retrofits to existing buildings to incorporate water and energy efficiency measures would likely involve changes to the interior of building structures and would not be visible from publicly accessible viewpoints.

Other projects facilitated by Draft 2045 CAP measures and actions, such as water recycling, waste management, and/or compost processing facilities, and utility-scale, ground-mounted renewable energy generation or infrastructure projects, could be proposed in more rural areas such as the Antelope Valley, where the introduction of project components could affect the existing visual character or quality of public views of the site and its surroundings because of their height, bulk, pattern, scale, character, or other features. For example, the introduction into the existing landscape of industrial features (such as the pavement, settling ponds, tanks and piping characteristic of a wastewater treatment facility; the composting windrows and related facilities, equipment, roads, parking and storage areas needed for a composting facility; and solar panel arrays, battery enclosures, substations, and switching stations needed for renewable energy generation and transmission) would transform the existing visual character or quality of public views of currently undeveloped sites and their surroundings. A significant impact on visual character or quality would result.

Mitigation: Implement Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures.

Significance after Mitigation: The impact would be significant and unavoidable. The implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protect Measures, would reduce the significance of project-caused changes to existing visual character or quality but would not ensure that the impact would be less than significant. Accordingly, with the implementation of these two mitigation measures, Impact 3.2-4 would remain significant and unavoidable. No additional feasible mitigation measures are available.

Criterion e) Whether the Project would create a new source of substantial shadows, light, or glare, which would adversely affect day or nighttime views in the area.

Impact 3.2-5: Projects facilitated by the Draft 2045 CAP would create a new source of substantial shadow, light, or glare, which would adversely affect day or nighttime views in the area. (*Less-than-Significant with Mitigation Incorporated*)

Shade, shadow, and glare could be created if buildings or structures were to block or direct the sunlight relative to adjacent properties, thereby affecting the users or occupants of adjacent properties. Related impacts can be influenced by the time of day, season, weather, height and bulk of buildings, spacing, topography, and other factors. Shade and shadow can result in positive effects, such as cooling, or negative effects, such as the loss of natural light. Projects facilitated by Draft 2045 CAP, Action T3.3 for example, would affect shade and shadow conditions because their implementation would enhance the shading of pedestrian and bicycle environments, include energy-efficient pedestrian-scale lighting, and result in the construction of shade structures at major transit stops. This would be an environmental benefit.

The Draft 2045 CAP measures and actions could result in the introduction of lighting to the environment as a result of the development of projects such as mixed-use or infill developments, building retrofits, composting facilities, water recycling facilities, or solar energy generation facilities. Depending on the location and design of these projects, they have the potential to create shade, shadows, daytime or nighttime glare, or nighttime lighting of proposed buildings or other structures.

Anything that scatters light between its source and the back of a person's eye can cause glare. Rain, snow, fog, or smoke can scatter sunlight, for example, and cracked, dirty, or frosty windshields can scatter light from street lamps or headlights. Glare can be caused by reflective surfaces. Draft 2045 CAP measures and actions could facilitate projects that cause glare, including new building construction, rooftop or ground-mounted solar projects, or other infrastructure projects that include components that reflect light. Solar panels can be a cause of glare. Rooftop solar panels, however, generally would be unnoticeable from the ground but could be observed from elevated locations. Photovoltaic panels can result in reflection and glare depending on the time of the day, the angle of the sun, and other factors. However, photovoltaic panels are designed to absorb as much light as possible rather than to reflect it. Although the panels can result in some reflection or glare, the glare created by photovoltaic panels is generally considered to be less than that created by water or common building materials such as metal or glass (Shields 2010).

Nighttime lighting would mostly be limited to lighting from infill and mixed-use projects or safety lighting needed on larger-scale project sites, such as water recycling, waste treatment, or energy generation facilities. Projects facilitated by the Draft 2045 CAP measures and actions could be located in more urbanized areas developed with considerable existing sources of nighttime lighting, or in more rural locations, in compliance with state and local lighting requirements summarized above. Compliance with applicable requirements for nighttime lighting (including requirements of LA County's Dark Skies Ordinance within the Rural Outdoor Lighting District) would minimize projects' impacts on existing nighttime lighting conditions. Compliance with this component of the Zoning Ordinance would reduce the potential for projects in rural areas to result in a significant lighting impact. Utility-scale solar projects would be required to comply with the Renewable Energy Ordinance and all projects subject to a state or local discretionary authorization would be subject to site-specific, project-specific environmental review that would reduce significant impacts related to light and glare.

Nonetheless, improperly installed building lighting could result in a significant impact to those with a direct line of sight to the projects' areas and could be perceived as a slight glow on the horizon for others who cannot see the facilities directly. Even if non-reflective, non-glare finishes are used on all structures for projects facilitated by the Draft 2045 CAP, some glare associated with glass or metal of new buildings could occur on sunny days. Unless mitigated, a significant impact would result.

Mitigation Measure 3.2-3, Reduce Light and Glare Impacts: To reduce significant light and glare impacts of projects facilitated by the Draft 2045 CAP, LA County shall (and other implementing state or local agencies can and should) shall require the following measures to be incorporated: a) All lighting shall be focused toward the site and outdoor lighting shall be directed downward; b) The design of exterior light fixtures shall incorporate shielding to prevent glare and offsite light spillage; and c) Outdoor lighting shall include non-glare fixtures.

Significance after Mitigation: The impact would be less than significant. The implementation of Mitigation Measure 3.2-3, Reduce Light and Glare Impacts, would ensure that projects' lighting would not substantially intrude on daytime or nighttime views in the area because its provisions would substantially confine generated light to within project boundaries. Accordingly, with the implementation of Mitigation Measure 3.2-3, Impact 3.2-5 would be less than significant.

3.2.2.4 Cumulative Impacts

Criterion a)

For the purpose of analyzing cumulative impacts on aesthetics, the geographic scope is Countywide, inclusive of both incorporated and unincorporated areas. Cumulative impacts could result at various locations within this area from implementation of projects facilitated by the Draft 2045 CAP measures and actions that could introduce sources of light, new facilities, or modifications to existing facilities until the features of projects facilitated by the Draft 2045 CAP measures and actions are removed. Construction and operational activities and conditions for past, present, and reasonably foreseeable future projects, including projects implemented in accordance

with the Housing Element and other General Plan elements, with the Antelope Valley Area Plan (Los Angeles County 2015b) and other area plans, and with the Renewable Energy Ordinance and other municipal code requirements (see, for example, Los Angeles County 2009, 2015a, 2021a), would combine with the incremental impacts of the Project to cause or contribute to cumulative aesthetic conditions within Los Angeles County.

Impact 3.2-6: Projects facilitated by the Draft 2045 CAP would cause or contribute to a significant cumulative impact to scenic vistas. (*Significant and Unavoidable*)

Los Angeles County's scenic vistas are varied and dispersed. In locations where scenic vistas are of exceptionally high quality, such as in the Antelope Valley, the addition of incremental impacts from projects facilitated by Draft 2045 CAP measures and actions could be more likely to cause or make a cumulatively considerable contribution to a significant cumulative impact on scenic vistas. By contrast, in locations where the quality of scenic vistas is of lesser quality and more mundane, there is a decreased likelihood that projects facilitated by the Draft 2045 CAP measures and actions would cause or contribute to a significant cumulative impact on scenic vistas. Projects facilitated by the Draft 205 CAP would cause a cumulatively considerable contribution to significant cumulative impacts to scenic vistas for which no feasible mitigation is available.

Some projects facilitated by the Draft 2045 CAP measures and actions could be located in more rural or open areas of Los Angeles County, and therefore have the potential to result in greater visual contrast. Consistency with the General Plan and compliance with state and local requirements intended to protect scenic vistas would minimize potential impacts; however, the incremental impacts of the Project, together with the incremental impacts of past, present and reasonably foreseeable future projects, would result in a significant cumulative impact. The Project's contribution to this impact would be cumulatively considerable. No feasible mitigation measures have been identified that would reduce the Project's incremental contribution to a less than cumulatively considerable level. Cumulative impacts to scenic vistas would remain significant and unavoidable.

Mitigation: No feasible mitigation measures are available to reduce impacts.

Significance after Mitigation: Impacts would be significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b)

Impact 3.2-7: Projects facilitated by the Draft 2045 CAP would cause or contribute to significant cumulative impacts on views from a regional riding, hiking, or multiuse trail. (*Significant and Unavoidable*)

Implementation of the Draft 2045 CAP would cause or contribute to a significant cumulative impact on views from regional trails if future projects facilitated by Draft 2045 CAP measures and actions were located near other past, present, or reasonably foreseeable projects that have significant impacts on views from regional trails.

As analyzed under Impact 3.2-2, many of the projects facilitated by Draft 2045 CAP measures and actions would involve retrofits to buildings or development along urban corridors or infill areas. These types of projects are expected to involve small adjustments to visual character that are not expected to result in substantial changes to existing views from regional trails. Further, some projects would involve the preservation of open space and provision of regional walking and biking trails, which would likely result in beneficial impacts under this criterion. Other projects facilitated by Draft 2045 CAP measures and actions could be located in more rural or open areas of Los Angeles County, where their introduction could result in more visual contrast. Consistency with the General Plan, applicable area plan, LA County Code requirements established to protect aesthetic resources would minimize impacts on views from regional trails, but would not ensure that such impacts would be less than significant.

The Project's incremental contribution to cumulative impacts, in combination with the incremental impacts of other cumulative projects, would cause (or result in a cumulatively considerable contribution to) a significant cumulative impact on views from regional trails. The Project's contribution to this impact would be cumulatively considerable. The implementation of Mitigation Measure 3.2-1, *Alternative Design*, and Mitigation Measure 3.2-2, *Visual Screening and Other View Protection Measures*, would reduce the severity of the Project's incremental contribution to cumulative impacts, but would not ensure that the Project's contribution would be less than cumulatively considerable. Accordingly, this cumulative impact would remain significant and unavoidable. No additional feasible mitigation measures are available.

Mitigation: Implement Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2.

Significance after Mitigation: The impact would be significant and unavoidable. No additional feasible mitigation measures are available to reduce impacts.

Criterion c)

Impact 3.2-8: Projects facilitated by the Draft 2045 CAP would cause or contribute to a significant cumulative impact due to substantial cumulative damage to scenic resources, including, but not limited to, trees, rocks, outcropping, and historic building within a state scenic highway. (*Significant and Unavoidable*)

Implementation of the Draft 2045 CAP measures and actions could result in a cumulative impact on scenic resources within a designated state scenic highway (SR 2 and/or SR 27) if future projects facilitated by the Draft 2045 CAP measures and actions were located near other closely related past, present, and reasonably foreseeable future projects that affect resources within or adjacent to these designated scenic highways. As reflected by these roadways' designation as a state scenic highway, aesthetic resources within and adjacent to them are of exceptionally high quality. Thus, there is no significant adverse cumulative impact on such resources as a result of past projects.

Nonetheless, in combination with the incremental contributions of other closely related past present and reasonably foreseeable future projects that have been or may be approved within these state routes or within the areas to contribute to their eligibility for designation as a scenic

highway, the Project's incremental contribution could cause a significant cumulative impact to occur. The Project's contribution to this impact would be cumulatively considerable. The implementation of Mitigation Measure 3.2-1, *Alternative Design*, and Mitigation Measure 3.2-2, *Visual Screening and Other View Protection Measures*, would reduce the severity of the Project's incremental contribution relating to substantial damage to scenic resources within a state scenic highway but would ensure that, in combination with the incremental impacts of other projects, the resulting cumulative impact would be less than significant. Accordingly, even with the implementation of these mitigation measures, the Project's contribution to significant cumulative impact would remain significant and unavoidable. No additional feasible mitigation measures are available.

Mitigation: Implement Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2.

Significance after Mitigation: The impact would be significant and unavoidable. No additional feasible mitigation measures are available to reduce impacts.

Criterion d)

Impact 3.2-9: Projects facilitated by the Draft 2045 CAP would cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. (*Significant and Unavoidable*)

Los Angeles County's visual character is diverse, including both natural and built environments. Implementation of the Draft 2045 CAP measures and actions could result in a cumulative impact on visual character if future implementing projects were to be located near other cumulative projects that change or affect visual character. Past, present, and reasonably foreseeable future projects have been and would be developed in accordance with requirements of the Housing Element and other General Plan elements, the various area plans, the Renewable Energy, Hillside Management, and other LA County ordinances, and with the mitigation measures or conditions of approval imposed as part of project-specific CEQA and permitting processes. Nonetheless, the incremental impacts of the Project, in combination with the incremental contributions of other closely related past present and reasonably foreseeable future projects, could cause or contribute to a significant cumulative impact regarding the degradation of the existing visual character or quality of public views of the site and its surroundings as a result of the transformation of existing undeveloped landscape to a more industrial look and feel as would be associated with the development of a water recycling, waste management, or compost processing facility or with the development of utility-scale, ground-mounted renewable energy generation or infrastructure projects if proposed in more rural areas. The implementation of Mitigation Measure 3.2-1, *Alternative Design*, and Mitigation Measure 3.2-2, *Visual Screening and Other View Protection Measures*, would reduce the Project's incremental contribution to cumulative impacts, but would not ensure that the contribution would not be cumulatively considerable. Accordingly, with the implementation of these mitigation measures, this cumulative would be significant and unavoidable. No additional feasible mitigation measures are available.

Mitigation: Implement Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2.

Significance after Mitigation: The impact would be significant and unavoidable. No additional feasible mitigation measures are available to reduce impacts.

Criterion e)

Impact 3.2-10: Projects facilitated by the Draft 2045 CAP would not cause or contribute to a new source of substantial shadow, light or glare, which would result in a significant cumulative impact to views in the area. (*Less-than-Significant Cumulative Impact*)

Ongoing shadow, light, and glare impacts of past Countywide projects are summarized in the environmental setting. Closely related present and reasonably foreseeable future projects would be developed in accordance with requirements of the housing and other elements of the General Plan, various area plans, the Renewable Energy, Hillside Management, and other LA County ordinances, and with the mitigation measures or conditions of approval imposed as part of project-specific CEQA and permitting processes. The incremental contribution of projects facilitated by the Draft 2045 CAP could result in a cumulative impact related to shadow, light, or glare if one or more of the projects were to be located near other closely related past, present, and reasonably foreseeable future cumulative projects that are significant sources of light or glare. Pre-mitigation, the cumulative impact could be significant, and the Project's contribution to this impact could be cumulatively considerable. However, the implementation of Mitigation Measure 3.2-3, *Reduce Light and Glare Impacts*, would ensure that lighting associated with projects facilitated by the Draft 2045 CAP would not substantially intrude on daytime or nighttime views in the area because its provisions would substantially confine generated light to within project boundaries. Accordingly, with the implementation of Mitigation Measure 3.2-3, the Project's contribution to cumulative impacts would be less than cumulatively considerable, and therefore less than significant.

Mitigation: Implement Mitigation Measure 3.2-3.

Significance after Mitigation: Not cumulatively considerable and therefore less than significant.

3.3 Agriculture and Forestry Resources

This section identifies and evaluates agriculture and forestry resources issues to determine whether the Project would result in a significant impact related to the loss or conversion of agricultural resources (e.g., protected farmland, agricultural zoning, a designated Agricultural Resource Area, or Williamson Act contract) or forestry resources (e.g., forest land, timberland, or Timberland Production zoning). This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to agriculture and forestry resources request consideration of impacts from anticipated agricultural land and open space conversion due to future renewable energy projects facilitated by Draft 2045 CAP measures and actions.

3.3.1 Setting

3.3.1.1 Study Area

The study area for this analysis of impacts on agriculture and forestry resources consists of the area where the 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that composes the unincorporated area of the County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

Population growth and accompanying development in Los Angeles County has resulted in the conversion of agricultural land to nonagricultural uses. This process threatens agricultural land and has led to land use conflicts between existing farms and new residential developments that are being developed adjacent to existing agricultural areas. The remaining agricultural land is considered an important nonrenewable resource. Los Angeles County includes a relatively small quantity of land that is designated pursuant to the Farmland Mapping and Monitoring Program (FMMP), meaning that it meets one of the designations described in this section and therefore is “Important Farmland.” Approximately 90 percent of Los Angeles County’s Important Farmland is located in the Antelope Valley; the remainder is located in the Santa Clarita Valley, the Santa Monica Mountains, and the San Fernando Valley.

The study area for this analysis of impacts on agriculture and forestry resources includes Prime Farmland, Unique Farmland, and Farmland of Statewide Importance as designated pursuant to the FMMP, as well as forestland within the County’s unincorporated areas that is subject to LA County’s land use authority.

3.3.1.2 Environmental Setting

Agricultural Land Use

A variety of programs administered by the State of California and LA County classify and help protect agricultural lands in the County. The FMMP, administered by the state and described in Section 3.3.1.3, *Regulatory Setting*, identifies important areas of farmland based on soil types and land use history. Agriculture zoning in the County identifies areas under agricultural use or areas that could be developed with agricultural use and sets forth development regulations and allowable uses for areas in agricultural zones. LA County also designates agricultural areas where agriculture is encouraged and/or preserved by policies, development guidelines, and regulations.

Farmland Mapping and Monitoring Program-designated Farmland

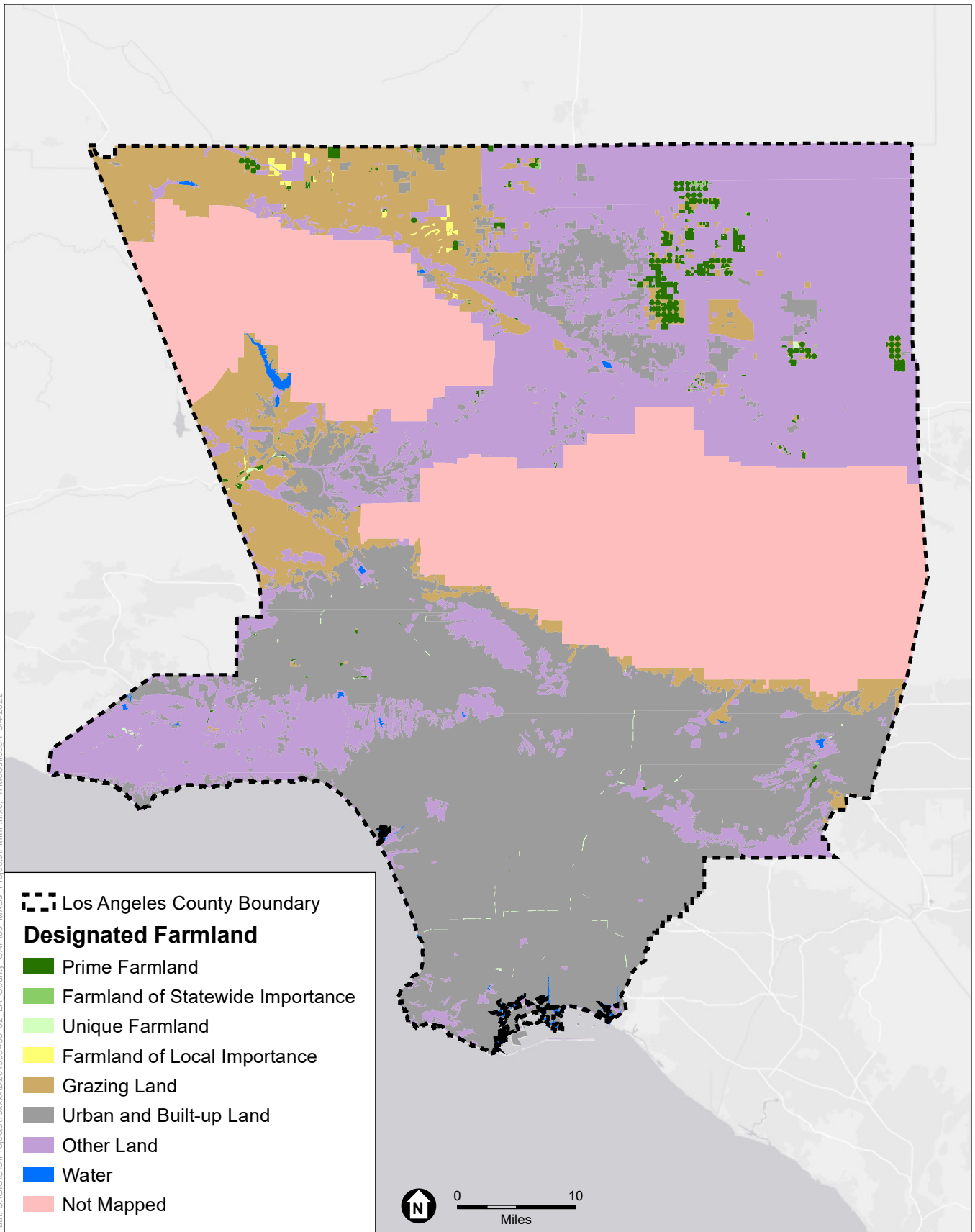
As part of the FMMP, the California Department of Conservation produces Important Farmland maps that assess the locations, quality, and quantity of agricultural lands in California on a county-by-county basis, as well as the conversion of these lands over time. The classification of Important Farmlands is based on land use and soil. Agricultural land is rated according to the soil quality and irrigation status, with the best-quality land called Prime Farmland. Maps are updated every two years by the U.S. Natural Resources Conservation Service (NRCS), part of the U.S. Department of Agriculture; current land use information is gathered from aerial photographs, a computer mapping system, public review, and field reconnaissance.

The FMMP maps approximately 47.9 million acres of land in 49 of California’s 58 counties. FMMP designations do not affect local land use decisions; rather, they are identification tools that local governments can use for policy purposes.

The acreages listed in this section represent data from the 2018 FMMP maps for Los Angeles County and include mapped Farmland in the unincorporated areas only.¹ Farmland as mapped by the FMMP can be found in roughly half of the County, excluding national forest land and the Los Angeles Basin, the San Gabriel Valley, and most of the eastern San Fernando Valley, which are categorized as Urban and Built-Up Land. See **Figure 3.3-1, *Farmland Mapping and Monitoring Program–Designated Farmland in Los Angeles County***, which shows the locations of designated Farmland as well as urban and built-up land, other land, water, and national forest land (which is labeled as “not mapped” for purposes of the California Department of Conservation’s Important Farmland maps). The FMMP maps identify the following Farmland types:

- (1) **Prime Farmland:** Prime Farmland has the most favorable combination of physical and chemical features, enabling it to sustain long-term production of agricultural crops. This land possesses the soil quality, growing season, and moisture supply needed to produce sustained high yields. To qualify for this classification, the land must have produced irrigated crops at some point during the two update cycles before NRCS mapping. The unincorporated County contains 16,969 acres of designated Prime Farmland (DOC 2019), which equates to approximately 1.00 percent of the unincorporated County’s total acreage and represents a reduction of 7,405 acres since the 2010 FMMP maps (County Planning 2014).

¹ Three other FMMP designations exist but are not used in Los Angeles County: Urban and Built-Up Land, Other Land, and Land Committed to Non-agricultural Use.



SOURCE: CDOC, 2018

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3.3-3 **Figure 3.3-1**
Farmland Mapping and Monitoring
Program-Designated Farmland in Los Angeles County

- (2) **Farmland of Statewide Importance:** Farmland of Statewide Importance is similar to Prime Farmland, but it possesses minor shortcomings, such as greater slopes and/or less ability to store moisture. To qualify for this classification, the land must have produced irrigated crops at some point during the two update cycles before NRCS mapping. The unincorporated County contains approximately 690 acres of designated Farmland of Statewide Importance, which equates to about 0.04 percent of the unincorporated County's total acreage and represents a reduction of 240 acres since the 2010 FMMP maps (County Planning 2014).
- (3) **Unique Farmland:** Unique Farmland is of lesser-quality soils and is used to produce the state's leading agricultural crops. Unique Farmland does not meet the previously stated criteria for Prime Farmland or Farmland of Statewide Importance, but it consists of areas that have been used for the production of specific crops with high economic value during the two update cycles before the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained, high-quality crops and/or high yields of a specific crop when treated and managed according to current farming methods. This land is usually irrigated, but it may include non-irrigated orchards or vineyards, as found in some climatic zones in California. Land must have been cropped sometime during the four years before the mapping date. The unincorporated County contains approximately 865 acres designated as Unique Farmland (DOC 2019), which is 0.05 percent of the unincorporated County's total acreage and represents a reduction of 66 acres since the 2010 FMMP maps (County Planning 2014).
- (4) **Farmland of Local Importance:** Farmland of Local Importance is important to the local agricultural economy, as determined in Los Angeles County by the LA County Board of Supervisors and a local advisory committee. LA County defines Farmland of Local Importance as lands that would meet the criteria for Prime Farmland or Farmland of Statewide Importance but are not irrigated. Approximately 2,739 acres of the unincorporated County are designated as Farmland of Local Importance (DOC 2019), which is 0.16 percent of the unincorporated County's total acreage and represents a reduction of 4,114 acres since the 2010 FMMP maps (County Planning 2014).
- (5) **Grazing Land:** Grazing Land is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres. Approximately 216,378 acres of the unincorporated County is designated as Grazing Land (DOC 2019), which is 12.76 percent of the unincorporated County's total acreage and represents an increase of 11,185 acres since the 2010 FMMP maps (County Planning 2014).

The quality of farmland in the County has shifted in the past several decades. For example, in the Antelope Valley, the highest value categories (Prime Farmland and Farmland of State Importance) have declined in size, while the lowest value categories (Farmland of Local Importance, Grazing Land, Urban and Built-Up Land, and Other Land) have expanded (Farr 2021).

Agricultural Zoning

The County has two agricultural zones: Light Agricultural (A-1) and Heavy Agricultural (A-2). Both agricultural zones allow for variety of uses. The A-1 zone allows the development of single-family residences and small group homes, community gardens, livestock, and agricultural uses, including the raising of cattle, horses, sheep, goats, poultry, birds, and earthworms.

The A-2 zone allows for a wider variety of agricultural and nonagricultural uses than the A-1 zone. Fruit and vegetable packing plants and oil wells are examples of heavier land uses that are allowed in A-2 but not in A-1. With a conditional use permit, the types of uses for agriculturally zoned land broaden, and can include uses such as airports, universities, and golf courses.

Electricity generation plants, including utility-scale, ground-mounted solar projects, are an allowed use in the A-2 zone with a conditional use permit outside Significant Ecological Areas and Economic Opportunity Areas (each of which is described in Section 3.3.1.3, *Regulatory Setting*). For example, of the 14 approved solar projects in the Antelope Valley, 12 are located in the A-2 zone; of the 12, three are sited on Prime Farmland (Farr 2021). Although solar projects in the Antelope Valley have been approved on agriculturally zoned land, they are taking place mostly on vacant, undeveloped land, not land that is historically, physically agricultural: Only one of the 14 approved projects is sited on what was previously farmland (Farr 2021).

As shown in **Table 3.3-1, *Distribution of Agricultural Zones by Planning Area***, most of the agriculturally zoned lands under the jurisdiction of the LA County Department of Regional Planning are found in the Antelope Valley (Farr 2021). In the Antelope Valley, existing uses of lands in the A-1 zone consist primarily of residential uses (64.41 percent), specifically mobile homes (37.25 percent) and single-family homes (26.35 percent). Irrigated farms make up 24.06 percent of the A-1 zone, specifically the Irrigated Farm category for “Desert” (22.69 percent). Government parcels make up 26 percent of the A-1 zone. By comparison, Lands in the A-2 zone in the Antelope Valley consist primarily of Irrigated Farm (75.21 percent), particularly land that falls under the category of Desert (69.49 percent), with residential land uses (18.96 percent) and government parcels (1.94 percent) making up the rest. Commercial, industrial, institutional, miscellaneous, and recreational physical land use categories each make up less than 1 percent of the A-1 and A-2 zones within the Antelope Valley (Farr 2021).

**TABLE 3.3-1
 DISTRIBUTION OF AGRICULTURAL ZONES BY PLANNING AREA**

Planning Area	Zone A-1 Light Agricultural	Zone A-2 Heavy Agricultural	Zones A-1 & A-2 All Agricultural
Antelope Valley Planning Area	50.01%	84.34%	79.57%
Coastal Islands Planning Area	0.00%	0.00%	0.00%
East San Gabriel Valley Planning Area	13.72%	0.78%	2.58%
Gateway Planning Area	1.48%	0.47%	0.61%
Metro Planning Area	0.29%	0.00%	0.04%
San Fernando Valley Planning Area	1.75%	3.73%	3.46%
Santa Clarita Valley Planning Area	17.57%	10.35%	11.35%
Santa Monica Mountains Planning Area	13.32%	0.16%	1.99%
South Bay Planning Area	0.46%	0.00%	0.06%
West San Gabriel Valley Planning Area	1.04%	0.00%	0.15%
Westside Planning Area	0.35%	0.17%	0.19%
TOTAL	100.00%	100.00%	100.00%

SOURCE: Farr 2021: Table 7

Agricultural Resource Areas

Agricultural Resource Areas (ARAs) are identified in the General Plan and the Antelope Valley Area Plan. A key purpose of this designation is to encourage preservation and sustainable uses of agricultural land, agricultural activities, and compatible uses within these areas. The following land types are ARAs:

- Prime Farmland
- Farmland of Statewide Importance
- Farmland of Local Importance
- Unique Farmland
- Lands that have received permits from the LA County Agricultural Commissioner/Weights and Measures

The ARAs are within the Antelope Valley Planning Area and Santa Clarita Valley Planning Area. The following land uses and LA County land use designations are not considered for the ARA designation and are not part of any existing ARAs:

- Significant Ecological Areas
- Approved specific plans
- Approved large-scale renewable energy facilities
- Land outside of the Santa Clarita Valley and Antelope Valley planning areas
- Lands designated as Public and Semi-Public land uses

Williamson Act Contract Lands

The purpose of a Williamson Act contract is to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. The only Williamson Act contract lands in Los Angeles County are located on Santa Catalina Island; those lands are held by the Catalina Island Conservancy and set aside for open space and recreational purposes.

Forest Resources

Forest land is defined in the California Public Resources Code (Section 12220[g]) as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetic, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. *Timberland* is considered land that is available for and capable of growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees (Public Resources Code Section 4526).

Within the unincorporated areas of the County, Angeles National Forest, coupled with a small portion of Los Padres National Forest, encompasses 650,000 acres. Angeles National Forest extends along the San Gabriel Mountains and is divided into two sections totaling 1,018 square miles, which equates to approximately 25 percent of the County's land area. The U.S. Forest

Service is responsible for managing public forest lands, However, nearly 40,000 acres of the national forests are privately owned. These privately owned areas are commonly referred to as *in-holdings*, and LA County retains responsibility for their land use regulation. The County also includes small areas of forest outside of the National Forests. These consist primarily of smaller areas in the Santa Monica Mountains, the Sierra Pelona, and areas of the San Gabriel Mountains adjacent to Angeles National Forest. Forest lands within the County are generally zoned Open Space (O-S) and Watershed (W) zones.

The majority of Angeles National Forest is composed of chaparral, rather than forest. The forests in the County are limited and generally consist of small stands of trees growing in riparian areas and in the higher elevations of the San Gabriel Mountains. Because of the limited amount of forest resources, there is no timberland in the County.

3.3.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Farmland Protection Policy Act

The U.S. Department of Agriculture administers the Farmland Protection Policy Act of 1981. The act discourages federal activities that would convert farmland to nonagricultural purposes and assures to the extent possible that federal programs are administered to be compatible with state, local government, and private programs and policies to protect farmland. For purposes of the act, *farmland* includes land defined as prime, unique, or farmlands of statewide or local importance as well as forest land, pastureland, or cropland; it does not include water or urban built-up land. Projects are subject to Farmland Protection Policy Act requirements if they could irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency (NRCS 2022).

Federal agency representatives of projects that have the potential to convert farmland to non-farm use coordinate with their local office of the NRCS or U.S. Department of Agriculture Service Center. The NRCS uses a land evaluation and site assessment (LESA) system to establish a farmland conversion impact rating score on proposed sites of federally funded and assisted projects. The resulting score is used as an indicator for the project sponsor to consider alternative sites if the potential adverse impacts on the farmland exceed the recommended allowable level. The LESA system, as adopted for use in California, is described further below.

Agricultural Improvement Act of 2018

The Agricultural Improvement Act of 2018 (sometimes called the “2018 Farm Bill”) was approved in 2018 and remains in effect through 2023. It builds upon and continues to implement many of the crucial programs that serve agricultural producers. The U.S. Department of Agriculture is charged with implementing this law, which reauthorized previous programs to serve producers now while they seek public input for future programs. The 2018 Farm Bill continued funding for major programs but did include some changes to NRCS programs, such as expanding support to producers who address significant natural resources concerns by adopting

conservation practices and activities. All major conservation programs are continued, although some have been modified (USDA 2022).

State Laws, Regulations, and Policies

California Public Resources Code

Section 4526 of the California Public Resources Code defines *timberland* as land (other than land owned by the federal government and land designated by the county board of supervisors as experimental forest land) that is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species are determined by the county board of supervisors on a district basis after consultation with district committees and others.

According to Section 12220(g) of the California Public Resources Code, *forest land* refers to “land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.”

California Civil Code Section 3482.5 (Right to Farm Act)

The Right to Farm Act is designed to protect commercial agricultural operations from nuisance complaints that may arise when an agricultural operation is conducting business in a “manner consistent with proper and accepted customs.” The law specifies that established operations that have been in business for three or more years that were not nuisances at the time they began shall not be considered a nuisance as a result of a new land use.

Farmland Mapping and Monitoring Program

As noted above, the FMMP produces maps and statistical data used for analyzing impacts on California’s agricultural resources. For the purposes of this environmental analysis, the term *Farmland* refers to the FMMP map categories *Prime Farmland*, *Unique Farmland*, and *Farmland of Statewide Importance* (hereafter collectively referred to as “Farmland”). Generally, any conversion of land from one of these categories to a lesser quality category or a nonagricultural use would be considered an adverse impact. These map categories are defined in Section 3.3.1.2, *Environmental Setting*.

California Land Conservation Act (Williamson Act)

The Williamson Act of 1965 provides an incentive to retain prime agricultural land and open space in agricultural use, thereby slowing its conversion to urban and suburban development. The program requires a 10-year contract between the county where the subject land is located and the landowner. While subject to contract, the land is taxed on the basis of its agricultural use rather than its market value. The land becomes subject to certain enforceable restrictions, and certain conditions need to be met prior to approval of an agreement. The goal of the Williamson Act is to protect agriculture and open space. The only Williamson Act contract lands in Los Angeles County are located on Santa Catalina Island and are preserved for open space and recreational purposes.

California Government Code

California Government Code Section 51104(g) defines a *timberland production zone* as an area that has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. The LA County Code does not identify timberland production zones within the unincorporated portion of the County.

Regional and Local Laws, Regulations, and Policies

Los Angeles County General Plan 2035

The General Plan includes an implementing program to adopt an Agricultural Resources Areas Ordinance, the intent of which would be to encourage the retention and sustainable use of agricultural land for agricultural uses. Relevant agricultural resources policies set forth in the General Plan include protection of ARAs and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance from encroaching development. These policies also discourage incompatible land uses in areas adjacent to or within these farmland areas and encourage agricultural activity within ARAs (County Planning 2015a).

Antelope Valley Area Plan

The 2015 Antelope Valley Area Plan was adopted by the LA County Board of Supervisors on June 16, 2015 (County Planning 2015b). This plan sets forth specific goals, policies, land use and zoning maps, and other planning instruments to guide future development and preservation activities in the Antelope Valley Planning Area. The Conservation and Open Space Element of this plan contains policies related to agricultural resources. Relevant policies include limiting the amount of potential residential development in ARAs (shown on Map 4.3 of the Antelope Valley Area Plan) through appropriate land use designations with low densities; limiting incompatible uses in ARAs; requiring buffering and appropriate development standards where nonagricultural uses in ARAs are necessary to meet regional or community needs; supporting innovative agricultural business practices such as agricultural tourism by streamlining regulations; and supporting the use of alternative and renewable energy systems in conjunction with agricultural activities (County Planning 2015b). The Antelope Valley Area Plan also contains the ARA designations for the Antelope Valley.

Los Angeles County Code—Agricultural Zone

LA County Code Title 22, Chapter 22.24, Parts 1–4 regulate uses within the County’s agricultural zones, which include A-1, A-2, A-2-H, and Residential Agricultural (R-A). Chapter 22.24 of the LA County Code contains a list of allowable uses for each of these zones, allowable uses with director’s review and approval, and allowable uses with the appropriate permits, and a list of development standards (LA County Code, Chapter 22.24).

Los Angeles County Code—Watershed Zone

LA County Code Title 22, Chapter 22.20, Part 6 contains regulations for the W zone, one of two zones used for forest lands within the County. The purpose of the W zone, as defined in the LA County Code, is to “provide for conservation of water and other natural resources within a

watershed area and to protect areas subject to fire, flood, erosion or similar hazards” (LA County Code Section 22.40.240). This zone allows for limited recreational development of the land and necessary public facilities. Chapter 22.40, Part 6 contains a list of allowable uses for the W zone, allowable uses with director’s review and approval, and allowable uses with the appropriate permits, as well as a list of development standards.

Los Angeles County Code—Open Space Zone

LA County Code Title 22, Chapter 22.40, Part 9 contains regulations for the O-S zone, one of two zones used for forest lands within the County. The purpose of the O-S zone is to provide for the “preservation, maintenance and enhancement of the recreational, natural and environmental resources of this county as defined in the general plan” (LA County Code Section 22.40.440). Chapter 22.40, Part 9 contains a list of allowable uses for the O-S zone, allowable uses with director’s review and approval, and allowable uses with the appropriate permits, as well as a list of development standards.

3.3.2 Impact Analysis

3.3.2.1 Significance Criteria

To determine the level of significance of an identified impact, the following thresholds are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would have a significant impact on agriculture and forestry resources if it would:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use;
- b) Conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract;
- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104[g]);
- d) Result in the loss of forest land or conversion of forest land to non-forest use; or
- e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use.

3.3.2.2 Methodology

The analysis of agriculture and forestry resources in this section is based on a review of the project description and available literature from state and local agencies. The analysis focuses on the compatibility of the Draft 2045 CAP with existing agricultural uses and policies in the County and evaluating whether projects facilitated by Draft 2045 CAP measures and actions would result

in physical impacts on agriculture and forestry resources. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.3.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas (GHG) emissions in unincorporated areas of Los Angeles County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementing specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic (PV) projects and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of agriculture and forestry-related impacts. These and other relevant measures and actions include those actions associated with Strategy 9, Conserve Forests and Working Lands, and Strategy 10, Sequester Carbon and Implement Sustainable Agriculture. These measures and actions could result in a beneficial effect on agriculture and forestry resources.

By contrast, renewable energy and related infrastructure projects facilitated by some of the Draft 2045 CAP measures and actions could result in adverse impacts on agriculture and forestry resources via conversion. These include projects facilitated by Draft 2045 CAP measures and actions involving: (1) decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (2) the electrification of vehicles (e.g., Measure T6, Increase ZEV Market Share; Measure T7, Electrify LA County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (3) the electrification of buildings (Strategy 5, Decarbonize Buildings).

Specific agriculture and forestry impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use.

Impact 3.3-1: Projects facilitated by the Draft 2045 CAP would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use. (Significant and Unavoidable)

Projects facilitated by Draft 2045 CAP Strategy 9, Conserve Forests and Working Lands, and Strategy 10, Sequester Carbon and Implement Sustainable Agriculture, could facilitate projects that conserve agricultural lands (Measure A1) or implement regenerative agricultural practices (Measure A2), which would result in a beneficial effect on Farmland. For example, projects facilitated by Action A1.3 would preserve existing agricultural and farmlands, including those mapped in the County as Agricultural Opportunity Areas, and would expand adjoining areas to enlarge farmland area.

However, depending on the location, projects facilitated by GHG emissions reduction measures and actions in the Draft 2045 CAP that involve ground disturbance could result in the conversion of farmland to nonagricultural use. For most types of projects that may be proposed in furtherance of the Draft 2045 CAP's measures and actions, construction and improvements are anticipated to occur primarily in developed areas such as parking lots, at existing structures, and in urban areas near public transportation. However, other types of projects facilitated by Draft 2045 CAP measures and actions, such as utility-scale energy projects (solar energy generation, battery storage, substation, and related transmission infrastructure), could convert Farmland to nonagricultural use in the Antelope Valley, the Santa Clarita Valley, the Santa Monica Mountains, and the San Fernando Valley where Farmland has been designated. See Figure 3.3-1, which shows the locations of designated Farmland.

Elements of a utility-scale, structure-mounted solar PV facility that could be facilitated by the Draft 2045 CAP measures and actions may include, but would not be limited to, solar collector arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Utility-scale solar PV facilities could require development on hundreds of acres; therefore, if developed in rural areas of the Antelope Valley, these developments could have a substantial effect on Farmland. Substation upgrades to increase load capacity would most likely be contained within the existing substation fence line and would be regulated by the California Public Utilities Commission. Upgrades to existing transmission lines may also be required at specific tower locations, which could permanently disturb Farmland in the area where the work would occur.

Should future utility-scale renewable energy facilities be proposed on designated Farmland, they could convert agricultural use (rather than residential, governmental, or other allowable use of agricultural zoned lands) to a nonagricultural use. This impact would be significant.

In project-specific contexts for utility-scale, ground-mounted renewable energy facilities, LA County has required mitigation of the net acreage of lost Farmland at a 1:1 ratio through

various measures: purchase of agricultural conservation easements; purchase of credits from an established agricultural farmland mitigation bank; contribution of agricultural land or equivalent funding to an organization that provides for the preservation of Farmland in California; or participation in an agricultural land mitigation program adopted by LA County. However, efforts to preserve off-site farmland through agricultural or conservation easements, or via mitigation banks, reduce conversion impacts but do not offset the reduction in total mapped Farmland resulting from the implementation of a project. Therefore, the impact would remain significant. Nonetheless, mitigation actions described below could be taken to avoid or reduce the impacts of the conversion of mapped Farmland that actually is in physical agricultural use.

Mitigation Measure 3.3-1: Avoidance of Undeveloped Lands When Siting Utility-Scale Solar Development. To reduce the impacts of converting Farmland in physical use for agriculture to nonagricultural uses, LA County shall (and other implementing state or local agencies can and should) encourage renewable energy development on current and formerly contaminated lands, landfills, and mine sites when such development is consistent with General Plan and zoning requirements for the site.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1 would lessen the impact of the conversion of mapped Farmland to nonagricultural uses. However, this measure would not ensure that such conversion could be avoided. Accordingly, with implementation of Mitigation Measure 3.3-1, Impact 3.3-1 would be significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b) Whether the Project would conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract.

Impact 3.3-2: Projects facilitated by the Draft 2045 CAP would conflict with the existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract. (*Significant and Unavoidable*)

Agricultural Resource Areas include the following land types: Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Unique Farmland (which fall within the definition of Farmland, as analyzed above), and lands that have received permits from the LA County Agricultural Commissioner/Weights and Measures.

The Draft 2045 CAP is a policy document intended to reduce GHG emissions throughout the unincorporated County. The Draft 2045 CAP would not propose changes to the General Plan's land use designations that would directly require changes to zoning, nor does it include specific projects that would conflict with existing zoning.

Further, to help preserve existing agricultural lands, the Draft 2045 CAP includes Measure A1, Conserve Agricultural and Working Lands, Forest Lands, and Wildlands. Conserving and restoring agricultural and forest lands keeps carbon in the ground and provides a multitude of benefits, including maintaining biodiversity in Significant Ecological Areas and preserving the character of the unincorporated County's rural areas. Draft 2045 CAP Action A1.1 calls for the creation of agricultural easements to preserve agricultural lands, working lands, rangelands, and forestlands. Draft 2045 CAP Action A1.1 would create an agricultural easement program; create

a necessary ordinance to support the preservation of these lands; identify areas for easements; and develop a plan for creating easements.

Nonetheless, projects facilitated by Draft 2045 CAP measures and actions (especially if approved in the Antelope Valley, the Santa Clarita Valley, the Santa Monica Mountains, or the San Fernando Valley) could conflict with a designated Agricultural Resource Area. The potential for such impacts would be reduced by compliance with the requirements of Title 22 (Zoning Code) Chapter 22.16 (Agricultural, Open Space, Resort and Recreation, and Watershed Zones), which establishes the Light Agricultural Zone (A-1) and Heavy Agricultural Zone (A-2). These zones allow for a comprehensive range of agricultural and residential uses. As described in the context of criterion a), ground-mounted, utility-scale solar and other renewable energy projects facilitated by Draft 2045 CAP measures and actions could be approved on lands designated as Farmland, and so also in an Agricultural Resource Area. The development of a wastewater treatment plant, organic waste processing facility, or energy-related project in a designated Agricultural Resource Area would be a significant impact. Mitigation Measure 3.3-1 (identified above) would be implemented to reduce this significant impact.

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. The only Williamson Act contracts in effect in Los Angeles County are for land on Santa Catalina Island (County Planning 2015a), which would not be affected by projects facilitated by the Draft 2045 CAP.

Mitigation Measure: Implement Mitigation Measure 3.3-1.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1, Avoidance of Undeveloped Lands When Siting Utility-Scale Solar Development, would lessen impacts caused by a conflict with a designated Agricultural Resource Area, but would not ensure that no such conflict would occur. Accordingly, with implementation of Mitigation Measure 3.3-1, Impact 3.3-2 would be significant and unavoidable. No additional feasible mitigation measures are available.

Criterion c) Whether the Project would conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104[g]).

Impact 3.3-3: Projects facilitated by the Draft 2045 CAP would not conflict with the existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104[g]). (*Less-than-Significant Impact*)

There is no timberland in the unincorporated areas; therefore, neither the Draft 2045 CAP nor projects facilitated by the Draft 2045 CAP measures and actions would result in an adverse impact on timberland.

Regarding forestland, Draft 2045 CAP measures and actions do not propose changes to the General Plan's land use designations. The Draft 2045 CAP is a policy document that does not conflict with existing zoning for, or cause rezoning of, forest land. On the contrary, projects facilitated by Strategies 9 and 10 of the Draft 2045 CAP could result in a beneficial effect because they would conserve forest lands (Measure A1), conserve and restore natural forest lands through land acquisitions and conservation easements (Action A1.1), and create and implement a community-informed Urban Forest Management Plan that incorporates equitable urban forest practices (Action A3.1).

Nonetheless, projects facilitated by other Draft 2045 CAP measures and actions could conflict with existing zoning for, or cause rezoning of, forest land if they were to be approved in such areas. *Forest land* is defined as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits” (Public Resources Code Section 12220[g]).

Angeles National Forest and Los Padres National Forest encompass approximately 650,000 acres of land within unincorporated Los Angeles County. These forests occupy a large portion of Los Angeles County and support oak woodlands, black walnut, grey pine, and other native tree species (County Planning 2014; California Wilderness Coalition 2020). For example, 11 of California's 20 species of native oaks are found in Los Padres National Forest, including blue oak, valley oak, and California black oak. California shrub oak species, including leather oak and Nuttall's (“coastal”) scrub oak, are also found in Los Padres National Forest. (Los Padres ForestWatch 2013.)

However, forest land would not be suitable for many of the types of projects that would be facilitated by Draft 2045 CAP measures and actions. For example, generating solar energy requires access to sunlight. Forested areas do not provide that resource and would not be deforested to serve a solar energy generation use (which itself would run counter to another implementing action of the Draft 2045 CAP).

Additionally, private inholdings within the national forests have many owners, and these landowners do not necessarily own large contiguous parcels that would be conducive to development of a utility-scale, ground-mounted solar energy generation project. Except for the private inholdings, LA County has no land use authority to approve development proposed in national forests like Angeles National Forest and Los Padres National Forest. Instead, the U.S. Forest Service, which provides land use oversight in those locations, may authorize uses in national forests that benefit the general public and protect public and natural resources values. The construction of new private residences on national forest lands is prohibited by the Forest Reserve Act of 1891, and U.S. Forest Service land usually is not made available if the overall needs of an individual project proponent or business can be met on nonfederal lands (U.S. Forest Service 2013). LA County is not aware of any applications to develop future utility-scale renewable energy facility projects on Angeles National Forest or Los Padres National Forest lands, and determining whether the U.S. Forest Service would allow such development in the future would be speculative.

For these reasons, implementation of the Draft 2045 CAP measures and actions would not conflict with existing zoning of forest land, and this impact would be less than significant.

Mitigation: None required.

Criterion d) Whether the Project would result in the loss of forest land or conversion of forest land to non-forest use.

Impact 3.3-4: Projects facilitated by the Draft 2045 CAP would not result in the loss of forest land or conversion of forest land to non-forest use. (*Less-than-Significant Impact*)

As discussed in Impact 3.3-3, the Draft 2045 CAP is a policy document that would not directly result in the loss of forest land or conversion of forest land to non-forest use. On the contrary, projects facilitated by Strategies 9 and 10 of the Draft 2045 CAP could result in a beneficial effect because they would conserve forest lands (Measure A1), conserve and restore natural forest lands through land acquisitions and conservation easements (Action A1.1) and create and implement a community-informed urban forest management plan that would incorporate equitable urban forest practices (Action A3.1).

Nonetheless, Draft 2045 CAP measures and actions could facilitate projects that could result in the loss of forest land or the conversion of forest land to non-forest use. However, as discussed in the context of Impact 3.3-3 above, the risk of this occurrence is low. All of the forest land located in unincorporated areas (i.e., in Angeles National Forest and Los Padres National Forest), except for approximately 40,000 acres of private holdings, is outside of LA County's land use jurisdiction and would not likely be developed in the future with projects facilitated by Draft 2045 CAP measures and actions. Further, even if projects facilitated by the Draft 2045 CAP were approved on forest lands, the relatively minor acreage (approximately 40,000 acres) within LA County's land use jurisdiction would be protected by the facilitated projects' consistency with the General Plan and compliance with applicable provisions of the zoning code summarized in Section 3.3.1.3, *Regulatory Setting*. As a result, this impact would be less than significant.

Mitigation: None required.

Criterion e) Whether the Project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use.

Impact 3.3-5: Projects facilitated by the Draft 2045 CAP would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use. (*Significant and Unavoidable*)

As discussed in the context of Impacts 3.3-1 and 3.3-2, some projects facilitated by the Draft 2045 CAP could result in a beneficial effect on Farmland, while other projects (e.g., wastewater treatment plants, organic waste processing facilities, or energy-related projects on designated

Farmland) would cause a significant impact related to Farmland conversion. Such projects could cause other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use if, for example, they were to divide productive agricultural lands into less productive units for reasons of access, irrigation, or scale of production. If this land conversion were to occur, the impact would be significant. Mitigation Measure 3.3-1 (identified above) would be implemented to reduce this significant impact.

Mitigation Measure: Implement Mitigation Measure 3.3-1.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1, Avoidance of Undeveloped Lands When Siting Utility-Scale Solar Development, would lessen impacts related to the conversion of Farmland to utility-scale solar development (a nonagricultural use), but would not ensure that land in agricultural use would not be converted. Accordingly, with the implementation of Mitigation Measure 3.3-1, Impact 3.3-5 would be significant and unavoidable. No additional feasible mitigation measures are available.

Impact 3.3-6: Projects facilitated by the Draft 2045 CAP would not involve other changes in the existing environment which, due to their location or nature, could result in of forest land to non-forest use. (*Less-than-Significant Impact*)

As discussed in the context of Impacts 3.3-3 and 3.3-4, projects facilitated by the Draft 2045 CAP would not likely be proposed on forest land because the characteristics of forest land make it unsuitable for the implementation of many of the types of projects that would be facilitated by Draft 2045 CAP measures and actions. Even if projects facilitated by the Draft 2045 CAP were approved on forest lands, the relatively minor acreage (approximately 40,000 acres) within LA County's land use jurisdiction would be protected by the facilitated projects' consistency with the General Plan and compliance with applicable provisions of the zoning code summarized in Section 3.3.1.3, *Regulatory Setting*. The resulting impacts would be less than significant.

Mitigation: None required.

3.3.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts on agriculture and forestry resources, the geographic area of consideration includes unincorporated areas of the County that are designated as Farmland pursuant to the FMMP, land that is subject to a Williamson Act contract, and forest land in the unincorporated areas. Impacts could result at various locations in this area from the initiation of on-the-ground work in furtherance of a project facilitated by Draft 2045 CAP measures and actions until such projects are decommissioned and the sites restored.

Criterion a)

Impact 3.3-6: Projects facilitated by the Draft 2045 CAP would result in a significant cumulative impact related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use. (*Significant and Unavoidable*)

Projects facilitated by Draft 2045 CAP measures and actions, in combination with the incremental impacts of other closely related past, present, and reasonably foreseeable future projects (including projects proceeding consistent with existing General Plan and zoning requirements), would cause or contribute to a significant cumulative impact due to the conversion of mapped Farmland, including mapped Farmland in actual physical agricultural use, if they would occur in previously undeveloped areas. The Project's contribution to this impact would be cumulatively considerable. Mitigation Measure 3.3-1 (identified above) would be implemented to reduce this impact.

Mitigation Measure: Implement Mitigation Measure 3.3-1.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1, Avoidance of Undeveloped Lands When Siting Utility-Scale Solar Development, would lessen the Project's contribution to the significant cumulative impact. However, implementation of this measure would not ensure that the conversion of mapped Farmland could be avoided and would have no impact on the conversion of mapped Farmland for residential or other uses of that land consistent with General Plan and zoning provisions. Accordingly, even with implementation of Mitigation Measure 3.3-1, the Project's incremental contribution to the cumulative impact would be cumulatively considerable, and therefore, significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b)

Impact 3.3-7: Projects facilitated by the Draft 2045 CAP would result in a cumulative significant impact related to conflicts with existing zoning for agricultural use, or with a designated Agricultural Resource Area. (*Significant and Unavoidable*)

As described in the context of Impact 3.3-2, the only Williamson Act contract in Los Angeles County is on Santa Catalina Island and would not be affected by the implementation of projects facilitated by the Draft 2045 CAP. In any event, the Draft 2045 CAP includes measures to preserve agricultural lands, which would be consistent with the purpose of the Williamson Act; therefore, the Draft 2045 CAP would not affect a Williamson Act contract on a project-specific level.

Regarding designated Agricultural Resource Areas, the Draft 2045 CAP includes measures to preserve agricultural land, which has the potential to improve cumulative conditions with regard to agricultural zoning. Some projects implementing Draft 2045 CAP measures and actions—potentially utility-scale, ground-mounted energy-related projects—would not conflict with existing zoning for agricultural use (which allow for renewable energy uses with a conditional use permit), but would conflict with a designated Agricultural Resource Area if approved on designated Farmland. The incremental impacts of the Project in this regard could combine with the incremental impacts of other closely related past, present, and reasonably foreseeable future

projects (including projects that would proceed consistent with existing General Plan and zoning requirements) to cause or contribute to a significant cumulative impact. The Project's contribution to this impact would be cumulatively considerable. Mitigation Measure 3.3-1 (identified above) would be implemented to reduce this impact.

Mitigation Measure: Implement Mitigation Measure 3.3-1.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1, Avoidance of Undeveloped Lands When Siting Utility-Scale Solar Development, would lessen the Project's contribution to the significant cumulative impact, but would not ensure that a conflict with a designated Agricultural Resource Area would be avoided. Accordingly, even with implementation of Mitigation Measure 3.3-1, the Project's incremental contribution to the cumulative impact would be cumulatively considerable, and therefore, significant and unavoidable. No additional feasible mitigation measures are available.

Criterion c)

Impact 3.3-8: Projects facilitated by the Draft 2045 CAP would not conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. (No Cumulative Impact)

The Project could result in a cumulative impact on the zoning of forest land if a project implementing Draft 2045 CAP measures and actions were to conflict with the zoning of forest land and occur within the same time frame or geography as similar past, present, and reasonably foreseeable future cumulative projects located on forest land. LA County does not have existing zoning specific to forest use or timberland; it also does not have land use authority over development in national forests such as Angeles National Forest and Los Padres National Forest, where most of the County's forest land exists. As described above under Impact 3.3-3, the construction of new private residences in national forest lands is prohibited by the Forest Reserve Act of 1891, and U.S. Forest Service land usually is not made available if the overall needs of an individual project proponent or business can be met on nonfederal lands (U.S. Forest Service 2013).

LA County has no existing zoning specific to forest land and private projects are generally prohibited on national forest land. For this reason, the cumulative impact related to conflicts with zoning for forest land would not be significant, and the Project's incremental contribution to the cumulative impact would not be cumulatively considerable when taking into consideration similar past, present, and reasonably foreseeable future cumulative projects.

Mitigation: None required.

Criterion d)

Impact 3.3-9: Projects facilitated by the Draft 2045 CAP would not result in the loss of forest land or conversion of forest land to non-forest use. (Less-than-Significant Impact)

As described in the context of Impact 3.3-4, all of the land within the County that is considered forest land is located in Angeles National Forest and Los Padres National Forest. All of this land

is outside LA County’s land use jurisdiction except for approximately 40,000 acres of private inholdings. As described above, the construction of new private residences in National Forest lands is prohibited by the Forest Reserve Act of 1891, and U.S. Forest Service land usually is not made available if the overall needs of an individual project proponent or business can be met on nonfederal lands. Additionally, the Draft 2045 CAP includes measures intended to protect and conserve forest land, and forest lands generally would not be suitable for the implementation of Draft 2045 CAP measures and actions.

Although the potential exists for some development of the private inholdings as facilitated by the Draft 2045 CAP, the incremental impacts of the Project, together with the incremental impacts of other closely related past, present, and reasonably foreseeable future projects, would not cause or contribute to a significant cumulative impact, and the Project’s contribution to this impact would not be cumulatively considerable.

Mitigation: None required.

Criterion e)

Impact 3.3-10: Projects facilitated by the Draft 2045 CAP would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland. (*Significant and Unavoidable*)

As discussed in the context of Impact 3.3-5, some projects facilitated by the Draft 2045 CAP could cause other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use if, for example, they would divide productive agricultural lands into less productive units for reasons of access, irrigation, or scale of production. This incremental impact, together with the incremental impacts of other closely related past, present, and reasonably foreseeable future projects (including projects developed consistent with existing General Plan and zoning code provisions), would cause or contribute to a significant cumulative impact. The Project’s contribution to this impact would be cumulatively considerable. Mitigation Measure 3.3-1 (identified above) would be implemented to reduce this impact.

Mitigation Measure: Implement Mitigation Measure 3.3-1.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1, Avoidance of Undeveloped Lands When Siting Utility-Scale Solar Development, would lessen the Project’s cumulative contribution to conversion-related impacts, but would not ensure that other changes resulting in conversion would not occur. Accordingly, even with the implementation of Mitigation Measure 3.3-1, the Project’s incremental contribution to cumulative impacts would be cumulatively considerable and Impact 3.3-5 would be significant and unavoidable. No additional feasible mitigation measures are available.

3.4 Air Quality

This section identifies and evaluates issues related to air quality to determine whether the Project would result in a significant impact related to the applicable air quality plan, criteria pollutants, the exposure of sensitive receptors to air pollutants, or other emissions. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to air quality request consideration of dust-related impacts due to future renewable energy projects facilitated by the Draft 2045 CAP, including related health impacts like Valley Fever and asthma, and recommend a prohibition on gas-powered lawn and yard maintenance equipment (including mowers and blowers).

3.4.1 Setting

3.4.1.1 Study Area

The study area for this analysis of air quality impacts consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of Los Angeles County. The unincorporated areas are located in the South Coast Air Basin (SCAB) and the Mojave Desert Air Basin (MDAB). See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

3.4.1.2 Environmental Setting

Regional Air Quality

Los Angeles County spans two air basins: the SCAB in the metropolitan portion of the County and the MDAB in the northeast desert portion of the County.

The SCAB is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The SCAB consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside counties, in addition to the San Gorgonio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the SCAB, as it is a coastal plain with broad valleys and low hills. The SCAB lies in the semi-permanent high-pressure zone of the eastern Pacific Ocean. The usually mild climatological pattern is interrupted by periods of hot weather, winter storms, or Santa Ana winds.

The extent and severity of pollutant concentrations in the SCAB is a function of the area's natural physical characteristics (weather and topography) and man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and

topography all affect the accumulation and dispersion of pollutants throughout the SCAB, making it an area of high pollution potential. The SCAB's meteorological conditions, in combination with regional topography, are conducive to the formation and retention of ozone, a secondary pollutant that forms through photochemical reactions in the atmosphere. Thus, the greatest air pollution impacts throughout the SCAB typically occur from June through September. This condition generally is attributed to the emissions occurring in the SCAB, light winds, and shallow vertical atmospheric mixing. These factors reduce the potential for pollutant dispersion, causing elevated air pollutant levels. Pollutant concentrations in the SCAB vary with location, season, and time of day. Concentrations of ozone, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the SCAB and adjacent desert.

The MDAB includes the eastern half of Kern County, the northern part of Los Angeles County, most of San Bernardino County (except the southwest corner), and the eastern edge of Riverside County. It is separated from the SCAB, to its south, by the San Gabriel and San Bernardino Mountains. It is separated from the San Joaquin Valley, to the northwest, by the Tehachapi Mountains and the south end of the Sierra Nevada.

The MDAB is characterized by hot summers, cold winters, large diurnal ranges in temperature, low relative humidity, and irregular rainfall. The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB blow from out of the west and southwest, because of the proximity of the MDAB to the Pacific Ocean and the blocking nature of the Sierra Nevada to the north. Air masses, pushed onshore in Southern California by differential heating, are channeled through the MDAB. The MDAB is separated from the Southern California coastal and Central California valley regions by mountains (highest elevation approximately 10,000 feet above mean sea level), the passes of which form the main channels for these air masses.

During the summer, the MDAB is generally influenced by a Pacific subtropical high-pressure cell that sits off the coast to the west, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by when they reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south.

Criteria Pollutants

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, as a result of their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The following pollutants are regulated by the U.S. Environmental Protection Agency (USEPA) and are subject to emissions control requirements adopted by federal, state, and local regulatory agencies. These regulated air pollutants, known as *criteria air pollutants*, are ozone, nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), inhalable particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM₁₀), fine inhalable particulate matter with an aerodynamic diameter less than or equal to

2.5 microns in size (PM_{2.5}), and lead. These pollutants are referred to as criteria air pollutants as a result of the specific standards, or *criteria*, that have been adopted for them. Brief descriptions of the health effects of these criteria air pollutants are provided below.

Ozone

Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) in the presence of sunlight under favorable meteorological conditions, such as high temperature and stagnation episodes. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable.

According to the USEPA, ozone can cause the muscles in the airways to constrict potentially leading to wheezing and shortness of breath (USEPA 2018a). Ozone can make it more difficult to breathe deeply and vigorously; cause shortness of breath and pain when taking a deep breath; cause coughing and sore or scratchy throat; inflame and damage the airways; aggravate lung diseases such as asthma, emphysema and chronic bronchitis; increase the frequency of asthma attacks; make the lungs more susceptible to infection; continue to damage the lungs even when the symptoms have disappeared; and cause chronic obstructive pulmonary disease (USEPA 2018a).

Long-term exposure to ozone is linked to aggravation of asthma and is likely to be one of many causes of asthma development and long-term exposures to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children (USEPA 2018a). According to the California Air Resources Board (CARB), inhalation of ozone causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms and exposure to ozone can reduce the volume of air that the lungs breathe in and cause shortness of breath (CARB 2021h).

The USEPA states that people most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers. Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure (USEPA 2018a). According to CARB, studies show that children are no more or less likely to suffer harmful effects than adults; however, children and teens may be more susceptible to ozone and other pollutants because they spend nearly twice as much time outdoors and engaged in vigorous activities compared to adults. Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults and are less likely than adults to notice their own symptoms and avoid harmful exposures. Further research may be able to better distinguish between health effects in children and adults (CARB 2021h).

Volatile Organic Compounds

VOCs are organic chemical compounds of carbon and are not “criteria” pollutants themselves; however, they contribute with NO_x to form ozone, and are regulated to prevent the formation of ozone (USEPA 2017a). According to CARB, some VOCs are highly reactive and play a critical role in the formation of ozone, other VOCs have adverse health effects, and in some cases, VOCs can be both highly reactive and have adverse health effects. VOCs are typically formed from

combustion of fuels and/or released through evaporation of organic liquids, internal combustion associated with motor vehicle usage, and consumer products (e.g., architectural coatings) (CARB 2021i).

Nitrogen Dioxide and Nitrogen Oxides

NO_x is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include NO_2 and nitric oxide (NO). Ambient air quality standards have been promulgated for NO_2 , which is a reddish-brown, reactive gas. The principal form of NO_x produced by combustion is NO, but NO reacts quickly in the atmosphere to form NO_2 , creating the mixture of NO and NO_2 referred to as NO_x (CARB 2021j). Major sources of NO_x include emissions from cars, trucks and buses, power plants, and off-road equipment (USEPA 2016a).

The terms NO_x and NO_2 are sometimes used interchangeably. However, the term NO_x typically is used when discussing emissions, usually from combustion-related activities, and the term NO_2 typically is used when discussing ambient air quality standards. Where NO_x emissions are discussed in the context of the thresholds of significance or impact analyses, the discussions are based on the conservative assumption that all NO_x emissions would oxidize in the atmosphere to form NO_2 .

According to the USEPA, short-term exposures to NO_2 can potentially aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms (such as coughing, wheezing, or difficulty breathing), hospital admissions and visits to emergency rooms while longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections (USEPA 2016a). According to CARB, controlled human-exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics. In addition, a number of epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk from exposure to NO_2 because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration while in adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease.

CARB states that much of the information on distribution in air, human exposure and dose, and health effects is specifically for NO_2 and there is only limited information for NO and NO_x , as well as large uncertainty in relating health effects to NO or NO_x exposure (CARB 2021j).

Carbon Monoxide

CO is primarily emitted from combustion processes and motor vehicles due to the incomplete combustion of fuel, such as natural gas, gasoline, or wood, with the majority of outdoor CO emissions from mobile sources (CARB 2021k). According to the USEPA, breathing air with a high concentration of CO reduces the amount of oxygen that can be transported in the blood stream to critical organs like the heart and brain and at very high levels, which are possible indoors or in other enclosed environments, CO can cause dizziness, confusion, unconsciousness and death.

Very high levels of CO are not likely to occur outdoors; however, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease because these people already have a reduced ability for getting oxygenated blood to their hearts and are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart, accompanied by chest pain also known as angina (USEPA 2016b).

According to CARB, the most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress; inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB 2021k).

Sulfur Dioxide

According to the USEPA, the largest source of SO₂ emissions in the atmosphere is the burning of fossil fuels by power plants and other industrial facilities, while smaller sources of SO₂ emissions include industrial processes such as extracting metal from ore; natural sources such as volcanoes; and locomotives, ships and other vehicles and heavy equipment that burn fuel with a high sulfur content (USEPA 2018b). In 2006, California phased-in the ultra-low-sulfur diesel regulation limiting vehicle diesel fuel to a sulfur content not exceeding 15 parts per million, down from the previous requirement of 500 parts per million, substantially reducing emissions of sulfur from diesel combustion (CARB 2004).

According to the USEPA, short-term exposures to SO₂ can harm the human respiratory system and make breathing difficult (USEPA 2018b). According to CARB, health effects at levels near the state one-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath and chest tightness, especially during exercise or physical activity and exposure at elevated levels of SO₂ (above 1 part per million [ppm]) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality (CARB 2021d). Children, the elderly, and those with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most likely to experience the adverse effects of SO₂ (CARB 2021d; USEPA 2018b).

Particulate Matter (PM₁₀ and PM_{2.5})

Particulate matter air pollution is a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye while other particles are so small that they can only be detected using an electron microscope. Particles are defined by their diameter for air quality regulatory purposes: inhalable particles with diameters that are generally 10 micrometers and smaller (PM₁₀); and fine inhalable particles with diameters that are generally 2.5 micrometers and smaller (PM_{2.5}) (USEPA 2018c). Thus, PM_{2.5} is a portion or a subset of PM₁₀.

Sources of PM₁₀ emissions include dust from construction sites, landfills and agriculture, wildfires and brush/waste burning, industrial sources, and wind-blown dust from open lands. Sources of PM_{2.5} emissions include combustion of gasoline, oil, diesel fuel, or wood. PM₁₀ and PM_{2.5} may be either directly emitted from sources (primary particles) or formed in the atmosphere through chemical reactions of gases (secondary particles) such as SO₂, NO_x, and certain organic compounds.

According to CARB, both PM₁₀ and PM_{2.5} can be inhaled, with some depositing throughout the airways. PM₁₀ is more likely to deposit on the surfaces of the larger airways of the upper region of the lung, while PM_{2.5} is more likely to travel into and deposit on the surface of the deeper parts of the lung, which can induce tissue damage, and lung inflammation. Short-term (up to 24 hours duration) exposure to PM₁₀ has been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits. The effects of long-term (months or years) exposure to PM₁₀ are less clear, although studies suggest a link between long-term PM₁₀ exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer (WHO and IARC 2015). Short-term exposure to PM_{2.5} has been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days and long-term exposure to PM_{2.5} has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children (WHO and IARC 2015).

According to CARB, populations most likely to experience adverse health effects with exposure to PM₁₀ and PM_{2.5} include older adults with chronic heart or lung disease, children, and asthmatics and children and infants are more susceptible to harm from inhaling pollutants such as PM₁₀ and PM_{2.5} compared to healthy adults because they inhale more air per pound of body weight than do adults, spend more time outdoors, and have developing immune systems (CARB 2021n).

Lead

Major sources of lead emissions include ore and metals processing, piston-engine aircraft operating on leaded aviation fuel, waste incinerators, utilities, and lead-acid battery manufacturers. In the past, leaded gasoline was a major source of lead emissions; however, the removal of lead from gasoline has resulted in a decrease of lead in the air by 98 percent between 1980 and 2014.

Lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system, and affects the oxygen carrying capacity of blood (USEPA 2017b). The effects most commonly encountered in current populations are neurological effects in children, such as behavioral problems and reduced intelligence, anemia, and liver or kidney damage. Excessive lead exposure in adults can cause reproductive problems in men and women, high blood pressure, kidney disease, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain (CARB 2021o).

Other Criteria Pollutants (California Only)

The California ambient air quality standards (CAAQS) regulate the same criteria pollutants as the national ambient air quality standards (NAAQS) as well as state-identified criteria pollutants, including sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride (CARB 2021a). With respect to the state-identified criteria pollutants (i.e., sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride), the Draft 2045 CAP would either not emit them (i.e., hydrogen sulfide and vinyl chloride), or they would be accounted for as part of the pollutants estimated in this analysis (i.e., sulfates and visibility reducing particles). For example, visibility reducing particles are associated with particulate matter emissions and sulfates are associated with sulfur oxides (SO_x) emissions. Both particulate matter and SO_x are included in the emissions estimates for the Project. A description of the health effects of the state-identified criteria air pollutants is provided below.

Sulfates

Sulfates in the environment occur as a result of sulfur dioxide (SO₂) being converted to sulfate compounds in the atmosphere where sulfur is first oxidized to SO₂ during the combustion process of sulfur containing, petroleum-derived fuels (e.g., gasoline and diesel fuel). Exposure to sulfates, which are part of PM_{2.5}, results in health effects similar to those from exposure to PM_{2.5} including reduced lung function, aggravated asthmatic symptoms, and increased risk of emergency department visits, hospitalizations, and death in people who have chronic heart or lung diseases. Population groups with higher risks of experiencing adverse health effects with exposure to sulfates include children, asthmatics, and older adults who have chronic heart or lung diseases (CARB 2021e).

Hydrogen Sulfide

Hydrogen sulfide is a colorless gas with a strong odor of rotten eggs. The most common sources of hydrogen sulfide emissions are oil and natural gas extraction and processing, and natural emissions from geothermal fields. Industrial sources of hydrogen sulfide include petrochemical plants and kraft paper mills. Hydrogen sulfide is also formed during bacterial decomposition of human and animal wastes, and is present in emissions from sewage treatment facilities and landfills.

Exposure to hydrogen sulfide can induce tearing of the eyes and symptoms related to overstimulation of the sense of smell, including headache, nausea, or vomiting; additional health effects of eye irritation have only been reported with exposures greater than 50 ppm, which is considerably higher than the odor threshold. Hydrogen sulfide is regulated as a nuisance based on its odor detection level; if the standard were based on adverse health effects, it would be set at a much higher level. According to CARB, there are insufficient data available to determine whether or not some groups are at greater risk than others (CARB 2021d).

Visibility-Reducing Particles

Visibility-reducing particles come from a variety of natural and manmade sources and can vary greatly in shape, size and chemical composition. Visibility reduction is caused by the absorption and scattering of light by the particles in the atmosphere before it reaches the observer. Certain

visibility-reducing particles are directly emitted to the air such as windblown dust and soot, while others are formed in the atmosphere through chemical transformations of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of particulate matter. As the number of visibility-reducing particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range. Exposure to some haze-causing pollutants have been linked to adverse health impacts similar to PM₁₀ and PM_{2.5} (CARB 2021g).

Vinyl Chloride

Vinyl chloride is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products and are generally emitted from industrial processes and other major sources of vinyl chloride have been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents. Short-term health effects of exposure to high levels of vinyl chloride in the air include central nervous system effects, such as dizziness, drowsiness, and headaches while long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage and has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans. Most health data on vinyl chloride relate to carcinogenicity; thus, the people most at risk are those who have long-term exposure to elevated levels, which is more likely to occur in occupational or industrial settings; however, control methodologies applied to industrial facilities generally prevent emissions to the ambient air (CARB 2021f).

Toxic Air Contaminants

In addition to criteria pollutants, the South Coast Air Quality Management District (SCAQMD) periodically assesses levels of toxic air contaminants (TACs) in the SCAB. A TAC is defined by Health and Safety Code Section 39655:

“Toxic air contaminant” means an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. [United States Code] § 7412(b)) is a toxic air contaminant.

Diesel particulate matter, which is emitted in the exhaust from diesel engines, was listed by the State of California as a toxic air contaminant in 1998. Most major sources of diesel emissions, such as ships, trains, and trucks operate in and around ports, railyards, and heavily traveled roadways. These areas often are located near highly populated areas resulting in greater health consequences for urban areas than rural areas (CARB 2021c). Diesel particulate matter has historically been used as a surrogate measure of exposure for all diesel exhaust emissions. Diesel particulate matter consists of fine particles (fine particles have a diameter less than 2.5 micrometers), including a subgroup of ultrafine particles (ultrafine particles have a diameter less than 0.1 micrometer). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics. The visible emissions in diesel exhaust include carbon particles or “soot.” Diesel exhaust also contains a variety of harmful gases and cancer-causing substances.

Exposure to diesel particulate matter may be a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Diesel particulate matter levels and resultant potential health effects may be higher in proximity to heavily traveled roadways with substantial truck traffic or near industrial facilities. According to CARB, diesel particulate matter exposure may lead to the following adverse health effects: aggravated asthma, chronic bronchitis, increased respiratory and cardiovascular hospitalizations, decreased lung function in children, lung cancer, and premature deaths for people with heart or lung disease (CARB 2008, 2021b).

In August 2021, the SCAQMD released the Final Multiple Air Toxics Exposure Study V (MATES V) (SCAQMD 2021a). The MATES V study includes a fixed-site monitoring program with ten stations, an updated emissions inventory of TACs, and a modeling effort to characterize risk across the SCAB. The purpose of the fixed-site monitoring is to characterize long-term regional air toxics levels in residential and commercial areas.

In addition to new measurements and updated modeling results, several key updates were implemented in MATES V. First, MATES V estimates cancer risks by taking into account multiple exposure pathways, which includes inhalation and non-inhalation pathways. This approach is consistent with how cancer risks are estimated in SCAQMD's programs such as permitting, Air Toxics Hot Spots (Assembly Bill [AB] 2588), and CEQA. Previous MATES studies quantified the cancer risks based on the inhalation pathway only. Second, along with cancer risk estimates, MATES V includes information on the chronic noncancer risks from inhalation and non-inhalation pathways for the first time.

Cancer risks and chronic noncancer risks from MATES II through IV measurements have been reexamined using current Office of Environmental Health Hazard Assessment and California Environmental Protection Agency risk assessment methodologies and modern statistical methods to examine the trends over time. This has led to a reduction of the SCAB average air toxics cancer risk from 997 in a million in MATES IV to 455 in a million in MATES V (SCAQMD 2021b).

The key takeaways from the MATES V study (SCAQMD 2021c):

- Air toxics cancer risk has decreased by about 50 percent since MATES IV based on modeling data.
- MATES V basin average multi-pathway air toxics cancer risk is 455 in a million, with the highest risk locations being in the Los Angeles International Airport, downtown, and ports areas.
- Diesel particulate matter is the main risk driver for air toxics cancer risk.
- Goods movement and transportation corridors have the highest air toxics cancer risks.
- The chronic non-cancer risk was estimated for the first time with a chronic hazard index of approximately 5 to 9 across all 10 fixed stations.

The MDAQMD does not publish health risk estimates for areas within its jurisdiction.

Airborne Fungus (Valley Fever)

Coccidioidomycosis, commonly referred to as *San Joaquin Valley Fever* or *Valley Fever*, is one of the most studied and oldest known fungal infections. Valley Fever most commonly affects people who live in hot dry areas with alkaline soil and varies with the season. This disease, which affects both humans and animals, is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis*.

Coccidioides immitis spores are found in the top few inches of soil. The cocci fungus lives as a saprophyte in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus "blooms" and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-moving activities and become airborne.

Agricultural workers, construction workers, and other people who work outdoors and who are exposed to wind and dust are more likely to contract Valley Fever. Children and adults whose hobbies or sports activities expose them to wind and dust also are more likely to contract Valley Fever. After the fungal spores have settled in the lungs, they change into a multicellular structure called a spherule. Fungal growth in the lungs occurs as the spherule grows and bursts, releasing endospores, which then develop into more spherules.

Approximately 60 percent of Valley Fever cases are mild and display flu-like symptoms or no symptoms at all. Of those who are exposed and seek medical treatment, the most common symptoms include fatigue, cough, loss of appetite, rash, headache, and joint aches. In some cases, painful red bumps may develop on the skin. Because these symptoms are not unique to Valley Fever and also may be caused by other illnesses, identifying and confirming this disease requires specific laboratory tests, such as the following (Valley Fever Center for Excellence 2022):

- Microscopic identification of the fungal spherules in infected tissue, sputum or body fluid sample.
- Growing a culture of *Coccidioides immitis* from a tissue specimen, sputum, or body fluid.
- Detection of antibodies (serological tests specifically for Valley Fever) against the fungus in blood serum or other body fluids.
- Administering the Valley Fever Skin Test (called coccidioidin or spherulin), which indicate prior exposure to the fungus.

The highest incidence rate within California occurs in Kern County within the San Joaquin Valley Air Basin, with 2,790 annual cases reported for the period ending February 28, 2022. Within Los Angeles County, there were 1,484 annual reported cases for the period ending February 28, 2022 (CDPH 2022).¹

Valley Fever is not contagious, and therefore cannot be passed on from person to person. Most of those who are infected recover without treatment within six months and thereafter have a lifelong immunity to the fungal spores. In severe cases, especially in those patients with rapid and

¹ The data presented may change as a result of delays inherent to case reporting, laboratory reporting, and epidemiologic investigation.

extensive primary illness, those who are at risk for dissemination of disease, and those who have disseminated disease, antifungal drug therapy is used.

The type of medication used and the duration of drug therapy are determined by the severity of disease and response to the therapy. The medications used include ketoconazole, itraconazole, and fluconazole in chronic, mild-to-moderate disease, and amphotericin B, given intravenously or inserted into the spinal fluid, for rapidly progressive disease. Although these treatments are often helpful, evidence of disease may persist and years of treatment may be required (Valley Fever Center for Excellence 2022). Approximately 60 percent of people infected are asymptomatic and do not seek medical attention. In the remaining 40 percent, symptoms range from mild to severe. A small percentage, less than 1 percent, die as a result of the disease (VCAPCD 2003).

Local Air Quality

CARB maintains a website with technical information on all of monitoring stations operated throughout the state (CARB 2021m). Within the County, 21 monitoring stations measure ambient pollutant concentrations. Criteria pollutants monitored vary by station and may include ozone, NO₂, CO, SO₂, PM₁₀, PM_{2.5}, and hydrogen sulfide. The locations of these stations were chosen to meet monitoring objectives, which call for stations that monitor the highest pollutant concentrations, representative concentrations in areas of high population density, the impact of major pollution emissions sources, and general background concentration levels.

Table 3.4-1, Ambient Air Quality Monitoring Summary—South Coast Air Basin, summarizes the number of days the NAAQS or CAAQS were exceeded and the maximum pollutant levels during such exceedances. The data show that the County regularly exceeds the state one-hour and state and federal eight-hour ozone standards and the federal PM_{2.5} standard within the last five recorded years. The NO₂ standards have not been exceeded in the last five years in the SCAB.

Table 3.4-2, Ambient Air Quality Monitoring Summary—Mojave Desert Air Basin, summarizes the number of days the NAAQS or CAAQS were exceeded and the maximum pollutant levels during such exceedances. The data show that the County regularly exceeds the state one-hour and the state and federal eight-hour ozone standards and the federal PM_{2.5} standard within the last five recorded years. The NO₂ standards have not been exceeded in the last five years in Los Angeles County with the exception of two days in 2016.

Sensitive Receptors

Sensitive receptors are land uses or people considered to be more sensitive than others to air pollutants. The reasons for greater than average sensitivity include preexisting health problems, proximity to emissions sources, or duration of exposure to air pollutants. Residences, schools, hospitals, convalescent homes, and parks are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

**TABLE 3.4-1
 AMBIENT AIR QUALITY MONITORING SUMMARY—SOUTH COAST AIR BASIN**

Pollutant / Standard	Number of Days Thresholds Were Exceeded and Maximum Levels during Such Exceedances				
	2016	2017	2018	2019	2020
Ozone (O₃)					
State 1-Hour ≥ 0.09 ppm	70	81	63	73	104
State 8-Hour ≥ 0.07 ppm	108	117	113	109	141
Federal 8-Hour ≥ 0.07 ppm	106	116	113	111	145
Max 1-Hour Concentration (ppm)	0.163	0.158	0.142	0.137	0.185
Max 8-Hour Concentration (ppm)	0.122	0.136	0.125	0.118	0.140
Nitrogen Dioxide (NO₂)					
State 1-Hour ≥ 0.18 ppm	0	0	0	0	0
Max 1-Hour Concentration (ppb)	95	115	90	97	101
Fire Particulates (PM_{2.5})					
Federal 24-Hour ≥ 35 µg/m ³	10	18	17	12	28
Max 24-Hour Concentration (µg/m ³)	58.8	85.4	103.8	81.3	175.0

NOTES: µg/m³ = micrograms per cubic meter; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller;
 ppb = parts per billion; ppm = parts per million.
 SOURCE: CARB 2022a

**TABLE 3.4-2
 AMBIENT AIR QUALITY MONITORING SUMMARY—MOJAVE DESERT AIR BASIN**

Pollutant / Standard	Number of Days Thresholds Were Exceeded and Maximum Levels during Such Exceedances				
	2016	2017	2018	2019	2020
Ozone (O₃)					
State 1-Hour ≥ 0.09 ppm	34	47	39	21	28
State 8-Hour ≥ 0.07 ppm	103	103	129	75	89
Federal 8-Hour ≥ 0.07 ppm	98	99	123	72	85
Max 1-Hour Concentration (ppm)	0.132	0.156	0.126	0.119	0.130
Max 8-Hour Concentration (ppm)	0.110	0.119	0.107	0.090	0.101
Nitrogen Dioxide (NO₂)					
State 1-Hour ≥ 0.18 ppm	2	0	0	0	0
Max 1-Hour Concentration (ppb)	223	61	59	59	62
Fire Particulates (PM_{2.5})					
Federal 24-Hour ≥ 35 µg/m ³	3	0	3	0	23
Max 24-Hour Concentration (µg/m ³)	64.8	27.2	40.4	34.1	125.4

NOTES: µg/m³ = micrograms per cubic meter; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller;
 ppb = parts per billion; ppm = parts per million
 SOURCE: CARB 2022a

3.4.1.3 Regulatory Setting

A number of statutes, regulations, plans, and policies have been adopted that address air quality concerns. The Draft 2045 CAP, once approved, would be subject to air quality regulations developed and implemented at the federal, state, and local levels. At the federal level, the USEPA is responsible for implementation of the federal Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile-source requirements and other requirements) are implemented directly by the USEPA. Other portions of the CAA (e.g., stationary-source requirements) are implemented through delegation of authority to state and local agencies. A number of plans and policies have been adopted by various agencies that address air quality concerns. Those plans and policies that are relevant to the Project are discussed below.

Federal Laws, Regulations, and Policies

The federal CAA (United States Code Title 42, Section 7401), as amended, is the comprehensive federal law that regulates air emissions to protect public health and welfare (USEPA 2021a). The USEPA is responsible for the implementation and enforcement of the CAA, which establishes federal NAAQS, specifies future dates for achieving compliance, and requires USEPA to designate areas as attainment, nonattainment, or maintenance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for each criteria pollutant for which the state has not achieved the applicable NAAQS. The SIP includes pollution control measures that demonstrate how the standards for those pollutants will be met. The sections of the CAA most applicable to the Draft 2045 CAP include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions) (USEPA 2017c).²

Title I requirements are implemented for the purpose of attaining NAAQS for criteria air pollutants. **Table 3.4-3, *Ambient Air Quality Standards***, shows the NAAQS currently in effect for each criteria pollutant. The NAAQS and their California equivalent (CAAQS) for state criteria air pollutants (discussed below) have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including against decreased visibility and damage to animals, crops, vegetation, and buildings (USEPA 2021b). In addition to criteria pollutants, Title I includes air toxics provisions that require USEPA to develop and enforce regulations to protect the public from exposure to airborne contaminants that are known to be hazardous to human health. In accordance with Section 112, USEPA establishes National Emission Standards for Hazardous Air Pollutants. The list of hazardous air pollutants, or air toxics, includes specific compounds that are known or suspected to cause cancer or other serious health effects.

² *Mobile sources* include on-road vehicles (e.g., cars, buses, motorcycles) and non-road vehicles (e.g., aircraft, trains, construction equipment). *Stationary sources* consist of both point and area sources. *Point sources* are stationary facilities that emit large amount of pollutants (e.g., municipal waste incinerators, power plants). *Area sources* are smaller stationary sources that alone are not large emitters, but combined can account for large amounts of pollutants (e.g., consumer products, residential heating, dry cleaners).

**TABLE 3.4-3
 AMBIENT AIR QUALITY STANDARDS**

Pollutant	Average Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}	Method ^g
Ozone (O ₃) ^h	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Nitrogen Dioxide (NO ₂) ⁱ	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemi- luminescence	100 ppb (188 µg/m ³)	None	Gas Phase Chemi- luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		53 ppb (100 µg/m ³)	Same as Primary Standard	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	None	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—		
Sulfur Dioxide (SO ₂) ^j	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotome- try (Pararosaniline Method) ⁹
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ^j	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ^j	—	
Particulate Matter— PM ₁₀ ^k	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
Particulate Matter— PM _{2.5} ^k	24 Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³ k	15 µg/m ³	
Lead ^{l,m}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ^m	Same as Primary Standard	
	Rolling 3-Month Average ^m	--		0.15 µg/m ³		

TABLE 3.4-3 (CONTINUED)
AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}	Method ^g
Visibility-Reducing Particles ⁿ	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of 10 miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates (SO ₄)	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ^l	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

NOTES:

µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; PM₁₀ = inhalable particles with diameters that are generally 10 micrometers and smaller; ppm = parts per million

- a. California's standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equalled or exceeded. California ambient air quality standards are listed in the Table of Standards in California Code of Regulations Title 17, Section 70200.
- b. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
- c. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- d. Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board (CARB) to give equivalent results at or near the level of the air quality standard may be used.
- e. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- f. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- g. Reference method as described by the U.S. Environmental Protection Agency (USEPA). An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.
- h. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- i. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- j. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
- k. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³.
- l. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- m. The national standard for lead was revised on October 15, 2008 to a rolling three-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- n. In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: CARB 2016

Title II requirements pertain to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emissions standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for nitrogen oxides (NO_x) emissions have been made more stringent to reduce the amount of emissions allowed. See Section 3.9, *Greenhouse Gas Emissions*, which discusses the most recently proposed federal motor vehicle tailpipe emissions standards. Notable federal actions include:

- *Revocation of the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule*: On March 14, 2022, the USEPA published its Notice of Decision to restore California’s waiver, which allows California to set more stringent vehicle fuel efficiency standards, rescinding the SAFE Vehicles Rule (*Federal Register* Volume 87, page 14332).
- *Issuance of the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards*: The issuance of these standards revises the GHG standards for vehicles from model year 2023 through model year 2026 and establishes the most stringent GHG standards ever set for the light-duty vehicle sector, which are expected to result in average fuel economy label values of 40 miles per gallon, while the standards they replace (the SAFE rule standards) would achieve only 32 miles per gallon in model year 2026 vehicles (USEPA 2021c).

State Laws, Regulations, and Policies

California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. The CAAQS are established to protect the health of the most sensitive groups and apply to the same criteria pollutants as the federal Clean Air Act and also includes state-identified criteria pollutants, which are sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride (CARB 2021a). CARB has primary responsibility for ensuring the implementation of the California Clean Air Act, responding to the federal CAA planning requirements applicable to the state, and regulating emissions from motor vehicles and consumer products within the state.

California Air Resources Board

CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets the CAAQS (see Table 3.4-1), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California’s SIP, for which it works closely with the federal government and the local air districts. The SIP is required for the state to take over implementation of the federal CAA from USEPA.

On-Road Equipment, Trucks, and Buses

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) limiting heavy-duty diesel motor vehicle idling to reduce public exposure to diesel PM and other TACs (California Code of Regulations Title 13, Section 2485 [13 CCR Section 2485]). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given time.

In 2008, CARB approved the Truck and Bus regulation to reduce NO_x, PM₁₀, and PM_{2.5} emissions from existing diesel vehicles operating in California (13 CCR Section 2025). The requirements were amended to apply to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating greater than 14,000 pounds. For the largest trucks in the fleet, those with a gross vehicle weight rating greater than 26,000 pounds, all must be equipped with diesel particulate filters from 2014 and onward and must have 2010 model year engines by January 1, 2023. For trucks and buses with a gross vehicle weight rating of 14,001–26,000 pounds, those with engine model years 14–20 years or older must be replaced with 2010 model year engines in accordance with the schedule specified in the regulation.

Off-Road Equipment

In addition to limiting exhaust from idling trucks, CARB promulgated emissions standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation, adopted by the CARB on July 26, 2007, aims to reduce emissions by the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emissions-controlled models (13 CCR Section 2449).

Each fleet must demonstrate compliance through one of two methods. The first option is to calculate and maintain fleet average emissions targets, which encourages the retirement or repowering of older equipment and rewards the introduction of newer cleaner units into the fleet. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies on a certain percentage of its total fleet horsepower. The compliance schedule requires that BACT turn overs or retrofits (Verified Diesel Emission Control Strategies installation) be fully implemented by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

Light- and Medium-Duty Vehicles

In 2012, CARB approved the Advanced Clean Cars Program, which includes low-emission vehicle and zero-emission vehicle regulations that reduce criteria pollutants and greenhouse gas (GHG) emissions from light- and medium-duty vehicles (CARB 2022b). See Section 3.5, *Greenhouse Gas Emissions*, which discusses the state light- and medium-duty vehicle emissions standards.

Diesel Commercial Vehicle Idling and Engine Regulations

As stated in 13 CCR Section 2485, idling by all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction is limited to five minutes at any location. In addition, 17 CCR

Section 93115 of the regulations states that operations of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards.

Nuisance Regulations

Health and Safety Code Section 41700 states, “a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.” This section also applies to objectionable odors.

Toxic Air Contaminants

The California Air Toxics Program was established to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and the Office of Environmental Health Hazard Assessment determine whether a substance should be formally identified, or “listed,” as a TAC in California. The SCAQMD has not adopted guidance applicable to land use projects that requires quantitative health risk assessments to be performed for construction exposures to TAC emissions.

In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on the results of that review, CARB has promulgated a number of ATCMs, both for mobile and stationary sources. As discussed above, in 2004, CARB adopted an ATCM to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to DPM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given time.

In addition to limiting exhaust from idling trucks, as discussed above, CARB promulgated emission standards for off-road diesel construction equipment such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation, adopted by CARB on July 26, 2007, aims to reduce emissions by the installation of diesel particulate filters and encouraging the replacement of older, dirtier engines with newer emission-controlled models.

The AB 1807 program is supplemented by the AB 2588 Air Toxics “Hot Spots” program, which requires facilities to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks if present. Facilities that pose a significant health risk to the community must reduce their risk through implementation of a risk management plan.

Regional and Local Laws, Regulations, and Policies

While CARB is responsible for the regulation of mobile emissions sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing

standards and regulating stationary sources. SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SCAB, and the Antelope Valley Air Quality Management District (AVAQMD) is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the Los Angeles portion of the MDAB. The metropolitan portions of the County are within the SCAB under the jurisdiction of the SCAQMD, and the desert portions of the County lie within the MDAB under the jurisdiction of the AVAQMD. The SCAQMD and the AVAQMD are discussed below.

South Coast Air Quality Management District

The SCAQMD is primarily responsible for planning, implementing, and enforcing air quality standards for the SCAB, which includes all of Orange County, Los Angeles County (excluding the Antelope Valley portion), the western, non-desert portion of San Bernardino County, and the western Coachella Valley and San Gorgonio Pass portions of Riverside County. The SCAB is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB is a subregion within the western portion of the SCAQMD jurisdiction. While air quality in the SCAB has improved, the SCAB requires continued diligence to meet the air quality standards.

Air Quality Management Plan

The SCAQMD has adopted air quality management plans (AQMPs) to meet the CAAQS and NAAQS. Most recently, SCAQMD has initiated the development of the 2022 AQMP to address the attainment of the 2015 8-hour ozone standard (70 parts per billion [ppb]) for the SCAB and Coachella Valley. The SCAB is classified as an “extreme” nonattainment area and the Coachella Valley is classified as a “severe-15” nonattainment area for the 2015 Ozone NAAQS (SCAQMD 2016a). In 2021, SCAQMD and CARB established Mobile Source Working Groups to support the development of mobile-source strategies. SCAQMD also established Residential and Commercial Buildings Working Groups to support the development of control measures.

The SCAQMD Governing Board adopted the 2016 AQMP on March 3, 2017 (SCAQMD 2017). CARB approved the 2016 AQMP on March 23, 2017 (CARB 2017). Key elements of the 2016 AQMP include implementing fair-share emissions reductions strategies at the federal, state, and local levels; establishing partnerships, funding, and incentives to accelerate deployment of zero and near-zero-emissions technologies; and taking credit from co-benefits from GHG emissions, energy, transportation, and other planning efforts (SCAQMD 2017). The strategies included in the 2016 AQMP build on the strategies from the previous 2012 AQMP and are intended to demonstrate attainment of the NAAQS, which are set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including against decreased visibility and damage to animals, crops, vegetation, and buildings, for the federal nonattainment pollutants ozone and PM_{2.5} while accounting for regional growth, increasing development, and maintaining a healthy economy. In general, SCAQMD’s criteria for evaluating control strategies for stationary and mobile sources is based on the following: (1) cost effectiveness; (2) emissions reduction potential; (3) enforceability; (4) legal authority; (5) public acceptability; (6) rate of emission

reduction; and (7) technological feasibility. The 2016 AQMP includes both stationary- and mobile-source emission reductions from traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile-source strategies, and reductions from federal sources (SCAQMD 2017).

As detailed in the AQMP, the major sources of air pollution in SCAB are divided into four major source classifications: point, and area stationary sources, and on-road and off-road mobile sources. Point and area sources are the two major subcategories of stationary sources (SCAQMD 2017). Point sources are permitted facilities that contain one or more emission sources at an identified location (e.g., power plants, refineries, emergency generator exhaust stacks). Area sources consist of many small emission sources (e.g., residential water heaters, architectural coatings, consumer products, restaurant charbroilers and permitted sources such as large boilers) which are distributed across the region. Mobile sources consist of two main subcategories: On-road sources (such as cars and trucks) and off-road sources (such as heavy construction equipment).

South Coast Air Quality Management District Air Quality Guidance Documents

SCAQMD's *CEQA Air Quality Handbook* (SCAQMD 1993) provides local governments with guidance for analyzing and mitigating project-specific air quality impacts, including standards, methodologies, and procedures for conducting air quality analyses in EIRs. The Handbook was used extensively in the preparation of this analysis. SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends that lead agencies avoid using the screening tables in Chapter 6 (Determining the Air Quality Significance of a Project) and the on-road mobile-source emission factors in Table A9-5-J1 through A9-5 of the *CEQA Air Quality Handbook* because they are outdated (SCAQMD 2022).

The SCAQMD instead recommends using other approved models to calculate emissions from land use projects (SCAQMD 2022). Examples of such other models include the CalEEMod software, which is a model developed for California Air Pollution Control Officers Association in collaboration with the California air districts (CAPCOA 2021). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify criteria pollutant and GHG emissions from a variety of land use projects.

The SCAQMD has also adopted land use planning guidelines in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, which considers impacts to sensitive receptors from facilities that emit TAC emissions (SCAQMD 2005). SCAQMD's general land use siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity to freeways and high-traffic roads, a 1,000-foot siting distance for sensitive land uses proposed in proximity to a major service and maintenance rail yard, and the same siting criteria for distribution centers and dry-cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

The SCAQMD has published a guidance document called the *Final Localized Significance Threshold Methodology* for CEQA evaluations that is intended to provide guidance when evaluating the localized impacts from mass emissions during construction (SCAQMD 2008). The SCAQMD adopted additional guidance regarding PM_{2.5} emissions in a document called *Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds* (SCAQMD 2006). This latter document has been incorporated by the SCAQMD into its CEQA significance thresholds and *Final Localized Significance Threshold Methodology*.

SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates the requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities (SCAQMD 2016b).

South Coast Air Quality Management District Rules and Regulations

The SCAQMD has adopted many rules and regulations to regulate sources of air pollution in the SCAB and to help achieve air quality standards. A list of rules and regulations relevant to this analysis follows.

Regulation IV—Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events.

Rule 401—Visible Emissions: This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.

Rule 402—Nuisance: This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Rule 403—Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the Project property line, restricts the net PM₁₀ emissions to less than 50 micrograms per cubic meter (µg/m³) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering or using nontoxic chemical stabilizers to prevent the generation of visible dust plumes, limiting vehicle speeds to 15 miles per hour on unpaved surfaces, and/or ceasing all activities. Finally, a contingency plan may be required if so determined by USEPA.

Rule 410—Odors from Transfer Stations and Material Recovery Facilities: The purpose of this rule is to establish odor management practices and requirements to reduce odors from municipal solid waste transfer stations and material recovery facilities.

Rule 431.2—Sulfur Content of Liquid Fuels: This rule limits the sulfur content in diesel and other liquid fuels for the purpose both of reducing the formation of SO_x and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the SCAQMD. The rule also affects diesel fuel supplied for mobile-source applications.

Rule 442—Usage of Solvents: The purpose of this rule is to reduce emissions of VOCs from VOC-containing materials or equipment not subject to the VOC limits in any Regulation XI rule. The rule sets VOC emission limits for facilities subject to the rule.

Rule 445—Wood Burning Devices: This rule reduces the emission of particulate matter from woodburning devices and establish contingency measures for applicable ozone standards for the reduction of VOCs. Per Rule 445, no person shall permanently install a wood-burning device into any new development.

Regulation XI—Source Specific Standards: Regulation XI sets emissions standards for specific sources.

Rule 1107—Coating of Metal Parts and Products: This rule sets VOC emissions limits from the coating of metal parts and products and applies to all metal coatings operations with certain exceptions as defined in the rule.

Rule 1110.2—Emissions from Gaseous- and Liquid-Fueled Engines: This rule applies to stationary and portable engines rated at greater than 50 horsepower. The purpose of Rule 1110.2 is to reduce NO_x, VOCs, and CO emissions from engines. Emergency engines, including those powering standby generators, are generally exempt from the emissions and monitoring requirements of this rule because they have permit conditions that limit operation to 200 hours or less per year as determined by an elapsed operating time meter.

Rule 1113—Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1121—Control of Nitrogen Oxides from Residential Type, Natural Gas-Fired Water Heaters: This rule specifies NO_x emission limits for natural gas-fired water heaters, with heat input rates less than 75,000 British thermal units per hour.

Rule 1133—Composting and Related Operations—General Administrative Requirements: This rule sets forth administrative requirements for existing and new chipping and grinding activities and composting operations. The purpose of this rule is to create an emissions-related informational database on composting and related operations through a registration process.

Rule 1133.2—Emission Reductions from Co-Composting Operations: The purpose of this rule is to reduce VOC and ammonia emissions from co-composting operations.

Rule 1133.3—Emission Reductions from Greenwaste Composting Operations: The purpose of this rule is to reduce fugitive emissions of VOC and ammonia occurring during greenwaste composting operations.

Rule 1138—Control of Emissions from Restaurant Operations: This rule specifies particulate matter and VOC emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat.

Rule 1146.1—Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural gas-fired boilers, steam generators, and process heaters as defined in this rule.

Rule 1146.2—Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.

Rule 1171—Solvent Cleaning Operations: The purpose of this rule is to reduce emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting or global-warming compounds from the use, storage and disposal of solvent cleaning materials in solvent cleaning operations and activities. A solvent cleaning operation is solvent cleaning conducted as part of a business.

Rule 1186—PM₁₀ Emissions from Paved and Unpaved Roads, and Livestock Operations: This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM₁₀ emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Regulation XIV—Toxics and Other Non-Criteria Pollutants: Regulation XIV sets requirements for new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants or other non-criteria pollutants.

Rule 1401 and Rule 1402—New Source Review of Toxic Air Contaminants and Control of Toxic Air Contaminants from Existing Sources: SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates the requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

Rule 1403—Asbestos Emissions from Demolition/Renovation Activities: This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

Rule 1470—Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines: This rule applies to stationary compression

ignition engines greater than 50 brake horsepower, such as emergency generators, and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing.

Attainment Status

Table 3.4-4, *South Coast Air Basin Attainment Status (Los Angeles County)*, shows the attainment status of the Los Angeles County portion of the SCAB for each criteria pollutant. As shown in Table 3.4-4, the Los Angeles County portion of the SCAB is designated under federal or state ambient air quality standards as nonattainment for ozone, PM₁₀, and PM_{2.5}. The Los Angeles County portion of the SCAB is designated as nonattainment for the federal lead standard; however, this was due to localized emissions from two lead-acid battery recycling facilities in the city of Vernon and the city of Industry that are no longer operating (SCAQMD 2005).

**TABLE 3.4-4
 SOUTH COAST AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY)**

Pollutant	National Standards (NAAQS)	California Standards (CAAQS)
Ozone (1-hour standard)	N/A	Non-attainment–Extreme
Ozone (8-hour standard)	Non-attainment–Extreme	Non-attainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
PM ₁₀	Attainment	Non-attainment
PM _{2.5}	Non-attainment–Serious	Non-attainment
Lead	Non-attainment (Partial) ^b	Attainment
Visibility-Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride ^c	N/A	N/A

NOTES:

CAAQS = California ambient air quality standard; N/A = not applicable; NAAQS = national ambient air quality standard; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; PM₁₀ = inhalable particles with diameters that are generally 10 micrometers and smaller

- a. The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.
- b. Partial Non-attainment designation—Los Angeles County portion of the South Coast Air Basin only for near-source monitors.
- c. In 1990, the California Air Resources Board (CARB) identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, CARB does not monitor or make status designations for this pollutant.

SOURCE: USEPA 2021d

Antelope Valley Air Quality Management District

The AVAQMD covers the western portion of the MDAB and has jurisdiction over the northern, desert portion of the County, including the incorporated cities of Lancaster and Palmdale, Air Force Plant 42, and the southern portion of Edwards Air Force Base (AVAQMD 2016). The AVAQMD operates monitoring stations in the Antelope Valley, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The AVAQMD is the regional agency

responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the Antelope Valley region of the MDAB.

Antelope Valley Air Quality Management District Air Quality Management Plan

The AVAQMD has a variety of air quality management and attainment plans that include control measures and strategies to be implemented to attain the CAAQS and NAAQS in the Antelope Valley. The AVAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

AVAQMD air quality management and attainment plans include the following (AVAQMD 2017):

- 2004 State and Federal Ozone Attainment Plan
- 2006 8-hour Ozone Reasonably Available Control Technology—State Implementation Plan (RACT SIP) Analysis
- 2008 Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)
- 2014 Supplement to the 8-hour Ozone RACT SIP Analysis
- 2015 8-hour RACT SIP Analysis³
- 2017 Federal 75 ppb Ozone Attainment Plan⁴

Antelope Valley Air Quality Management District Rules and Regulations

AVAQMD rules and regulations applicable to this analysis include:

Rule 401—Visible Emissions: This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.

Rule 402—Nuisance: This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Rule 403—Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the Project property line, restricts the net PM₁₀ emissions to less than 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Control measures may include adding freeboard to haul vehicles,

³ This document builds upon the 2006 and 2014 versions of the RACT SIP Analyses and combined represent a current and complete RACT SIP Analysis.

⁴ This document replaces or updates all previously submitted federal ozone plans in the AVAQMD.

covering loose material on haul vehicles, watering or using nontoxic chemical stabilizers to prevent the generation of visible dust plumes, limiting vehicle speeds to 15 miles per hour on unpaved surfaces, and/or ceasing all activities. Finally, a contingency plan may be required if so determined by USEPA.

Rule 431.2—Sulfur Content of Liquid Fuels: This rule limits the sulfur content in diesel and other liquid fuels for the purpose both of reducing the formation of SO_x and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the AVAQMD. The rule also affects diesel fuel supplied for mobile-source applications.

Rule 442—Usage of Solvents: The purpose of this rule is to reduce emissions of VOCs from VOC-containing materials or equipment not subject to the VOC limits in any Regulation XI rule. The rule sets VOC emission limits for facilities subject to the rule.

Rule 1107—Coating of Metal Parts and Products: This rule sets VOC emissions limits from the coating of metal parts and products and applies to all metal coatings operations with certain exceptions as defined in the rule.

Rule 1113—Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1121—Control of Nitrogen Oxides from Residential Type, Natural Gas-Fired Water Heaters: This rule specifies NO_x emission limits for natural gas-fired water heaters, with heat input rates less than 75,000 British thermal units per hour.

Rule 1133—Composting and Related Operations: The purpose of this rule is to limit emissions of VOCs and ammonia from composting and related operations; prevent inadvertent decomposition occurring during chipping and grinding operations; and create an emissions-related informational database on composting and related operations through administrative requirements as part of a composting registration program.

Rule 1146.1—Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural gas-fired boilers, steam generators, and process heaters as defined in this rule.

Rule 1171—Solvent Cleaning Operations: The purpose of this rule is to reduce emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting or global-warming compounds from the use, storage and disposal of solvent cleaning materials in solvent cleaning operations and activities. A solvent cleaning operation is solvent cleaning conducted as part of a business.

Rule 1186—PM₁₀ Emissions from Paved and Unpaved Roads, and Livestock Operations: This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM₁₀ emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Rule 1401 and Rule 1402—New Source Review of Toxic Air Contaminants and Control of Toxic Air Contaminants from Existing Sources: SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates the requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

Rule 1403—Asbestos Emissions from Demolition/Renovation Activities: This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

Attainment Status

Table 3.4-5, Mojave Desert Air Basin Attainment Status (Los Angeles County), shows the attainment status in the AVAQMD for each criteria pollutant. As shown in Table 3.4-5, the Los Angeles County portion of the MDAB is designated under federal and state ambient air quality standards as nonattainment for ozone and state nonattainment for PM₁₀.

**TABLE 3.4-5
MOJAVE DESERT AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY)**

Pollutant	National Standards (NAAQS)	California Standards (CAAQS)
Ozone (1-hour standard)	N/A	Non-attainment
Ozone (8-hour standard)	Non-attainment–Severe ^b	Non-attainment
Carbon Monoxide	Unclassified/Attainment	Attainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified/Attainment	Attainment
PM ₁₀	Unclassified/Attainment	Non-attainment
PM _{2.5}	Unclassified/Attainment ^c	Unclassified
Lead	Unclassified/Attainment	Attainment
Visibility-Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride ^d	N/A	Unclassified

NOTES:

CAAQS = California ambient air quality standard; N/A = not applicable; NAAQS = national ambient air quality standard; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; PM₁₀ = inhalable particles with diameters that are generally 10 micrometers and smaller

- The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.
- West Mojave Desert (Los Angeles County) portion of the basin, where the Draft 2045 CAP would apply, is designated severe nonattainment.
- The measures and actions set forth in the Draft 2045 CAP would be implemented in an area designated unclassified/attainment in the West Mojave Desert (Los Angeles County) portion of the basin.
- In 1990, the California Air Resources Board (CARB) identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, CARB does not monitor or make status designations for this pollutant.

SOURCES: AVAQMD 2021; CARB 2021p; USEPA 2021d.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial counties, and addresses regional issues related to transportation, the economy, community development and the environment. SCAG is the federally designated metropolitan planning organization (MPO) for the majority of the Southern California region and is the largest MPO in the nation.

Pursuant to Health and Safety Code Section 40460, SCAG is responsible for preparing and approving the portions of the AQMP related to regional demographic projections and integrated regional land use, housing, employment and transportation programs, measures and strategies (SCAQMD 2017). Regarding transportation planning, SCAG adopted the *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016–2040 RTP/SCS)* in April 2016, which contains such regional development and growth forecasts. These regional development and growth forecasts form the basis for the land use and transportation control portions of the 2016 AQMP, and its growth forecasts were utilized in the preparation of the air quality forecasts and consistency analysis included in the 2016 AQMP (SCAQMD 2017). Both the RTP/SCS and the AQMP are based on projections that originate with local jurisdictions. On September 3, 2020, the SCAG Regional Council adopted the *2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS)* (SCAG 2020). However, the 2020–2045 RTP/SCS is not yet incorporated into the approved AQMPs for the SCAQMD or AVAQMD.

SCAG is required to adopt an SCS along with its RTP pursuant to Senate Bill (SB) 375 (Chapter 728, Statutes of 2008), which required the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state’s MPOs, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. SCAG’s target set in 2011 was a per capita reduction of 8 percent for 2020 and 13 percent for 2035 compared to the 2005 baseline (SCAG 2016; CARB 2018). SCAG’s 2016–2040 RTP/SCS meets or exceeds these targets, lowering GHG emissions (below 2005 levels) by eight percent by 2020; 18 percent by 2035; and 21 percent by 2040 (SCAG 2016). Although the RTP/SCS is not focused specifically on air emissions, air quality is affected by the growth projections established in the 2016–2040 RTP/SCS and incorporated in the 2016 AQMP through land use planning and the consequential reduction of emissions from passenger and light-duty vehicles.

Los Angeles County General Plan 2035

LA County has authority and responsibility to reduce air pollution through its police power by assessing and mitigating air emissions resulting from its land use decisions. LA County also is responsible for the implementation of transportation control measures as outlined in the AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. Consistent with CEQA, LA County assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation measures.

The General Plan provides the fundamental basis for LA County’s land use and development policy, and represents the basic community values, ideals, and aspirations to govern a shared environment through 2035. General goals and policies relevant to the Draft 2045 CAP include those related to infill development (Goal LU 4); vibrant, livable and healthy communities that contain a mix of community-serving uses (Goal LU 5); land use patterns and community infrastructure that promote health and wellness for all neighborhoods (Goal LU 9); well-designed, healthy places (Goal LU 10); interconnected and safe bicycle- and pedestrian-friendly streets, sidewalks, paths and trails that promote active transportation and transit use (e.g., Goal M 2, Goal M 5) as well as safe spaces for pedestrian use (e.g., Policy M 2.7, Policy M 2.8); sustainable agricultural practices (Goal C/NR 9) and sustainable management of renewable and nonrenewable energy resources (Goal C/NR 12); and others. Approval of the Draft 2045 CAP would result in the revisions to the General Plan’s Air Quality Element set forth in Table 2-1, *Updates to General Plan Air Quality Element*, and Table 2-2, *General Plan Implementation Program Updates*, in Chapter 2, *Project Description*.

3.4.2 Impact Analysis

3.4.2.1 Significance Criteria

To determine the level of significance of an identified impact, the following thresholds are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact on air quality if it would:

- a) Conflict with or obstruct implementation of the applicable air quality plan;
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;
- c) Expose sensitive receptors to substantial pollutant concentrations; or
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Pursuant to CEQA Guidelines Section 15064.7, a lead agency may consider using significance criteria established by the applicable air quality management district or air pollution control district when making determinations of significance. The measures and actions of the Draft 2045 CAP, if approved, would be implemented within the boundaries of both the AVAQMD and the SCAQMD. SCAQMD has established air quality significance thresholds in its *CEQA Air Quality Handbook*. These thresholds are based on the recognition that the SCAB and MDAB are distinct geographic areas with critical air pollution problems for which ambient air quality standards have been promulgated to protect public health (SCAQMD 1993). Air quality impacts in this EIR are evaluated according to the most recent thresholds adopted by the SCAQMD in connection with its CEQA Air Quality Handbook, Air Quality Analysis Guidance Handbook, and subsequent SCAQMD guidance as well as the AVAQMD CEQA and Federal Conformity Guidelines

(AVAQMD 2016).⁵ In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.4.2.2 Methodology

The Draft 2045 CAP identifies types of future projects that could be proposed in furtherance of the measures and actions set forth in the Draft 2045 CAP. However, the Draft 2045 CAP is a policy document and does not propose any specific future project. As a result, no emissions calculations were performed for the types of projects that could be facilitated by adoption of the Draft 2045 CAP. This analysis assumes that the California Emissions Estimator Model (CalEEMod), or a successor model that is approved for use for CEQA air quality analyses by the SCAQMD and AVAQMD, would be used to calculate construction and operational emissions before any such project would be allowed to proceed.

The SCAQMD provides guidance for conducting the analysis of localized emissions in their *Localized Significance Threshold Methodology* (SCAQMD 2008), which relies on on-site mass emission rate screening tables and project-specific dispersion modeling typically for sites sized one, two, and five acres. The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards without project-specific dispersion modeling. The screening criteria depend on: (1) the area in which a project is located, (2) the size of a project area, and (3) the distance between a project area and the nearest sensitive receptor. The localized significance thresholds are applicable to NO_x, CO, PM₁₀, and PM_{2.5}. The SCAQMD *Localized Significance Threshold Methodology* (SCAQMD 2008) provides screening localized significance thresholds for projects up to five acres in size located up to 500 meters of the nearest sensitive receptors. Should individual projects exceed applicable screening level thresholds in the SCAQMD *Localized Significance Threshold Methodology* (or successor guidance document), project-specific dispersion modeling may be conducted to demonstrate that no exceedance of the concentration-based thresholds (from which the screening tables are derived) would occur (SCAQMD 2008).⁶

Construction Emissions

Because precise descriptions and locations of activities involving construction approved for site-specific projects facilitated by the Draft 2045 CAP are not known at this time, it is not possible to quantify construction emissions. Thus, construction air quality impact predictions in this analysis are qualitatively based on the possibility for projects facilitated by implementation of Draft 2045 CAP measures to exceed the SCAQMD and/or AVAQMD significance thresholds for construction emissions.

⁵ While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, projects undertaken in furtherance of the Draft 2045 CAP would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial and residential land use projects. As a result, lead emissions are not further evaluated.

⁶ The AVAQMD does not have a similar guidance to that of the SCAQMD's localized significance thresholds.

There are six default CalEEMod construction phases commonly used to evaluate construction emissions: demolition, site preparation, grading, building construction, paving, and architectural coating. For example, due to the developed nature of some County parcels, many projects may only require a demolition (existing buildings and asphalt pavement) phase and minor site preparation phase prior to building construction, while some projects may require renovation, which would be less intensive than reconstruction. In addition, some projects may not require any demolition, but would require site preparation and/or grading to prepare the site for development.

Any future construction facilitated by the Draft 2045 CAP would be required to comply with SCAQMD Rule 403 and AVAQMD Rule 403 to control dust emissions during any dust-generating activities. SCAQMD Rule 403 and AVAQMD Rule 403 require implementation of various best available fugitive dust control measures for all construction activity sources within its jurisdictional boundaries. Dust control measures include, but are not limited to, maintaining stability of soil through pre-watering of site prior to clearing, grubbing, cut and fill, and earth-moving activities; stabilizing soil during and immediately after clearing, grubbing, cut and fill, and other earth-moving activities; stabilizing backfill during handling and at completion of activity; and pre-watering material prior to truck loading and ensuring that freeboard exceeds six inches.

Operational Emissions

Because precise descriptions and locations of activities involving operation approved for site-specific projects facilitated by the Draft 2045 CAP are not known at this time, it is not possible to quantify operational emissions.⁷ Thus, operational air quality impact predictions were qualitatively based on the possibility of projects facilitated by the Draft 2045 CAP measures and actions to exceed the SCAQMD and/or AVAQMD significance thresholds for operational emissions.

There are several categories of emissions in CalEEMod for operations commonly used to evaluate operational emissions: area sources, energy sources, mobile sources, and other sources. Area sources typically include consumer product use (e.g., cleaners, solvents, and other household or institutional cleaning products), architectural coatings, and landscape maintenance equipment.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Architectural coatings are paints for coating buildings, structures, and roadway striping. Consumer products and architectural coatings generate VOC emissions. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers.

⁷ Section 3.5, *Greenhouse Gas Emissions*, also does not provide GHG emissions quantification of any specific projects that may be facilitated by the Draft 2045 CAP. The GHG analysis includes a 2015 baseline GHG inventory, a 2018 GHG inventory update, and 2030, 2035, and 2045 emissions projections for the unincorporated County-wide level based on growth in population, housing, and employment that is expected for the County through the year 2045. However, unlike GHG emissions, which generate exclusively cumulative impacts, air quality significance thresholds are based on individual project-level emissions. Information is not available to quantify individual project-level air pollutant emissions and such quantification would be speculative at this time.

Landscape equipment may be gasoline fueled and may result in fuel combustion emissions (e.g., VOC, NO_x, CO, PM₁₀, and PM_{2.5} with trace amounts of SO_x).

As represented in CalEEMod, energy sources generate air pollutant emissions from the combustion of natural gas for building heating and cooking (e.g., VOC, NO_x, CO, PM₁₀, and PM_{2.5} with trace amounts of SO_x).

Mobile sources consist of motor vehicles (automobiles and light-duty trucks) traveling to and from the parcels developed or from other development facilitated by Draft 2045 CAP measures and actions. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. Emissions from motor vehicles consist of tailpipe fuel combustion emissions (e.g., VOC, NO_x, CO, PM₁₀, and PM_{2.5} with trace amounts of SO_x) and road dust emissions (e.g., PM₁₀ and PM_{2.5} from brake wear, tire wear and re-entrained road dust). Vehicles operating under alternative fuel or electric battery power would generate reduced or no tailpipe air pollutant emissions compared to gasoline- or diesel-fueled vehicles but would still generate road dust emissions.

Due to the general nature of the Draft 2045 CAP, projects facilitated by the Draft 2045 CAP measures and actions could result in additional operational emissions sources that are not listed above or for which specifics are not known. Note that all stationary sources of TACs resulting from projects facilitated by the Draft 2045 CAP would be required to comply with applicable SCAQMD or AVAQMD rules and regulations and may be required to obtain a permit to operate from the SCAQMD or AVAQMD if subject to air quality permitting regulations.

The operation of future projects facilitated by Draft 2045 CAP, measures and actions would be required to comply with applicable SCAQMD and AVAQMD, including those listed above in Section 3.4.1.3.

3.4.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics. As explained in Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP*, the potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the impacts of implementing these measures that could result, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045*

CAP Measures and Affected Resource Areas, in the Executive Summary, identifies certain measures and actions relevant to this analysis of air quality–related impacts. These and other relevant measures and actions include: Action ES1.2 regarding the control of fugitive emissions from active, idle, and abandoned oil wells; Action T6.7 regarding increased use of green hydrogen vehicles throughout the County; Measure T8 regarding the acceleration of freight decarbonization; Measure T9 regarding the expanded use of zero-emission technologies for off-road vehicles and equipment; and Action E3.4 regarding refrigerant management as among the Draft 2045 CAP measures and actions that are particularly relevant to the analysis of impacts to air quality. Projects facilitated by Measure W2, *Increase Organic Waste Diversion*, also could result in odor-related impacts to air quality depending on where any new facilities are proposed to be located. Specific air quality-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would conflict with or obstruct implementation of applicable air quality plans of either the AVAQMD or the SCAQMD.

Impact 3.4-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would conflict with or obstruct implementation of the applicable air quality plan. (Significant and Unavoidable)

South Coast Air Quality Management District Air Quality Plans

The following analysis addresses the Project’s consistency with applicable SCAQMD plans, inclusive of regulatory compliance. The SCAQMD recommends, when determining whether a project is consistent with the 2016 AQMP, that the lead agency assess whether a project would directly obstruct implementation of the plans by impeding SCAQMD’s efforts to achieve attainment with respect to any criteria air pollutant for which it is currently not in attainment of the NAAQS and CAAQS (e.g., ozone, PM₁₀, and PM_{2.5}), and whether it is consistent with the demographic and economic assumptions (typically land use related, such as employment and population/residential units) upon which the plan is based.

In accordance with SCAQMD’s *CEQA Air Quality Handbook*, the Draft 2045 CAP would have a significant impact relative to criterion a) if it would do any of the following: (i) Result in an increase in the frequency or severity of existing air quality violations; (ii) cause or contribute to new air quality violations; or (iii) delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (Criterion No. 1).

The Draft 2045 CAP would have a significant impact relative to criterion a) if it would exceed the assumptions utilized in preparing the AQMP (Criterion No. 2). The AQMP control measures and related emissions reduction estimates are based upon emissions projections for a future development scenario derived from growth in land use, population, and employment characteristics incorporated into the SCAG RTP. Accordingly, conformance with the AQMP for development projects is also determined by demonstrating compliance with local land use plans and/or population projections.

The AQMP uses the assumptions and projections of local planning agencies to determine control strategies for regional compliance status. Because the AQMP is based on local land use plans, projects that are deemed consistent with local land use plans are found to be consistent with the AQMP. CEQA requires that general plans and projects be evaluated for consistency with the AQMP using the two key indicators for consistency with the AQMP.

Criterion No. 1

The first criterion evaluates the potential for a project to result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards of the interim emissions reductions specified in the AQMP. The SCAQMD numerical significance thresholds for construction and operational emissions are designed for the analysis of individual projects and not for long-term planning documents, such as the Draft 2045 CAP. Emissions are dependent on the exact size, nature, and location of an individual land use type, combined with reductions in localized impacts from the removal of existing land use types, as applicable (i.e., conversion of light industrial uses).

The Draft 2045 CAP would be implemented through future projects facilitated by the proposed Draft 2045 CAP measures and actions, as well as through the application of the Draft 2045 CAP Consistency Checklist (**Appendix F**) to allow for streamlining of GHG impacts under CEQA. Additional analysis would be needed to determine the impacts of implementation of these measures at specific locations, and future projects would be analyzed at the project level and would be subject to CEQA.

For future projects seeking to use the Draft 2045 CAP Consistency Checklist for CEQA GHG streamlining, LA County would determine whether the future project would be consistent with the Draft 2045 CAP. As described above, projects implementing Draft 2045 CAP measures and actions that are deemed consistent with local land use plans would also be consistent with the AQMP.

Construction

With respect to the first criterion, as discussed under the analysis for Impact 3.4-3 below, construction of future individual projects in the unincorporated areas of the County that would be facilitated by Draft 2045 CAP measures and actions have the potential to create localized air quality impacts through the use of heavy-duty construction equipment. No specific projects are included in the Draft 2045 CAP because no information currently is available regarding specific projects that could be facilitated by the Draft 2045 CAP measures and actions. Other details necessary to provide a meaningful estimate of emissions also cannot be quantified, as specific sites, buildings and facilities to be constructed or modified, construction schedules, and quantities of earthmoving are unknown.

Because this information is unknown, localized emissions modeling is not feasible and would be speculative. New facilities, such as new renewable energy facilities (Measure ES3), new or expanded wastewater facilities (Measure E5), and waste processing facilities (Measures W1 and W2), may occur as large construction projects and could result in a significant air quality impact from the construction of such future facilities even with implementation of these Draft 2045 CAP

measures. In addition, because future projects facilitated by the Draft 2045 CAP could occur close to existing sensitive receptors, construction of projects facilitated by the Draft 2045 CAP measures and actions could generate localized emissions in excess of the concentration-based localized significance thresholds.

Therefore, in response to Criterion No. 1, the construction of future projects facilitated by the Draft 2045 CAP measures and actions could increase the frequency or severity of an existing violation or cause or contribute to new violations and impacts would be significant.

Operations

The Draft 2045 CAP is a comprehensive planning document outlining LA County's proposed approach to address climate change impacts. Several Draft 2045 CAP measures would actively reduce air pollution from both stationary and mobile pollutant sources as a component of the broader strategies that would reduce energy consumption and vehicle miles traveled (VMT), which include a number of land use strategies such as: planning for growth around livable corridors (addressed in Draft 2045 CAP Measures T1 and T2); limit parking (Measure T5); providing more options for short trips/neighborhood mobility areas (Measures T3 and T4); supporting zero-emission vehicles and expanding vehicle charging stations (Measures T6–T9); and supporting local sustainability planning (Measures ES1–ES5, E1–E6, and W1–W2).

All future discretionary projects would be subject to project-level CEQA analysis to determine whether operational air quality emissions are consistent with this indicator. The location, design, and land use of future projects facilitated by the Draft 2045 CAP in unincorporated areas of the County within the SCAB would incorporate Draft 2045 CAP land use and transportation strategies related to reducing vehicle trips for residents and employees, by (a) focusing increasing residential density near transit and including affordable housing options (Measure T1); and (b) increasing commercial and residential density, with over 95 percent of new residential development planned for multi-family dwelling units (Measure T2). This would allow for increased mixed-use density at infill locations and near public transit.

Future projects facilitated by the Draft 2045 CAP that implement these measures would not conflict with AQMP land use and transportation strategies that are intended to reduce VMT, reduce the frequency or severity of existing air quality violations or new violations, and achieve the timely attainment of air quality standards specified in the AQMP. As a result, the Project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emission reductions in the AQMP. Therefore, operation of the Project would be consistent with Criterion No. 1 and impacts would be less than significant.

Criterion No. 2

While striving to achieve the NAAQS for ozone and PM_{2.5} and the CAAQS for ozone, PM₁₀, and PM_{2.5} through a variety of air quality control measures, the 2016 AQMP also accommodates planned growth in the SCAB. With respect to the second criterion for determining consistency with AQMP growth assumptions, the projections in the AQMP for achieving air quality goals are based on assumptions in SCAG's 2016–2040 RTP/SCS regarding population, housing, and

growth trends. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of consistency with applicable population, housing, and employment growth projections and appropriate incorporation of AQMP control measures. The following discussion provides an analysis with respect to this criterion.

For future projects located within the SCAB, which is under the jurisdiction of the SCAQMD, the SCAQMD's 2016 AQMP is the applicable air quality plan. The 2016 AQMP relies on emissions forecasts based on the demographic and economic growth projections provided by SCAG's 2016–2040 RTP/SCS in devising its control strategies for reducing emissions of ozone and PM_{2.5} to meet five NAAQS standards (SCAQMD 2017). SCAG is charged by California law to prepare and approve “the portions of each AQMP relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies.” (SCAQMD 2017). Projects whose growth is included in the projections used in the formulation of the AQMP are considered to be consistent with the plan and not to interfere with its attainment (SCAQMD 1993).

Construction

Control Strategies

The SCAB is designated nonattainment for ozone and PM_{2.5} under the CAAQS and NAAQS, nonattainment for lead (Los Angeles County only) under the NAAQS, and nonattainment for PM₁₀ under the CAAQS. The emissions of criteria pollutants associated with future projects facilitated by the Draft 2045 CAP could exceed SCAQMD thresholds for criteria pollutants. Any future project facilitated by Draft 2045 CAP measures and actions would be required to comply with CARB's requirements to minimize short-term emissions from on-road and off-road diesel equipment, including the ATCM to limit heavy-duty diesel motor vehicle idling to no more than five minutes at any given time, with SCAQMD's regulations such as Rule 403 for controlling fugitive dust, and Rule 1113 for controlling VOC emissions from architectural coatings.

Furthermore, as applicable to the type of project, individual projects facilitated by Draft 2045 CAP measures and actions would comply with fleet rules to reduce on-road truck emissions. Compliance with these measures and requirements would be consistent with and meet or exceed the AQMP compliance requirements for control strategies intended to reduce emissions from construction equipment and activities. Therefore, future construction facilitated by Draft 2045 CAP measures and actions would be consistent with the control strategies of the AQMP and impacts would be less than significant.

Growth Projections

The Draft 2045 CAP would facilitate an increase in short-term employment compared to existing conditions. Although any construction facilitated by the Project would generate construction workers, it would be unlikely to create a substantial number of new construction jobs; construction-related jobs generated by the Project would likely be filled by employees within the construction industry in the greater Los Angeles County region. Construction industry jobs generally have no regular place of business, as construction workers commute to job sites throughout the region, which may change several times a year. Moreover, these jobs would be temporary, lasting only through the duration of construction. Furthermore, although projects

facilitated by the Draft 2045 CAP could result in temporary construction jobs, the Draft 2045 CAP would support development already allowed under the General Plan land use and employment assumptions, and housing expectations set forth in the 2021–2029 Housing Element.

As such, the Draft 2045 CAP would not result in an unanticipated increase in jobs outside of what was accounted for and projected within the General Plan. Therefore, the construction jobs generated by projects facilitated by the Project would not conflict with the long-term employment or population projections upon which the AQMPs are based and impacts would be less than significant.

Operations

Control Strategies

Projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated areas of the County within the SCAB would be required to comply with CARB motor vehicle standards, SCAQMD regulations for stationary sources and architectural coatings, Title 24 energy efficiency standards, and, to the extent applicable, to the growth projections in the 2016–2040 RTP/SCS, which are incorporated into the 2016 AQMP.

In addition, the Draft 2045 CAP outlines several measures and actions that would result in GHG emissions reductions, which would support AQMP consistency for projects facilitated by the Draft 2045 CAP within the incorporated areas of the County. The AQMP’s strategies are discussed below with references to relevant Draft 2045 CAP measures.

The AQMP includes land use and transportation strategies from the 2016–2040 RTP/SCS that are intended to reduce VMT and resulting regional mobile-source emissions. The applicable land use strategies included in the Draft 2045 CAP that would reduce emissions are as follows: planning for growth around livable corridors (addressed in Draft 2045 CAP Measures T1 and T2); limit parking (Measure T5); providing more options for short trips/ neighborhood mobility areas (Measures T3 and T4); supporting zero emission vehicles and expanding vehicle charging stations (Measures T6–T9); and supporting local sustainability planning (Measures ES1–ES5, E1–E6, and W1–W2). The applicable transportation strategies include: managing through the Transportation Demand Management (TDM) Program and the Transportation System Management (TSM) Plan including advanced ramp metering; expansion and integration of the traffic synchronization network; and promoting active transportation. The majority of the transportation strategies would be implemented by cities, counties, and other regional agencies such as SCAG and SCAQMD, although some can be furthered by individual projects.

The location, design, and land use of future General Plan-anticipated growth in the unincorporated areas of the County would implement Draft 2045 CAP land use and transportation strategies related to reducing vehicle trips for residents and employees by increasing commercial and residential density with over 95 percent of new residential development planned for multi-family dwelling units (Measure T2), which would allow for increased mixed-use density at infill locations and near public transit. Draft 2045 CAP Measure T1 focuses primarily on increasing residential density near transit and affordable housing.

Therefore, the Draft 2045 CAP, and projects facilitated by Draft 2045 CAP measures and actions, would not conflict with AQMP land use and transportation strategies that are intended to reduce VMT. Rather, the Draft 2045 CAP includes measures and actions that would support the VMT reduction goals in the SCAB. The Project, and projects facilitated by Draft 2045 CAP measures and actions, would not conflict with the control strategies of the AQMP, and impacts would be less than significant.

Growth Projections

The emissions inventory for the SCAB is formed, in part, by existing city and county general plans. The AQMP is based on population, employment and VMT forecasts by SCAG. A project might be in conflict with the AQMP if the development's growth is greater than that anticipated in the local general plan and SCAG's growth projections. Projects facilitated by Draft 2045 CAP measures and actions would be required to undergo subsequent environmental review pursuant to CEQA and would be required to demonstrate compliance with the AQMP. Individual projects also would be required to demonstrate compliance with SCAQMD rules and regulations governing air quality.

LA County continues to coordinate with SCAQMD and SCAG to ensure relevant growth projections, land use planning efforts, and local development patterns are accounted for in the regional planning and air quality planning processes. The Draft 2045 CAP itself does not propose any change to existing General Plan land use or zoning designations for any parcel in the unincorporated areas of the County. Therefore, the implementation of Draft 2045 CAP measures and actions would not conflict with growth projections and would not conflict with or obstruct the implementation of the applicable air quality plan. Many proposed Draft 2045 CAP measures would reduce emissions, which would avoid impacts related to conflicts with an applicable air quality plan.

The purpose of the Draft 2045 CAP is to reduce GHG emissions. The Draft 2045 CAP's measures and actions encompass the broad categories of climate leadership, transportation, building energy and water, and waste. While these measures may result in short-term increases of air pollutant emissions during construction of new facilities, implementation of the Draft 2045 CAP would result in an overall improvement in regional long-term air quality by establishing a more sustainable framework. The 2016 AQMP was prepared to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections used in the formulation of the AQMP.

The Draft 2045 CAP is a policy-level document that does not include site-specific projects. Future projects in the Los Angeles Basin portion of the unincorporated areas of the County that would be facilitated by Draft 2045 CAP measures and actions primarily would be located primarily within the urban environment. The Draft 2045 CAP does not propose changes to existing General Plan land use designations. The Draft 2045 CAP would support development already allowed under the General Plan land use assumptions and 2021–2029 Housing Element; and would include measures such as Measure T1, to encourage density near high-quality transit areas, and Measure T2, to develop land use plans addressing jobs/housing balance and increased

mixed use to the extent allowed by the General Plan. Therefore, the Draft 2045 CAP would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021–2029 Housing Element and would not conflict with the 2016 AQMP growth projections.⁸

The 2016 AQMP (including its VMT reduction goals) is based on the growth projections in the 2016–2040 RTP/SCS. The Draft 2045 CAP is based on similar population and employment numbers in the 2045 forecast as compared to those in the 2020–2045 RTP/SCS’s 2045 forecast. As discussed above under control strategies, the Draft 2045 CAP includes measures that are expected to result in substantially less daily VMT and therefore reduce VMT per service population. The VMT reduction goals in the Draft 2045 CAP measures would be consistent with the VMT reduction goals and corresponding growth projections of the AQMP and impacts would be less than significant.

Antelope Valley Air Quality Management District Air Quality Plan

The following analysis addresses the Project’s consistency with applicable AVAQMD plans, inclusive of regulatory compliance. The AVAQMD CEQA and Federal Conformity Guidelines (August 2016) do not provide a specific methodology for evaluating conflicts with an applicable air quality plan; therefore, the same approach used for the SCAQMD is used for this EIR. Thus, the Draft 2045 CAP would have a significant impact relative to criterion a) if it would do any of the following: (i) Result in an increase in the frequency or severity of existing air quality violations; (ii) cause or contribute to new air quality violations; or (iii) delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (Criterion No. 1). The Draft 2045 CAP would have a significant impact relative to criterion a) if it would exceed the assumptions utilized in preparing the AQMP (Criterion No. 2).

Criterion No. 1

The AVAQMD numerical significance thresholds for construction and operational emissions are designed for the analysis of individual projects and not for long-term planning documents, such as the Draft 2045 CAP. Emissions are dependent on the exact size, nature, and location of an individual land use type, combined with reductions in localized impacts from the removal of existing land use types, as applicable (i.e., conversion of light industrial uses).

The Draft 2045 CAP would be implemented through future projects facilitated by the proposed Draft 2045 CAP measures and actions, as well as through the application of the Draft 2045 CAP Consistency Checklist (Appendix F) to allow for streamlining of GHG impacts under CEQA. Additional analysis would be needed to determine the impacts of implementation of these measures at specific locations, and future projects would be analyzed at the project level and would be subject to CEQA, as required.

⁸ The SCAG 2016–2040 RTP/SCS forecasts a 2040 population of 1,273,700 persons in unincorporated Los Angeles County (see Demographics & Growth Forecast Appendix [SCAG 2016]). The 2021–2029 Housing Element forecast a 2045 population of 1,258,000 (see Section 4.14 of Los Angeles County 2021). Given that the projected population in 2045 under the Draft 2045 CAP would be less than the projected population in 2040 in the SCAG 2016–2040 RTP/SCS, the Draft 2045 CAP would not conflict with the growth projections.

For future projects seeking to use the Draft 2045 CAP Consistency Checklist for CEQA GHG streamlining, LA County would determine whether the future project would be consistent with the Draft 2045 CAP. As described above, projects implementing Draft 2045 CAP measures and actions that are deemed consistent with local land use plans would also be consistent with the AVAQMD 2015 8-hour RACT SIP Analysis and 2017 Federal 75 ppb Ozone Attainment Plan.

Construction

With respect to the first criterion, as discussed under the analysis for Impact 3.4-3 below, construction of future individual projects in the unincorporated areas of the County that would be facilitated by Draft 2045 CAP measures and actions have the potential to create localized air quality impacts through the use of heavy-duty construction equipment. No specific projects are included in the Draft 2045 CAP because no information currently is available regarding specific projects that could be facilitated by the Draft 2045 CAP measures and actions. Other details necessary to provide a meaningful estimate of emissions also cannot be quantified, as specific sites, buildings and facilities to be constructed or modified, construction schedules, and quantities of earthmoving are unknown.

Because this information is unknown, localized emissions modeling is not feasible and would be speculative. New facilities, such as new renewable energy facilities (Measure ES3), new or expanded recycled water facilities (Measure E5), and waste processing facilities (Measures W1 and W2), may occur as large construction projects and could result in a significant air quality impact from the construction of such future facilities even with implementation of these Draft 2045 CAP measures. In addition, because future projects facilitated by the Draft 2045 CAP measures and actions could occur close to existing sensitive receptors, construction of projects facilitated by the Draft 2045 CAP measures and actions could generate localized emissions that exceed the concentration-based ambient air quality standards.

Therefore, in response to Criterion No. 1, the construction of future projects facilitated by the Draft 2045 CAP measures and actions, could increase the frequency or severity of an existing violation or cause or contribute to new violations and impacts would be significant.

Operations

The Draft 2045 CAP is a comprehensive planning document outlining LA County's proposed approach to address climate change impacts. Several Draft 2045 CAP measures would actively reduce air pollution from both stationary and mobile pollutant sources as a component of the broader strategies that would reduce energy consumption and VMT, which include a number of land use strategies such as: planning for growth around livable corridors (addressed in Draft 2045 CAP Measures T1 and T2); limit parking (Measure T5); providing more options for short trips/neighborhood mobility areas (Measures T3 and T4); supporting zero emission vehicles and expanding vehicle charging stations (Measures T6–T9); and supporting local sustainability planning (Measures ES1–ES5, E1–E6, and W1–W2).

All future discretionary projects would be subject to project-level CEQA analysis to determine whether operational air quality emissions are consistent with this indicator. The location, design, and land use of future projects facilitated by the Draft 2045 CAP in the unincorporated areas of the County within the Antelope Valley Air Basin (AVAB) would incorporate Draft 2045 CAP

land use and transportation strategies related to reducing vehicle trips for residents and employees, by (a) focusing increasing residential density near transit and including affordable housing options (Measure T1); and (b) increasing commercial and residential density, with over 95 percent of new residential development planned for multi-family dwelling units (Measure T2). This would allow for increased mixed-use density at infill locations and near public transit.

Future projects facilitated by the Draft 2045 CAP that implement these measures would not conflict with AQMP land use and transportation strategies that are intended to reduce VMT, reduce the frequency or severity of existing air quality violations or new violations, and achieve the timely attainment of air quality standards specified in the AVAQMD 2015 8-hour RACT SIP Analysis and 2017 Federal 75 ppb Ozone Attainment Plan. Therefore, operation of the Project would be consistent with Criterion No. 1 and impacts would be less than significant.

Criterion No. 2

While striving to achieve the NAAQS for ozone and the CAAQS for ozone and PM₁₀ through a variety of air quality control measures, the AVAQMD 2015 8-hour RACT SIP Analysis and 2017 Federal 75 ppb Ozone Attainment Plan and AVAQMD rules and regulations accommodates planned growth in the AVAB. With respect to the second criterion for determining consistency with air quality plan growth assumptions, the projections in the AVAQMD air quality plans for achieving air quality goals are based on assumptions in SCAG's 2016–2040 RTP/SCS regarding population, housing, and growth trends. Determining whether or not a project exceeds the assumptions reflected in the AVAQMD air quality plans involves the evaluation of consistency with applicable population, housing, and employment growth projections and appropriate incorporation of AQMP control measures. The following discussion provides an analysis with respect to this criterion.

For future projects located within the AVAB, which is under the jurisdiction of the AVAQMD, the AVAQMD 2015 8-hour RACT SIP Analysis and 2017 Federal 75 ppb Ozone Attainment Plan are the applicable air quality plans. The AVAQMD air quality plans rely on emissions forecasts based on the demographic and economic growth projections provided by SCAG's 2016–2040 RTP/SCS in devising its control strategies for reducing emissions to meet the NAAQS standards (AVAQMD 2017). The AVAQMD incorporates "VMT and speed distribution data... from the 2016 RTP/SCS adopted by SCAG" (AVAQMD 2017).

Construction

Control Strategies

The AVAB is designated nonattainment for ozone under the NAAQS and nonattainment for ozone and PM₁₀ under the CAAQS. The emissions of criteria pollutants associated with future projects facilitated by the Draft 2045 CAP could exceed AVAQMD thresholds for criteria pollutants. Any future project facilitated by Draft 2045 CAP measures and actions would be required to comply with CARB's requirements to minimize short-term emissions from on-road and off-road diesel equipment, including the ATCM to limit heavy-duty diesel motor vehicle idling to no more than five minutes at any given time, with AVAQMD's regulations such as Rule 403 for controlling fugitive dust, and Rule 1113 for controlling VOC emissions from architectural

coatings. Furthermore, as applicable to the type of project, individual projects facilitated by Draft 2045 CAP measures and actions would comply with fleet rules to reduce on-road truck emissions.

Compliance with these measures and requirements would be consistent with and meet or exceed the requirements of the AVAQMD air quality plans for control strategies intended to reduce emissions from construction equipment and activities. Therefore, future construction facilitated by the Draft 2045 CAP measures and actions would be consistent with the control strategies of the AVAQMD air quality plans and impacts would be less than significant.

Growth Projections

The Draft 2045 CAP would facilitate an increase in short-term employment compared to existing conditions. Although any construction facilitated by the Project would generate construction workers, it would be unlikely to create a substantial number of new construction jobs; construction-related jobs generated by the Project would likely be filled by employees within the construction industry within the greater Los Angeles County region and nearby population centers in counties adjacent to the Antelope Valley. Construction industry jobs generally have no regular place of business, as construction workers commute to job sites throughout the region, which may change several times a year. Moreover, these jobs would be temporary, lasting only through the duration of construction. Furthermore, although projects facilitated by the Draft 2045 CAP could result in temporary construction jobs, the Draft 2045 CAP would support development already allowed under the General Plan land use and employment assumptions, and housing expectations set forth in the 2021–2029 Housing Element.

As such, the Draft 2045 CAP would not result in an unanticipated increase in jobs outside of what was accounted for and projected within the General Plan. Therefore, the construction jobs generated by projects facilitated by the Project would not conflict with the long-term employment or population projections upon which the AVAQMD air quality plans are based and impacts would be less than significant.

Operations

Control Strategies

Projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated areas of the County within the AVAB would be required to comply with CARB motor vehicle standards, AVAQMD regulations for stationary sources and architectural coatings, Title 24 energy efficiency standards, and, to the extent applicable, to the growth projections in the 2016–2040 RTP/SCS, which are incorporated into the AVAQMD air quality plans.

In addition, the Draft 2045 CAP outlines several measures and actions that would result in GHG emissions reductions, which would support consistency with AVAQMD air quality plans for projects facilitated by the Draft 2045 CAP within the incorporated areas of the County. The AVAQMD air quality plans emissions reductions strategies are discussed below with references to relevant Draft 2045 CAP measures.

The AVAQMD air quality plans include land use and transportation strategies from the 2016–2040 RTP/SCS that are intended to reduce VMT and resulting regional mobile-source emissions.

The applicable land use strategies included in the Draft 2045 CAP that would reduce emissions are as follows: planning for growth around livable corridors (addressed in Draft 2045 CAP Measures T1 and T2); limit parking (Measure T5); providing more options for short trips/neighborhood mobility areas (Measures T3 and T4); supporting zero emission vehicles and expanding vehicle charging stations (Measures T6–T9); and supporting local sustainability planning (Measures ES1–ES5, E1–E6, and W1–W2).

The location, design, and land use of future General Plan–anticipated growth in the unincorporated areas of the County would implement Draft 2045 CAP land use and transportation strategies related to reducing vehicle trips for residents and employees by increasing commercial and residential density with over 95 percent of new residential development planned for multi-family dwelling units (Measure T2), which would allow for increased mixed-use density at infill locations and near public transit. Draft 2045 CAP Measure T1 focuses primarily on increasing residential density near transit and affordable housing.

Therefore, the Draft 2045 CAP, and projects implementing Draft 2045 CAP measures and actions, would not conflict with land use and transportation strategies in the AVAQMD air quality plans that are intended to reduce VMT. Rather, the Draft 2045 CAP includes measures and actions that would support the VMT reduction goals in the AVAB. The Project, and projects facilitating Draft 2045 CAP measures and actions, would not conflict with the control strategies of the AVAQMD air quality plans and impacts would be less than significant.

Growth Projections

The emissions inventory for the AVAB is formed, in part, by existing city and county general plans and population, employment and VMT forecasts by SCAG. A project might be in conflict with the applicable air quality plan if the development’s growth is greater than that anticipated in the local general plan and SCAG’s growth projections. Projects facilitated by Draft 2045 CAP measures and actions would be required to undergo subsequent environmental review pursuant to CEQA and would be required to demonstrate compliance with the AVAQMD air quality plans. Individual projects also would be required to demonstrate compliance with AVAQMD rules and regulations governing air quality.

LA County continues to coordinate with AVAQMD and SCAG to ensure relevant growth projections, land use planning efforts, and local development patterns are accounted for in the regional planning and air quality planning processes. The Draft 2045 CAP itself does not propose any change to existing General Plan land use or zoning designations for any parcel in the unincorporated areas of the County. Therefore, the implementation of Draft 2045 CAP measures and actions would not conflict with growth projections and would not conflict with or obstruct the implementation of the applicable air quality plan. Many proposed Draft 2045 CAP measures would reduce emissions, which would avoid impacts related to conflicts with an applicable air quality plan.

The purpose of the Draft 2045 CAP is to reduce GHG emissions. The Draft 2045 CAP’s measures and actions encompass the broad categories of climate leadership, transportation, building energy and water, and waste. While these measures may result in short-term increases of air pollutant

emissions during construction of new facilities, implementation of the Draft 2045 CAP would result in an overall improvement in regional long-term air quality by establishing a more sustainable framework. The AVAQMD air quality plans were prepared to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of AVAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AVAQMD air quality plans would not interfere with attainment because this growth is included in the projections used in the formulation of the AVAQMD air quality plans.

The Draft 2045 CAP is a policy-level document that does not include site-specific projects. Because the Draft 2045 CAP does not propose changes to existing General Plan land use designations, the Draft 2045 CAP would support development already allowed under the General Plan land use assumptions and 2021–2029 Housing Element; and would include measures, such as Measure T1 to encourage density near high-quality transit areas and Measure T2 to develop land use plans addressing jobs/housing balance and increased mixed use to the extent allowed by the general Plan. Therefore, the Draft 2045 CAP would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021–2029 Housing Element and would not conflict with the growth projections.⁹

The AVAQMD air quality plans (including its VMT reduction goals) are based on the growth projections in the 2016–2040 RTP/SCS. The Draft 2045 CAP is based on similar population and employment numbers in the 2045 forecast as compared to those in the 2020–2045 RTP/SCS’s 2045 forecast. As discussed above under control strategies, the Draft 2045 CAP includes measures that are expected to result in substantially less daily VMT and therefore reduce VMT per service population. The VMT reduction goals in the Draft 2045 CAP measures would be consistent with the VMT reduction goals and corresponding growth projections of the AQMP and impacts would be less than significant.

Summary

The Draft 2045 CAP identifies strategies, measures, and various implementing actions to reduce GHG emissions in unincorporated areas of the County. The GHG emissions reduction goals of the Draft 2045 CAP were informed by the development assumptions of the adopted 2021–2029 Housing Element and the General Plan buildout conditions. The 2021–2029 Housing Element Program EIR concluded that, while the 2021–2029 Housing Element was consistent with the applicable air quality plan policies of the applicable air quality plans aimed at reducing air emissions and would not increase population or employment in the County, the 2021–2029 Housing Element would have the potential to exceed the applicable criteria pollutant mass daily thresholds. As the Draft 2045 CAP would not alter the development assumptions of the adopted 2021–2029 Housing Element, the Project would not be the cause of or alter the significant and unavoidable impact identified in the 2019 Program EIR.

⁹ The SCAG 2016–2040 RTP/SCS forecasts a 2040 population of 1,273,700 persons in unincorporated Los Angeles County (see Demographics & Growth Forecast Appendix [SCAG 2016]). The 2021–2029 Housing Element forecast a 2045 population of 1,258,000 (see Section 4.14 of Los Angeles County 2021). Given that the projected population in 2045 under the Draft 2045 CAP would be less than the projected population in 2040 in the SCAG 2016–2040 RTP/SCS, the Draft 2045 CAP would not conflict with the growth projections.

As discussed above in response to Criterion No. 1, the construction of future projects facilitated by the Draft 2045 CAP measures and actions could increase the frequency or severity of an existing violation or cause or contribute to new violations and impacts would be significant. However, the operation of future projects facilitated by the Draft 2045 CAP that would implement the Draft 2045 CAP measures and actions would not conflict with the applicable SCAQMD and AVAQMD air quality plan land use and transportation strategies that are intended to reduce VMT, reduce the frequency or severity of existing air quality violations or new violations, and achieve the timely attainment of air quality standards specified in the applicable air quality plan. As such, the Draft 2045 CAP would result in a less-than-significant impact related to a conflict or obstruction of implementation of applicable air quality plans with the exception of the potential for impacts during construction of future projects implementing Draft 2045 CAP measures and actions related to Criterion No. 1.

Measures and actions are included in the Draft 2045 CAP that would reduce air pollutant emissions. Nonetheless, the Draft 2045 CAP could conflict with Criterion No. 1 (numerical significance thresholds), causing a significant impact to result. The Draft 2045 CAP would not conflict with Criterion No. 2.

Mitigation Measure 3.4-1: Construction Emissions. If, during subsequent project-level environmental review, construction-related criteria air pollutants are determined to have the potential to exceed the applicable air quality management district (AQMD) adopted thresholds of significance, the lead agency shall require applicants for new projects facilitated by the Draft 2045 CAP measures and actions to incorporate mitigation measures to avoid or reduce air pollutant emissions during construction activities. Mitigation measures that may be identified during the environmental review include, but are not limited to:

- When wind gusts exceed 25 miles per hour, cease all active construction activities or follow the applicable guidelines outlined in Table 3 of SCAQMD Rule 403 or Sections (C)(10) through (C)(14) of AVAQMD Rule 403.
- Use construction equipment rated by the U.S. Environmental Protection Agency (USEPA) as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower, as commercially available.
- Ensure that construction equipment is properly serviced and maintained to the manufacturer's standards.
- Limit nonessential idling of construction equipment to no more than five consecutive minutes.
- Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering.
- Water all active construction areas at least three times daily or four times daily if needed to control dust emissions. Watering should be sufficient to prevent airborne visible dust from leaving the site. Where local water supplies are not available in sufficient quantities within unincorporated areas of the County, use nontoxic

chemical soil stabilizers or dust suppressants to control dust emissions in sufficient amounts to prevent airborne visible dust from leaving the site.

- Increase watering frequency and/or application frequency of nontoxic chemical soil stabilizers or dust suppressants whenever wind speeds exceed 25 miles per hour. Reclaimed water shall be used whenever possible.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).
- Pave, apply water three times daily or as often as necessary to control dust, or where local water supplies are not available in sufficient quantities within unincorporated areas of the County, apply (nontoxic) soil stabilizers or dust suppressants on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers using reclaimed water if possible), or as often as needed, all paved access roads, parking areas, and staging areas at the construction site to control dust.
- Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the Project site, or as often as needed, to keep streets free of visible soil material.
- Where local water supplies are not available in sufficient quantities within unincorporated areas of Los Angeles County, hydroseed or apply nontoxic chemical soil stabilizers or dust suppressants to inactive construction areas.
- Enclose, cover, water three times daily, or apply nontoxic chemical soil stabilizers or dust suppressants to exposed stockpiles (dirt, sand, etc.).

Mitigation Measure 3.4-2: Architectural Coating VOC Emissions. If, during subsequent project-level environmental review, it is determined that VOC emissions impacts may be significant, the lead agency shall require Super-Compliant VOC-content architectural coatings (0 grams per liter to less than 10 grams per liter VOC) to be used during construction and operational application of paints and other architectural coatings to reduce ozone precursors. If paints and coatings with VOC content of 0 grams/liter to less than 10 grams/liter cannot be utilized, the developer shall avoid application of architectural coatings during days when the USEPA, CARB, or SCAQMD has forecasted the Air Quality Index for ozone to be greater than 100 for the project location.

Significance after Mitigation: Future projects in the unincorporated County that would implement Draft 2045 CAP measures and actions would result in a significant and unavoidable impact related to Criterion No. 1 for construction regarding whether the Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would conflict with or obstruct the implementation of the applicable air quality plan. Implementation of Mitigation Measure 3.4-1 and Mitigation Measure 3.4-2 would reduce the severity of construction emissions. However, even with the implementation of the measures, these impacts are not accurately quantifiable at this time and may not be reduced to below the thresholds. As a result, the impact under Criterion No. 1 for construction would remain significant and unavoidable. No feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on

a programmatic level, and feasible mitigation may not be available for individual projects facilitated by the Draft 2045 CAP measures and actions. Impacts would be significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b) Whether the Project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

Impact 3.4-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, could result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard. (Significant and Unavoidable)

Implementation of Draft 2045 CAP measures and actions could result in construction and operational emissions that may cause a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment. The SCAB is designated under federal and state ambient air quality standards as nonattainment for ozone and PM_{2.5} and state nonattainment for PM₁₀. MDAB is designated under federal and state ambient air quality standards as nonattainment for ozone and state nonattainment for PM₁₀. Based on the most recently adopted significance thresholds in the SCAQMD *CEQA Air Quality Handbook* and the AVAQMD CEQA and Federal Conformity Guidelines, the Draft 2045 CAP would result in a significant impact of a federal or state nonattainment pollutant if emissions would exceed the values shown in **Table 3.4-6, Criteria Pollutant Emissions Significance Thresholds—Los Angeles County**.

**TABLE 3.4-6
CRITERIA POLLUTANT EMISSIONS SIGNIFICANCE THRESHOLDS—LOS ANGELES COUNTY**

Phase	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
South Coast Air Basin (Los Angeles County); Pounds per Day						
Construction	75	100	550	150	150	55
Operations	55	55	550	150	150	55
Antelope Valley Air Basin (Los Angeles County); Pounds per Day						
Construction	137	137	548	137	82	65
Operations	137	137	548	137	82	65
Antelope Valley Air Basin (Los Angeles County); Tons per Year						
Construction	25	25	100	25	15	12
Operations	25	25	100	25	15	12

NOTES: CO = carbon monoxide; NO_x = nitrogen oxides; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; PM₁₀ = inhalable particles with diameters that are generally 10 micrometers and smaller; SO_x = sulfur oxides; VOC = volatile organic compounds

SOURCES: SCAQMD 2019; AVAQMD 2016.

Construction Emissions

Emissions of ozone precursors, such as VOC and NO_x, are produced from the use of on-road and off-road motorized vehicles and heavy-duty construction equipment associated with construction activities. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Localized concentrations of construction-generated TAC emissions, including emissions of diesel particulate matter from diesel-powered equipment, can increase health risk for nearby sensitive receptors. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions.

Implementation of several of the Draft 2045 CAP measures would reduce construction emissions resulting from projects facilitated by the Draft 2045 CAP measures and actions within the unincorporated areas of the County. The Draft 2045 CAP transportation measures would expand the use of zero-emission technologies for off-road vehicles and equipment, per Measure T9, which would reduce construction emissions. However, building electrification (Measures E1 and E2), new renewable energy facilities (Measure ES3), energy storage (Measure ES4), building retrofits for energy efficiency (Measure E4), new or expanded recycled water facilities (Measure E5), new or expanded waste processing facilities (Measures W1 and W2), and demolition of impervious surfaces and planting trees (Measure A3) would result in construction activities that cause an increase in temporary air pollutant emissions.

The size and intensity of any future project facilitated by Draft 2045 CAP measures and actions would dictate whether the quantity of air pollutant emissions during construction are above or below the thresholds of significance. New facilities, such as new renewable energy facilities including LA County facilities and utility-scale solar and associated infrastructure (Measure ES3), new or expanded recycled water facilities (Measure E5), and new or expanded waste processing facilities (Measures W1 and W2), may occur as large construction projects. There is also the potential that the cumulative impact of multiple small-scale projects, such as multiple projects for building retrofits (Measure E4) and the demolition of impervious surfaces and planting of trees (Measure A3), could be significant from the construction of such future facilities and projects even with implementation of these Draft 2045 CAP measures.

Any future project developed within the County facilitated by Draft 2045 CAP measures and actions would be required to comply with SCAQMD and AVAQMD rules and regulations as well as conduct their own applicable CEQA analysis. Significance determinations would be based on the individual project specifics. Furthermore, future construction activities associated with the Draft 2045 CAP would be required to comply with the CARB Air Toxics Control Measure, which limits diesel-powered equipment and vehicle idling to no more than five minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle regulation, CARB Truck and Bus regulation, and CARB ACT regulation, which all require construction equipment and vehicle fleet operators to repower or replace higher-emitting equipment with less polluting models, including zero- and near-zero-emissions on-road truck technologies as they become developed and commercially available. Additionally, construction of projects facilitated by the Draft 2045 CAP measures and actions would be required to comply with SCAQMD and AVAQMD rules and regulations including Rule 403 for the control of fugitive dust and Rule 1113 for the control

of VOC emissions from architectural coatings (please note that both air districts share the same numbering system for these rules). Mandatory compliance with these CARB and SCAQMD rules and regulations would reduce emissions, particularly for NO_x, PM₁₀, and PM_{2.5}, during future construction activities of future projects facilitated by the Draft 2045 CAP.

Even with mandatory compliance with CARB, SCAQMD, and AVAQMD rules regulations, some future projects associated with implementation of Draft 2045 CAP measures and actions could be large enough in scale and/or intensity such that many pieces of heavy-duty construction equipment and/or heavy-duty trucks may be required and that construction period emissions could exceed the significance thresholds. Therefore, construction activities associated with future projects facilitated by Draft 2045 CAP measures and actions could result in significant criteria pollutant air quality impacts.

Operational Emissions

Implementation of the Draft 2045 CAP measures and actions could affect operational criteria pollutant emissions resulting from projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated County portion in the SCAB and MDAB from vehicle trips traveling within the County, energy sources such as natural gas combustion, and area sources such as landscaping equipment and consumer products usage.

Several Draft 2045 CAP measures promote additional transit facilities and operations as well as pedestrian and bicycle facilities to reduce vehicle fuel use by encouraging a shift in the mode of transportation that people use. Draft 2045 CAP measures T3 and T4 would expand bicycle and pedestrian infrastructure and encourage transit, active transportation, and alternative modes of transportation. Draft 2045 CAP measures W1 and W2 would divert organic waste and recyclable materials from landfills. These measures may result in new waste facilities such as composting facilities or recycling centers that have the potential to produce odor, dust, and other emissions during operation but the increased waste diversion from landfills would reduce regional Countywide vehicle trips and VMT. Any projects facilitated by Draft 2045 CAP measures and actions would not represent a change in local land use policies.

The Draft 2045 CAP includes measures that promote mixed-use and transit-oriented development in city centers, consistent with existing land use plans. While implementation of the Draft 2045 CAP measures would reduce overall Countywide vehicle trips and VMT, the reduction would not necessarily occur evenly throughout the unincorporated County areas. The Draft 2045 CAP would encourage mixed-use development (Measure T2) and place residential density near transit (Measure T1), which would reduce VMT within the County. The Draft 2045 CAP itself does not propose any change to existing General Plan land use or zoning designations for any parcel in the unincorporated areas of the County. Implementation of the Draft 2045 CAP relies on already-adopted General Plan land use and zoning designations to achieve densification and associated reductions in regional Countywide vehicle trips and VMT. In other words, local increases in density could occur with or without adoption of the Draft 2045 CAP based on the existing General Plan land use and zoning designations. Thus, the Draft 2045 CAP would not cause a large increase of traffic volumes on local roadways from local increases in density beyond what

already is planned and previously analyzed based on the existing General Plan land use and zoning designations.

Operational emissions from projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated areas of the County would be further reduced as electric vehicles (Measures T6, T7, and T8), renewable energy use (Measures ES2 and ES3), building electrification (Measures E1 and E2), and other decarbonization actions (Measure E3) become more widespread. Draft 2045 CAP Measures E5 and E6 would additionally reduce operational emissions from energy sources required to move water while Draft 2045 CAP Measures ES5 and E4 would reduce energy use and demand. Operations of new buildings would be required to adhere to the applicable codes, regulations, and policies including the 2022 or latest Title 24 Green Building Code.

However, projects facilitated by the Draft 2045 CAP measures and actions could create significant criteria pollutant emissions if they would include a sufficiently large number of operational emissions sources or intensive operational uses or processes. For instance, Draft 2045 CAP Measure ES3 would expand local solar power generation on existing and new development throughout the County and at LA County facilities and provide for utility-scale solar and associated infrastructure. Incorporation of solar infrastructure on existing or new developments in the County and at LA County facilities and utilities (Measure ES3) would likely require ongoing maintenance (e.g., for cleaning solar photovoltaic panels and repair or replacement from general wear and malfunctioning components). New or expanded waste processing facilities (Measures W1 and W2) could require new stationary sources of emissions for waste treatment processes and mobile sources of emissions for the transport of materials.

Impacts of projects facilitated by the Draft 2045 CAP measures and actions would be reduced by policies implemented under General Plan. Some of these policies, listed in Section 3.4.1.3, would reduce emissions and could address impacts. Projects facilitated by the Draft 2045 CAP also would be required to conduct their own CEQA analysis. Significance determinations would be based on individual project specifics. Individual projects with emissions that exceed the thresholds normally would result in a significant impact and require mitigation. Projects facilitated by Draft 2045 CAP measures and actions could result in additional operational emission sources that are not listed above or for which specifics are not known. Thus, even with mandatory compliance with CARB, SCAQMD, and AVAQMD rules and regulations, some future projects facilitated by the Draft 2045 CAP could result in significant impacts related to a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment. Therefore, operational activities associated with projects facilitated by the Draft 2045 CAP measures and actions could result in significant regional air quality impacts.

Health Impacts from Construction and Operational Emissions

The California Supreme Court decision in *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 resulted in the need for CEQA documents to address human health impacts of regional criteria pollutant emissions that exceed air district standards. Because regional emissions may exceed the SCAQMD and AVAQMD regulatory thresholds during construction and operational activities, there is the potential that these emissions would exceed the CAAQS and NAAQS thus resulting

in a health impact. For example, breathing ground-level ozone (which is produced from emissions of NO_x and VOC) can have health impacts that include reduced lung function, inflammation of airways, throat irritation, pain, burning, or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. Exposure to PM₁₀ has been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits. Exposure to PM_{2.5} has been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, restricted activity days, and long-term exposure to PM_{2.5} has been linked to premature death. Health impacts of criteria pollutants are further discussed in Section 3.4.1.2.

The SCAQMD, AVAQMD, CARB, and USEPA have not approved a quantitative method to reliably, meaningfully, and consistently translate the mass emission estimates for the criteria air pollutants resulting from individual future projects facilitated by the Draft 2045 CAP to specific health impacts. There are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health impacts or potential additional nonattainment days. The SCAQMD submitted an amicus brief that indicates it is not feasible to quantify project-level health impacts based on the available modeling tools (SCAQMD 2015).

Further, without knowing the exact specifications for projects that may be facilitated by the Draft 2045 CAP, there is no way to accurately calculate the potential for health impacts from the Draft 2045 CAP. Individual projects facilitated by the Draft 2045 CAP measures and actions would be required to provide their own environmental analyses to determine health impacts from the construction and operation. To the extent that such projects would generate emissions during construction and operations and could exceed air district construction significance thresholds, they would contribute to the health impacts of the criteria pollutants described in Section 3.4.1.2.

The following mitigation measures would reduce construction-related and operational impacts.

Mitigation Measure: Implement Mitigation Measure 3.4-1 and Mitigation Measure 3.4-2.

Mitigation Measure 3.4-3: Enhanced Energy Conservation. If, during subsequent project-level environmental review, it is determined that operational emissions impacts may be significant, the lead agency shall require the project to incorporate enhanced energy conservation measures beyond those required by federal or state law, LA County ordinance, and the Draft 2045 CAP measures and actions to reduce energy-related emissions. Enhanced energy conservation measures shall include one or more of the following as applicable:

- Install Energy Star rated heating, cooling, lighting, and appliances.
- Use of heating, ventilation, and air conditioning equipment with a Seasonal Energy Efficiency Ratio of 12 or higher.
- Installation of water heaters with an energy factor of 0.92 or higher.

- Install solar water heaters or tankless water heaters.
- Use passive solar cooling/heating.
- Reduce building natural gas infrastructure, use renewable natural gas in place of fossil fuel–derived natural gas, or eliminate building natural gas infrastructure and fully electrify buildings.

Mitigation Measure 3.4-4: Low-VOC/Green Cleaning Product Educational Program. If, during subsequent project-level environmental review, it is determined that operational emissions impacts may be significant, the lead agency shall require the project applicant or developer to provide tenants and residents with information about low-VOC/green cleaning products and paints, including materials educating how to identify low-VOC cleaners and products.

Significance after Mitigation: Future projects in the unincorporated areas of the County facilitated by Draft 2045 CAP measures and actions would result in a significant and unavoidable impact related to a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment during construction and operations due to the potential for individual future projects implementing Draft 2045 CAP measures and actions to exceed the significance thresholds. Implementation of Mitigation Measures 3.4-1, 3.4-2, 3.4-3, and 3.4-4 would help to reduce the severity of the impacts. However, even with implementation of the measures, impacts may not be reduced to below the thresholds (and impacts would remain significant and unavoidable) because no feasible mitigation measures are available that would reduce impacts below SCAQMD’s or AVAQMD’s thresholds on a programmatic level and because feasible mitigation may not be available for individual projects facilitated by the Draft 2045 CAP. Impacts would be significant and unavoidable. No additional feasible mitigation measures are available.

Criterion c) Whether the Project would expose sensitive receptors to substantial pollutant concentrations.

Impact 3.4-3a: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would expose sensitive receptors to substantial pollutant concentrations for localized air pollutants and TAC emissions. (*Significant and Unavoidable*)

Future projects facilitated by the Draft 2045 CAP measures and actions could expose sensitive receptors to pollutant concentrations from localized emissions near future project sites. In addition to these localized impacts, vehicle travel associated with projects facilitated by the Draft 2045 CAP could result in exposure of sensitive receptors to CO emissions from intersection congestion. Based on the nature and extent of new projects, nearby sensitive receptors could be exposed to levels of toxic air contaminants that could result in a potential increase in cancer, acute, and/or chronic risk.

Based on the thresholds in the SCAQMD *Final Localized Significance Threshold Methodology* (SCAQMD 2008), the Draft 2045 CAP would cause a significant impact if maximum daily localized emissions of NO_x, CO, PM₁₀, and PM_{2.5} during construction or operation were greater than the applicable localized significance thresholds, resulting in predicted ambient

concentrations at air quality-sensitive receptors greater than the most stringent ambient air quality standards for NO₂ and/or CO. **Table 3.4-7** provides SCAQMD ambient concentration-based significance thresholds for emissions that may expose sensitive receptors to substantial pollutant concentrations. SCAQMD screening mass emissions levels that could cause an exceedance of the ambient concentration thresholds vary depending on the location (e.g., source-receptor area) of a project site, the size of a project site, and the distance from a project site to an air quality-sensitive receptor and are provided in Appendix C of the SCAQMD *Final Localized Significance Threshold Methodology* (SCAQMD 2008).

**TABLE 3.4-7
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AIR QUALITY SIGNIFICANCE THRESHOLDS**

Ambient Air Quality Standards for Criteria Pollutants ^a	
NO₂ 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)
PM₁₀ 24-hour average annual average	10.4 µg/m ³ (construction) ^b and 2.5 µg/m ³ (operation) 1.0 µg/m ³
PM_{2.5} 24-hour average	10.4 µg/m ³ (construction) ^b and 2.5 µg/m ³ (operation)
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)

NOTES:

µg/m³ = micrograms per cubic meter; CO = carbon monoxide; NO₂ = nitrogen dioxide; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; PM₁₀ = inhalable particles with diameters that are generally 10 micrometers and smaller; ppm = parts per million; SCAQMD = South Coast Air Quality Management District

a. Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated

b. Ambient air quality threshold based on SCAQMD Rule 403.

SOURCE: SCAQMD 2019.

The Project would result in a significant impact for CO hotspots if the concentrations of CO at a roadway intersection within 0.25 mile of an air quality-sensitive receptor would exceed the CO 1-hour and/or 8-hour concentration limits in Table 3.4-7. Based on the thresholds in the SCAQMD CEQA Air Quality Handbook, and the AVAQMD CEQA and Federal Conformity Guidelines, the Project would cause a significant impact by exposing air quality-sensitive receptors to toxic air contaminants if it would emit toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or an acute or chronic Hazard Index of 1.0.

Construction Emissions

Construction of future individual projects in the unincorporated areas of the County that would be facilitated by Draft 2045 CAP measures and actions could create localized air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers and haul trips traveling to and from project sites in the SCAB and the MDAB.

In addition, fugitive dust emissions would result from construction activities. During the finishing phase, the application of architectural coatings (e.g., paints) and other building materials would release VOCs. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The SCAQMD suggests that a Localized Significance Threshold analysis be conducted on a project-level using on-site mass emission look-up screening tables or project-specific air dispersion modeling (SCAQMD 2008).

Concentrations of TACs are used as indicators of ambient air quality conditions. Sensitive receptors may be located within close proximity to future projects facilitated by the Draft 2045 CAP. The SCAQMD and AVAQMD recommend that construction health risk assessments be conducted for substantial sources of DPM emissions (e.g., projects with substantial diesel-powered construction activities, such as earth-moving or excavation) in proximity to sensitive receptors and has provided guidance for analyzing mobile-source diesel emissions. Localized DPM emissions strongly correlate with localized PM_{2.5} emissions. However, localized analysis does not directly measure health risk impacts. Therefore, future projects facilitated by the Draft 2045 CAP may require project-specific dispersion modeling to evaluate potential health risk impacts associated with construction.

No specific projects are included in the Draft 2045 CAP. No information currently is available regarding specific projects that could be facilitated by the Draft 2045 CAP. Other details necessary to provide a meaningful estimate of emissions also is lacking, such as specific sites, buildings and facilities to be constructed or modified, construction schedules, and quantities of earthmoving. Because this information is unknown, localized emissions modeling is not feasible and would be speculative.

Each future project facilitated by the Draft 2045 CAP measures and actions would be required to conduct its own CEQA analysis. Significance determinations would be based on the individual project's specifics. Through each project's individual environmental review process, localized emissions may be quantified and compared against project-specific thresholds. Individual projects that exceed the thresholds would normally be considered to have significant impacts and require mitigation. New facilities, such as new renewable energy facilities including LA County facilities and utility-scale solar and associated infrastructure (Measure ES3), new or expanded recycled water facilities (Measure E5), and waste processing facilities (Measures W1 and W2), may occur as large construction projects; a significant air quality impact could result from the construction of such future facilities even with implementation of these Draft 2045 CAP measures. In addition, because future projects facilitated by the Draft 2045 CAP could occur close to existing sensitive receptors, construction of measures facilitated by the Draft 2045 CAP could expose sensitive receptors to substantial pollutant concentrations. Construction equipment exhaust combined with fugitive particulate matter emissions could expose sensitive receptors to substantial concentrations of criteria air pollutant emissions, DPM or TACs, resulting in a significant impact.

Operational Emissions

The SCAQMD recommends the evaluation of localized air quality impacts on sensitive receptors in the immediate vicinity of a project. However, the impacts are based on specific equipment and

operations. Because the exact nature, location, timing, and operation of the future projects facilitated by the Draft 2045 CAP measures and actions are unknown, quantification of localized operational impacts and health risks would not be feasible and would be speculative. Land uses that have the potential to generate substantial stationary sources of emissions that would require a permit from SCAQMD include industrial land uses. Future projects facilitated by the Draft 2045 CAP measures and actions may include the use of heavy-duty equipment; however, implementation of the Draft 2045 CAP measures and actions would substantially reduce vehicle gasoline and diesel usage (see, e.g., Measures T6 and T8). Operational emissions from projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated areas of the County would be further reduced as renewable energy use (Measures ES2 and ES3), building electrification (Measures E1 and E2), and other decarbonization actions (Measure E3) are implemented. Operations of new buildings would be required to adhere to the applicable codes, regulations, and policies including the 2022 or future versions of the Title 24 Green Building Code applicable at the time of building permit applications for future projects facilitated by the Draft 2045 CAP. The operation of some projects facilitated by Draft 2045 CAP 2045 measures and actions may occur within proximity to sensitive receptors; however, implementation of the Draft 2045 CAP would substantially reduce fossil fuel use and associated emissions, and so would reduce the potential for localized emissions to expose sensitive receptors to substantial pollutant concentrations.

Impacts of projects facilitated by the Draft 2045 CAP measures and actions would be required to implement applicable policies under the General Plan. Some of these policies, listed in Section 3.4.1.3, would reduce emissions and could address impacts. Further, it is expected that implementation of Draft 2045 CAP measures and actions would achieve emission reductions based on reducing fossil fuel use throughout the unincorporated areas of the County. Nonetheless, the potential remains for future projects facilitated by Draft 2045 CAP measures and actions to expose sensitive receptors to substantial criteria pollutant concentrations. Projects facilitated by Draft 2045 CAP measures and actions could create significant localized emissions for those that would include a sufficiently large number of operational emissions sources or intensive operational uses or processes. For instance, incorporation of solar infrastructure on existing or new developments in the County and at LA County facilities and utilities (Measure ES3) would likely require ongoing maintenance (e.g., for cleaning solar photovoltaic panels and repair or replacement from general wear and malfunctioning components). New or expanded waste processing facilities (Measures W1 and W2) could require new stationary sources of emissions for waste treatment processes. Therefore, operational activities associated with projects facilitated by the Draft 2045 CAP measure and actions could result in significant localized air quality impacts.

Carbon Monoxide Hotspots

The potential for projects facilitated by the Draft 2045 CAP measures and actions to cause or contribute to CO hotspots is evaluated by comparing project intersections (both intersection geometry and traffic volumes) with prior studies conducted by SCAQMD in support of their AQMPs and considering existing background CO concentrations. As discussed below, this comparison demonstrates that the Project would not cause or contribute considerably to the

formation of CO hotspots, and that CO concentrations at project intersections would remain well below the ambient air quality standards.

CO levels in the unincorporated areas of the County are below the NAAQS and CAAQS as the County portion of the SCAB and MDAB are designated as attainment. Maximum CO levels in recent three years are 1.2 to 4.5 ppm (1-hour average) and 0.8 to 4.7 ppm (8-hour average). CO levels decreased dramatically in California with the introduction of the catalytic converter in 1975. No exceedances of CO have been recorded at monitoring stations in the SCAB since 2003 and both the SCAB and MDAB are designated as CO attainment areas for both the CAAQS and NAAQS (SCAQMD 2017). Thus, it is not expected that CO levels at roadway intersections would rise to the level of an exceedance of these standards.

Furthermore, CO emissions from vehicles have substantially reduced compared to 2003-era vehicles based on improved vehicle emissions standards and are presumed not to exceed the applicable thresholds. Thus, this comparison demonstrates that the Project would not contribute considerably to the formation of CO hotspots and no further CO analysis is required. The Project would result in a less-than-significant impact with respect to CO hotspots.

Toxic Air Contaminants

Construction and operation of projects facilitated by the Draft 2045 CAP could result in TAC emissions, e.g., DPM emissions, particularly from on- and off-road vehicles during construction activities. Exposure to TACs can produce lifetime cancer risk or short-term chronic or acute non-cancer risk. Construction activities from future projects facilitated by the Draft 2045 CAP could generate TAC emissions from heavy-duty construction equipment and trucks. New facilities, such as new renewable energy facilities (Measure ES3), new or expanded recycled water facilities (Measure E5), and waste processing facilities (Measures W1 and W2), may occur as large construction projects. However, implementation of the Draft 2045 the CAP would substantially reduce fossil fuel use and associated TAC emissions from operational activities as a result of renewable energy use (Measures ES2 and ES3), building electrification (Measures E1 and E2), and other decarbonization actions (Measure E3) are implemented.

Because the exact nature, location, timing, and operation of projects facilitated by Draft 2045 CAP measures and actions are unknown, and because health risk impacts from TACs are cumulative over the life of the nearby receptors, quantification of potential health risks would be speculative. However, because construction and operation of these future projects may occur close to sensitive receptors, there is the potential for health risk level to exceed air district thresholds of significance, which could cause the adverse health impacts discussed in Section 3.4.1.2. Therefore, projects facilitated by the Draft 2045 CAP measures and actions could expose sensitive receptors to substantial TAC concentrations. This would be a significant impact. The impacts of projects facilitated by the Draft 2045 CAP measures and actions would be analyzed on a project-specific basis and, if it is determined that such a project would exceed air district thresholds of significance, mitigation measures would be implemented to avoid or reduce the impact if feasible.

Mitigation Measure: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

Mitigation Measure 3.4-5: Stationary Sources. Applicants for new or modified stationary sources facilitated by the Draft 2045 CAP measures and actions that: (1) have the potential to generate 40 or more diesel trucks per day and (2) are located within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the LA County Department of Regional Planning prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the applicable air quality management district. If the HRA shows that the incremental cancer risk exceeds ten in one million ($10E-06$), particulate matter concentrations would exceed $2.5 \mu\text{g}/\text{m}^3$, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the project.

Mitigation Measure 3.4-6: Health Risk Assessment. Applicants shall submit a health risk assessment (HRA) to LA County prior to future discretionary project approval for sensitive land uses facilitated by the Draft 2045 CAP measures and actions within the following distances as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, from these facilities:

- Industrial facilities within 1,000 feet
- Distribution centers (40 or more trucks per day) within 1,000 feet
- Major transportation projects (50,000 or more vehicles per day) within 1,000 feet
- Gasoline dispensing facilities within 300 feet

The HRA shall be prepared in accordance with policies and procedures of the applicable Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds ten in one million ($10E-06$) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to:

- Air intakes located away from high-volume roadways and/or truck loading zones, unless it can be demonstrated to the LA County Department of Regional Planning that there are operational limitations.
- Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters.

Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the Project. The air intake design and MERV filter requirements shall be

noted and/or reflected on all building plans submitted to LA County and shall be verified by the LA County Department of Regional Planning.

Significance after Mitigation: The Draft 2045 CAP would result in a significant and unavoidable impact related to exposure of sensitive receptors to substantial pollutant concentrations. The implementation of the identified mitigation measures would help to reduce the severity of the impacts related to localized emissions and TAC emissions. However, impacts from construction- and operational-related localized emissions and TAC emissions may not be reduced to below the thresholds and, under such conditions, impacts would remain significant and unavoidable. No feasible mitigation measures are available that would reduce impacts related to construction-related localized emissions and TAC emissions to below SCAQMD's or AVAQMD's thresholds on a programmatic level and feasible mitigation may not be available for individual projects facilitated by Draft 2045 CAP measures and actions. Impacts would be significant and unavoidable. No additional feasible mitigation measures are available.

Impact 3.4-3b: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not expose sensitive receptors to substantial pollutant concentrations relating to Valley Fever. (*Less than Significant*)

Valley Fever is an infective disease caused by the fungus *Coccidioides immitis*. Infection occurs via inhalation of *Coccidioides immitis* spores that have become airborne from the upturn of dry, dusty soil by wind, construction, farming, or other activities. Several factors indicate a project's potential to expose sensitive receptors to Valley Fever: disturbance of the top soil of undeveloped land, dust storms, strong winds, earthquakes, archaeological digs, agricultural activities, and construction activities. *Coccidioides immitis* spores are often found in the soil around rodent burrows, Indian ruins, and burial grounds. The ecological factors that appear to be most conducive to the survival and replication of the fungal spores are high summer temperatures, mild winters, sparse rainfall, and alkaline, sandy soils.

Construction activities for projects facilitated by Draft 2045 CAP measure and actions could result in exposure of sensitive receptors to Valley Fever in the arid, desert portions of the unincorporated areas. In particular, projects facilitated by the Draft 2045 CAP measures and actions that require construction activities that disturb topsoil, especially of undeveloped land, have the potential to cause *Coccidioides immitis* spores in soil to become airborne. Compliance with rules and other measures that reduce emissions of fugitive dust, such as SCAQMD Rule 403 and AVAQMD Rule 403, would also reduce the potential for *Coccidioides immitis* spores in soil to become airborne. Construction workers and other people who work outdoors and who are exposed to wind and dust are more likely to contract Valley Fever. Thus, projects facilitated by the Draft 2045 CAP measures and actions have the potential to expose persons to the spores that cause Valley Fever from fugitive dust generated during construction, which would be a significant impact.

Compliance with independently enforceable obligations, principally including SCAQMD and AVAQMD fugitive dust control rules (e.g., Rule 403), and applicable California Division of Occupational Safety and Health (Cal/OSHA) requirements for protection of construction workers (Cal/OSHA 2022), would reduce impacts to a less-than-significant level. Such compliance would

require the control and mitigation of all sources of construction-related fugitive dust, and thereby potential sources of airborne *Coccidioides immitis* spores, to at or below applicable regulatory limits (i.e., SCAQMD Rule 403 or AVAQMD Rule 403). Although CEQA does not require mitigation for less-than-significant impacts such as this one, the fugitive dust control requirements included in Mitigation Measure 3.4-1 would further reduce Impact.

Criterion d) Whether the Project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Impact 3.4-4: The Draft 2045 CAP measures and actions would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (Less-than-Significant Impact)

Other emissions, such as those leading to odors, typically are associated with industrial developments involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes. Odors also are associated with such uses as sewage treatment facilities and landfills. Pollutant emissions, such as odorous emissions, could be facilitated by projects implementing Draft 2045 CAP measures and actions; however, as discussed below, such odors would not cause a significant impact by adversely affecting a substantial number of people.

Common sources of odors from development within a community may include the use of VOC-containing architectural coatings and solvents, composting and organic waste management, municipal solid waste collection areas, and transfer stations and material recovery facility operations. The AVAQMD and SCAQMD have adopted rules for controlling nuisance emissions, such as those leading to odors, from community sources. AVAQMD Rule 402 and SCAQMD Rule 402 both prohibit emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. The AVAQMD and SCAQMD both regulate the VOC content of architectural coatings and solvents via several adopted rules including Rules 442, 1107, 1113, and 1171, as numbered by both air districts. The SCAQMD, which has jurisdiction over an area with a substantially greater population density than the AVAQMD, has adopted additional source-specific rules that assist in controlling odors including Rule 410 for controlling odors from transfer stations and material recovery facilities and Rule 1138 for controlling emissions from restaurant cooking operations. While the AVAQMD has no rules identical to SCAQMD Rule 410 and Rule 1138, potential odorous emissions still would be subject to the overall nuisance requirements in Rule 402. For composting and related operations, SCAQMD Rules 1133, 1133.2, and 1133.3 and AVAQMD Rule 1133 requires the reduction of potentially odorous emissions of VOCs and ammonia from composting and related operations. Future projects facilitated by the Draft 2045 CAP measures and actions would be required to comply with all applicable regulatory requirements for controlling emissions such as those leading to odors. Furthermore, the Draft 2045 CAP would support development already allowed under the General Plan land use assumptions with the 2021–2029 Housing Element and no changes to land use designations are proposed. Thus, the Draft 2045 CAP would not increase exposure of people to other emissions such as those leading to odors, and would not have the potential to generate

odors that affect a substantial number of people. Impacts from adoption of the Draft 2045 CAP would be less than significant.

Mitigation: None required.

3.4.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts to air quality, the geographic area of consideration includes the SCAB and MDAB. Cumulative impacts could result at various locations within this area from initiation of any emissions-causing activity in furtherance of a project facilitated by Draft 2045 CAP measures and actions until such projects are decommissioned and the sites restored.

The SCAQMD recommends using two methodologies to assess the cumulative impact of air quality emissions: (1) a project's consistency with the current AQMP be used to determine its potential cumulative impacts, or (2) that project-specific air quality impacts be used to determine the project's potential cumulative impacts to regional air quality (SCAQMD 2003).¹⁰ The AVAQMD's approach to assessing cumulative impacts is similar to that performed for direct and indirect impacts as they relate to similar project types.

Criterion a)

Impact 3.4-5: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a cumulatively considerable contribution to a significant cumulative impact due to a conflict with or obstruction of implementation of the applicable air quality plan. (*Significant and Unavoidable Cumulative Impact*)

For purposes of the cumulative air quality analysis with respect to conflicts with or obstruction of implementation of the applicable air quality plan, the Draft 2045 CAP cumulative air quality impacts are determined to be significant based on its potential to: (i) result in an increase in the frequency or severity of existing air quality violations; (ii) cause or contribute to new air quality violations; or (iii) delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (Criterion No. 1). Construction of future projects facilitated by Draft 2045 CAP measures and actions could increase the frequency or severity of an existing violation or cause or contribute to new violations and impacts would be significant. However, the operation of future projects facilitated by the Draft 2045 CAP that would implement the Draft 2045 CAP measures and actions would not conflict with the applicable SCAQMD and AVAQMD air quality plan land use and transportation strategies that are intended to reduce VMT, reduce the frequency or severity of existing air quality violations or new violations, and achieve the timely attainment of air quality standards specified in the applicable air quality plan.

¹⁰ SCAQMD, Potential Control Strategies to Address Cumulative Impacts from Air Pollution White Paper, Appendix D, 1993, page D-3 ("As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR... Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.").

As such, the Draft 2045 CAP, in combination with the incremental impacts of past, present and reasonably foreseeable projects, would result in a significant cumulative impact related to a conflict or obstruction of implementation of applicable air quality plans for construction emissions, but a less-than-significant cumulative impact related to a conflict or obstruction of implementation of applicable air quality plans for operational emissions. The Project's contribution to this impact would be cumulatively considerable, and therefore significant.

Mitigation Measure: Implement Mitigation Measures 3.4-1 and 3.4-2.

Significance after Mitigation: Future projects in the unincorporated County that would implement Draft 2045 CAP measures and actions would result in a significant and unavoidable cumulative impact related to Criterion No. 1 for construction regarding whether the Project would conflict with or obstruct the implementation of the applicable air quality plan. Implementation of Mitigation Measures 3.4-1 and 3.4-2 would reduce the severity of construction emissions. However, even with the implementation of the measures, these cumulative impacts are not accurately quantifiable at this time and may not be reduced to below the thresholds. No feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a programmatic level, and feasible mitigation may not be available for individual projects facilitated by the Draft 2045 CAP measures and actions. Impacts would be cumulatively considerable, and significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b)

Impact 3.4-6: The Draft 2045 CAP would make a cumulatively considerable contribution to a significant cumulative impact to air quality associated with criteria pollutants. (*Significant and Unavoidable Cumulative Impact*)

The SCAQMD no longer recommends relying solely upon consistency with the AQMP as an appropriate methodology for assessing cumulative air quality impacts. The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality because projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

The AVAQMD's approach to assessing cumulative impacts is similar to that performed for direct and indirect impacts as they relate to similar project types. The Los Angeles County portion of the MDAB is currently in nonattainment for ozone.

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or California nonattainment pollutant. Because the Los Angeles County portion of the SCAB is currently in nonattainment for ozone, NO₂, PM₁₀, and PM_{2.5}, and the Los Angeles County portion of the MDAB is currently in nonattainment for ozone, cumulative projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance.

With respect to construction-related emissions from even with mandatory compliance with CARB, SCAQMD, and AVAQMD rules regulations, some future projects associated with implementation of Draft 2045 CAP measures and actions could be large enough in scale and/or intensity such that many pieces of heavy-duty construction equipment and/or heavy-duty trucks may be required and that construction period emissions could exceed the significance thresholds. Therefore, construction activities associated with future projects facilitated by Draft 2045 CAP measures and actions could result in cumulatively considerable contributions to cumulatively significant air quality impacts.

Similarly, with respect to operational-related emissions from future projects associated with implementation of Draft 2045 CAP measures and actions, even with mandatory compliance with CARB, SCAQMD, and AVAQMD rules and regulations, some future projects facilitated by the Draft 2045 CAP could result in significant impacts related to a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment. Therefore, operational activities associated with projects facilitated by the Draft 2045 CAP measure and actions could result in cumulatively considerable contributions to cumulatively significant air quality impacts.

Based on the above analysis, the Draft 2045 CAP's air quality impacts in both air basins would be cumulatively considerable, and therefore significant.

Mitigation Measure: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

Significance after Mitigation: Future projects in the unincorporated areas of the County facilitated by Draft 2045 CAP measures and actions would result in a significant and unavoidable impact related to a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment during construction and operations due to the potential for individual future projects implementing Draft 2045 CAP measures and actions to exceed the significance thresholds. Implementation of Mitigation Measures 3.4-1, 3.4-2, 3.4-3, and 3.4-4 would help to reduce the severity of the impacts. However, even with implementation of the measures, impacts may not be reduced to below the thresholds (and impacts would remain significant and unavoidable) because no feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a programmatic level and because feasible mitigation may not be available for individual projects facilitated by the Draft 2045 CAP. Impacts would be significant and unavoidable. No additional feasible mitigation measures are available.

Criterion c)

Impact 3.4-7: The Project, as a result of projects facilitated by the Draft 2045 CAP, could contribute to a significant cumulative impact to air quality associated with localized air pollutant and TAC emissions. (*Significant and Unavoidable Cumulative Impact for localized air pollutant and TAC emissions; Less-than-Significant Cumulative Impact for Valley Fever*)

As discussed above, the SCAQMD guidance on an acceptable approach to addressing the cumulative impacts issue for air quality states that cumulative health risk impacts uses "the same

significance thresholds... for project specific and cumulative impacts.”¹¹ The SCAQMD has not adopted a separate quantitative threshold applicable to cumulative localized air pollutant emissions or health risk assessments. Similarly, the AVAQMD has not adopted a separate quantitative threshold applicable to cumulative localized air pollutant emissions or health risk assessments. Thus, cumulative impacts are based on the thresholds used for project-specific impacts.

As discussed above, construction and operation of projects facilitated by the Draft 2045 CAP measures and actions could result in localized emissions and TAC emissions, e.g., DPM emissions, particularly from on- and off-road vehicles during construction activities. New facilities, such as new renewable energy facilities (Measure ES3), new or expanded recycled water facilities (Measure E5), and waste processing facilities (Measures W1 and W2), may occur as large construction projects. Implementation of the Draft 2045 CAP would substantially reduce fossil fuel use and regional emissions from operational activities as a result of building electrification (Measures E1 and E2) and other decarbonization actions (Measure E3) are implemented; however, the potential remains for future projects facilitated by Draft 2045 CAP measures and actions to expose sensitive receptors to substantial pollutant concentrations. Projects facilitated by the Draft 2045 CAP measures and actions could create significant localized emissions for those that would include a sufficiently large number of construction or operational emissions sources or intensive construction or operational uses or processes. For instance, incorporation of solar infrastructure on existing or new developments in the County and at LA County facilities and utilities (Measure ES3) would likely require on-going maintenance (e.g., for cleaning solar photovoltaic panels and repair or replacement from general wear and malfunctioning components). New or expanded waste processing facilities (Measures W1 and W2) could require new stationary sources of emissions for waste treatment processes. Therefore, construction and operational activities associated with projects facilitated by the Draft 2045 CAP measure and actions could result in significant localized air quality and TAC emission impacts.

Because the exact nature, location, timing, and operation of these future projects are unknown, and because health risk impacts from TACs are cumulative over the life of the nearby receptors, quantification of potential localized emissions and health risks would be speculative. However, multiple future projects (projects facilitated by the Draft 2045 CAP together with other cumulative projects) could result in localized and TAC emissions within a localized area that could expose receptors located near the multiple future projects to TAC emissions that could result in health risk impacts. While such potential health risks cannot be quantified at this time, mitigation measures may not be able to reduce impacts below SCAQMD’s or AVAQMD’s significance thresholds. Therefore, cumulative localized and health risk impacts from criteria air pollutant and TAC emissions would be significant, and the Project’s contribution to this impact would be cumulatively considerable and therefore significant.

¹¹ SCAQMD, *Cumulative Impacts White Paper*, Appendix D. The White Paper states that the “only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The Project specific (project increment) significance threshold is $HI > 1.0$ while the cumulative (facility-wide) is $HI > 3.0$.” However, this is in reference to the HI from the total combined (i.e., cumulative) sources at a stationary source facility and is not directly applicable to the 2021 Project. The 2021 Project uses an HI of 1.0, which is a lower threshold.

Construction activities for projects facilitated by Draft 2045 CAP measure and actions could result in exposure of sensitive receptors to Valley Fever in the arid, desert portions of the unincorporated areas. However, all projects (projects facilitated by the Draft 2045 CAP as well as other cumulative projects) would be required to comply with rules and other measures that reduce emissions of fugitive dust, such as SCAQMD Rule 403 and AVAQMD Rule 403, which would reduce the potential for *Coccidioides immitis* spores in soil to become airborne. Compliance with independently enforceable obligations, including SCAQMD and AVAQMD fugitive dust control rules (e.g., Rule 403), and applicable Cal/OSHA requirements for protection of construction workers (Cal/OSHA 2022)) would reduce impacts to a less-than-cumulatively considerable and therefore less-than-significant level because compliance would require the control and mitigation of all sources of construction-related fugitive dust, and thereby potential sources of airborne *Coccidioides immitis* spores, to at or below applicable regulatory limits. II

The mitigation identified would be required to reduce the Project's incremental contribution to significant cumulative impacts relating to localized air pollutants and TAC emissions. No mitigation would be needed to reduce the Project's incremental contribution to cumulative impacts relating to Valley Fever.

Mitigation Measure: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, 3.4-5, and 3.4-6.

Significance after Mitigation: Future projects facilitated by Draft 2045 CAP measure and actions may result in localized air pollutant and TAC emissions that could exceed the SCAQMD and AVAQMD significance thresholds. However, even with implementation of Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, 3.4-5, and 3.4-6, the impacts related to localized and TAC emissions and associated health risk impacts would be cumulatively considerable and thus significant and unavoidable. No feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a programmatic level, and feasible mitigation may not be available for future projects facilitated by the Draft 2045 CAP. Impacts would be significant and unavoidable. No additional feasible mitigation measures are available.

Criterion d)

Impact 3.4-8: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not make a cumulatively considerable contribution to a significant cumulative impact due to other emissions (such as those leading to odors) adversely affecting a substantial number of people. (*Less-than-Significant Cumulative Impact*)

The SCAQMD and AVAQMD have not adopted separate cumulative thresholds applicable to other emissions (such as those leading to odors). Thus, cumulative impacts are based on the thresholds used for project-specific impacts.

Past, present, and reasonably foreseeable future projects (in combination with projects implementing Draft 2045 CAP measures and actions) could include common sources of odors associated with development within a community including the use of VOC-containing architectural coatings and solvents, composting and organic waste management, municipal solid

waste collection areas, and transfer stations and material recovery facility operations. The AVAQMD and SCAQMD have adopted rules for controlling nuisance emissions, such as those leading to odors, from community sources.

AVAQMD Rule 402 and SCAQMD Rule 402 both prohibit emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. The AVAQMD and SCAQMD both regulate the VOC content of architectural coatings and solvents via several adopted rules including Rules 442, 1107, 1113, and 1171, as numbered by both air districts. The SCAQMD, which has jurisdiction over an area with a substantially greater population density than the AVAQMD, has adopted additional source-specific rules that assist in controlling odors, including Rule 410, for controlling odors from transfer stations and material recovery facilities, and Rule 1138, for controlling emissions from restaurant cooking operations. While the AVAQMD has no rules identical to SCAQMD Rule 410 and Rule 1138, potential odorous emissions still would be subject to the overall nuisance requirements in Rule 402. For composting and related operations, SCAQMD Rules 1133, 1133.2, and 1133.3 and AVAQMD Rule 1133 requires the reduction of potentially odorous emissions of VOCs and ammonia from composting and related operations.

Future projects facilitated by the Draft 2045 CAP measures and actions, as well as other cumulative projects, would be required to comply with all applicable regulatory requirements for controlling emissions such as those leading to odors, thereby assuring less-than-significant impacts. Therefore, cumulative impacts related to exposure of people to other emissions such as those leading to odors would be less than significant, and the Project's contribution to this impact would not be cumulatively considerable.

Mitigation: None required.

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3.5 Biological Resources

This section identifies and evaluates issues related to biological resources to determine whether the Draft 2045 CAP would result in a significant impact related to candidate or special-status species, sensitive natural communities, wetlands, or oak woodlands. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to biological resources relate to: the California Department of Fish and Wildlife's (CDFW's) status as a trustee agency and a responsible agency and use of CDFW protocols and guidelines; the Antelope Valley Regional Conservation Investment Strategy; the South Coast Missing Linkages Project; the National Audubon Society's designation of the Antelope Valley (Lancaster) as an Important Bird Area and an area in the western Antelope Valley as one of 424 Globally Important Bird Areas due to global conservation concern (National Audubon Society 2022a, 2022b); impacts to wildlife corridors/migration; impacts on special-status species, such as Joshua Trees, burrowing owl, Swanson's hawk, Mohave ground squirrel, desert tortoise, mountain lion, and alkali mariposa lily; and impacts on sensitive natural communities. Comments also relate to impacts on biodiversity, ecosystems, and species, including from collisions with structures, lighting, noise, and human activity; impacts to land currently used by birds for foraging and nesting; and the potential for projects facilitated by Draft 2045 CAP measures and actions to divert water from local watercourses or result in impacts from ground-mounted, utility-scale solar development.

3.5.1 Setting

3.5.1.1 Study Area

The study area for this analysis of impacts on biological resources consists of the area where the 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that composes the unincorporated areas of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*.

3.5.1.2 Environmental Setting

Los Angeles County exhibits native habitats corresponding with the California and Desert Floristic Provinces. The County experiences a Mediterranean climate, which is generally characterized by concentrated winter precipitation and dry summers, within the California Floristic Province and a desert climate within the Desert Floristic Province. The County encompasses the junction of the Transverse and Peninsular mountain ranges, and supports a variety of habitats within mountain ranges, broad alluvial valleys, deserts, and coastal shorelines ranging in elevation from sea level to over 10,000 feet. Los Angeles County hosts one of the most

dense and populous urban metropolises in the country, and this urbanization has substantially altered native habitats. However, native habitats still remain within the mountainous, island, and desert areas, as well as in some drainage areas.

Los Angeles County contains a variety of vegetation types with a diverse number of plant and animal species. Vegetation communities in Los Angeles County can be broadly categorized as coastal shoreline, coastal marine, salt marsh, freshwater marsh, coastal scrub, chaparral, grassland, woodland, coniferous forest, and desert.

Special-Status Species

Special-status species are defined as those plants and wildlife that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or local agencies as being under threat from development pressure as well as natural causes. Many of these species receive specific protection that is defined and regulated by the federal Endangered Species Act (FESA) or California Endangered Species Act (CESA). Other species have been designated as special-status on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities and/or special districts to meet local conservation objectives. Special-status species include all of the following:

- Species listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under the FESA or the CESA.
- Species that meet the definitions of rare or endangered under CEQA Guidelines Section 15380.
- Plants considered “rare, threatened, or endangered in California” by the California Native Plant Society (CNPS), adopted by CDFW, and assigned a California Rare Plant Rank (CRPR), which are summarized as follows: CRPR 1A (plants presumed to be extinct in California and either Rare or Extinct elsewhere); CRPR 1B (plants that are rare, threatened, or endangered in California and elsewhere); CRPR 2A (plants presumed to be extirpated in California but more common elsewhere); CRPR 2B (plants that are rare, threatened, or endangered in California but more common elsewhere); CRPR 3 (plants about which more information is needed); and CRPR 4 (plants of limited distribution). CRPR 1B and 2B meet the definitions of Section 1901 of the Native Plant Protection Act (NPPA) or California Fish and Game Code Sections 2062 and 2067 (CESA), and are eligible for state listing. Many CRPR 3 and 4 species do not meet the definitions of special-status plants but may be significant locally and are recommended for consideration under CEQA (CNPS 2001). The CNPS appends CRPR categorizations with “threat ranks” that parallel the ranks used by the CNDDB, and are added as a decimal code after the CRPS (e.g., CRPR 1B.1). The threat codes are as follows: 0.1 (seriously endangered in California [over 80 percent of occurrences threatened/high degree and immediacy of threat]), 0.2 (fairly endangered in California [20–80 percent of occurrences threatened]), and 0.3 (not very endangered in California [<20 percent of occurrences threatened or no current threats known]).
- Species designated by CDFW as “species of special concern” or “special animals.”
- Species designated “fully protected” in California (Fish and Game Code Sections 3511, 4700, and 5050).

- Species and plants considered rare and endangered in California by CDFW, a member of the NatureServe Network, which are summarized as follows: S1 (Critically Imperiled: At very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors); S2 (Imperiled: At high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors); S3 (Vulnerable: At moderate risk of extirpation in the jurisdiction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors); and S4 (Apparently Secure: At a fairly low risk of extirpation in the jurisdiction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors). A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks. By adding a “?” to the rank: e.g., S2?; this represents more certainty than S2S3, but less certainty than S2.

A complete list of special-status plant and wildlife species that have been documented to occur in Los Angeles County is provided in **Appendix C, Biological Resources**. A total of 275 special-status plant species and 239 special-status wildlife species have been documented in Los Angeles County (CDFW 2021a; USFWS 2021). See **Figure 3.5-1, Sensitive Biological Resources**.

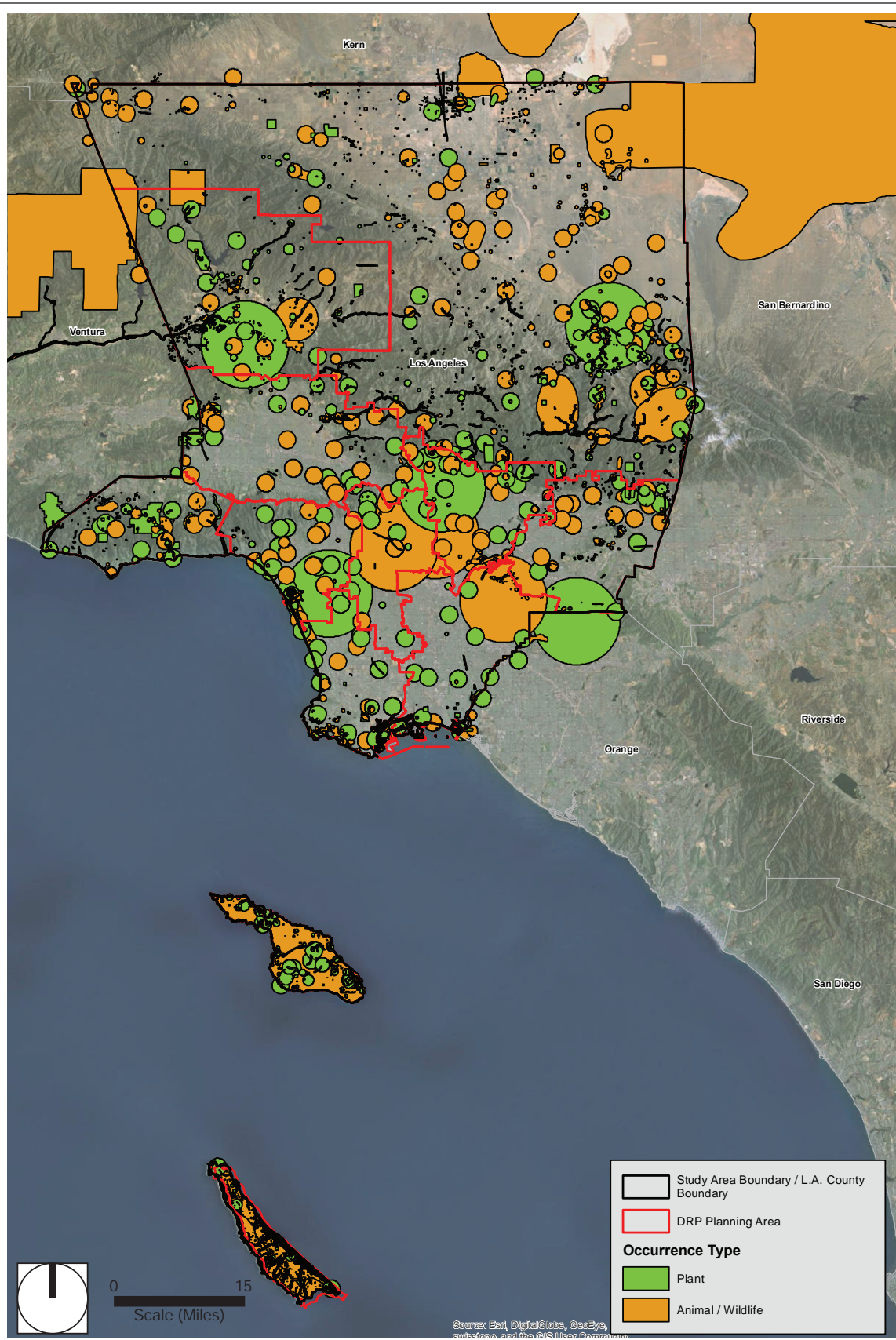
Sensitive Natural Communities

Sensitive natural communities are designated by CDFW, or occasionally in local policies and regulations, and are generally considered to have important functions or values for wildlife and/or are recognized as declining in extent and/or distribution. These communities are considered threatened enough to warrant some level of protection either through the CEQA review process or by local regulations. CDFW tracks such communities through the California Natural Diversity Database (CNDDB), and plant alliances or associations with a state rank of S1 through S3 are considered to be sensitive natural communities by the state to be addressed in the CEQA process. CDFW uses NatureServe’s Heritage Methodology for ranking natural communities by their rarity and threat, ranging from 1 (very rare and threatened) to 5 (demonstrably secure) (Faber-Langendoen et al. 2012).

The following 28 sensitive natural communities are within Los Angeles County (CDFW 2021b):

- California Walnut Woodland
- Island Cherry Forest
- Mainland Cherry Forest
- Mojave Riparian Forest
- Riversidian Alluvial Fan Sage Scrub
- Southern Coastal Salt Marsh
- Southern Dune Scrub
- Southern Mixed Riparian Forest
- Southern Willow Scrub
- Valley Oak Woodland
- Wildflower Field
- Canyon Live Oak Ravine Forest
- Island Ironwood Forest
- Maritime Succulent Scrub
- Open Engelmann Oak Woodland
- Southern Coastal Bluff Scrub
- Southern Cottonwood Willow Riparian Forest
- Southern Foredunes
- Southern Riparian Scrub
- Valley Needlegrass Grassland

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SOURCE: Los Angeles County General Plan, 2014

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.5-1
Sensitive Biological Resources

- Walnut Forest
- Joshua Tree Woodland
- Southern California Arroyo Chub/Santa Ana Sucker Stream
- Southern California Coastal Lagoon
- Southern California Steelhead Stream
- Southern California Threespine Stickleback Stream
- Southern Coast Live Oak Riparian Forest
- Southern Riparian Forest
- Southern Sycamore Alder Riparian Woodland

Critical Habitat

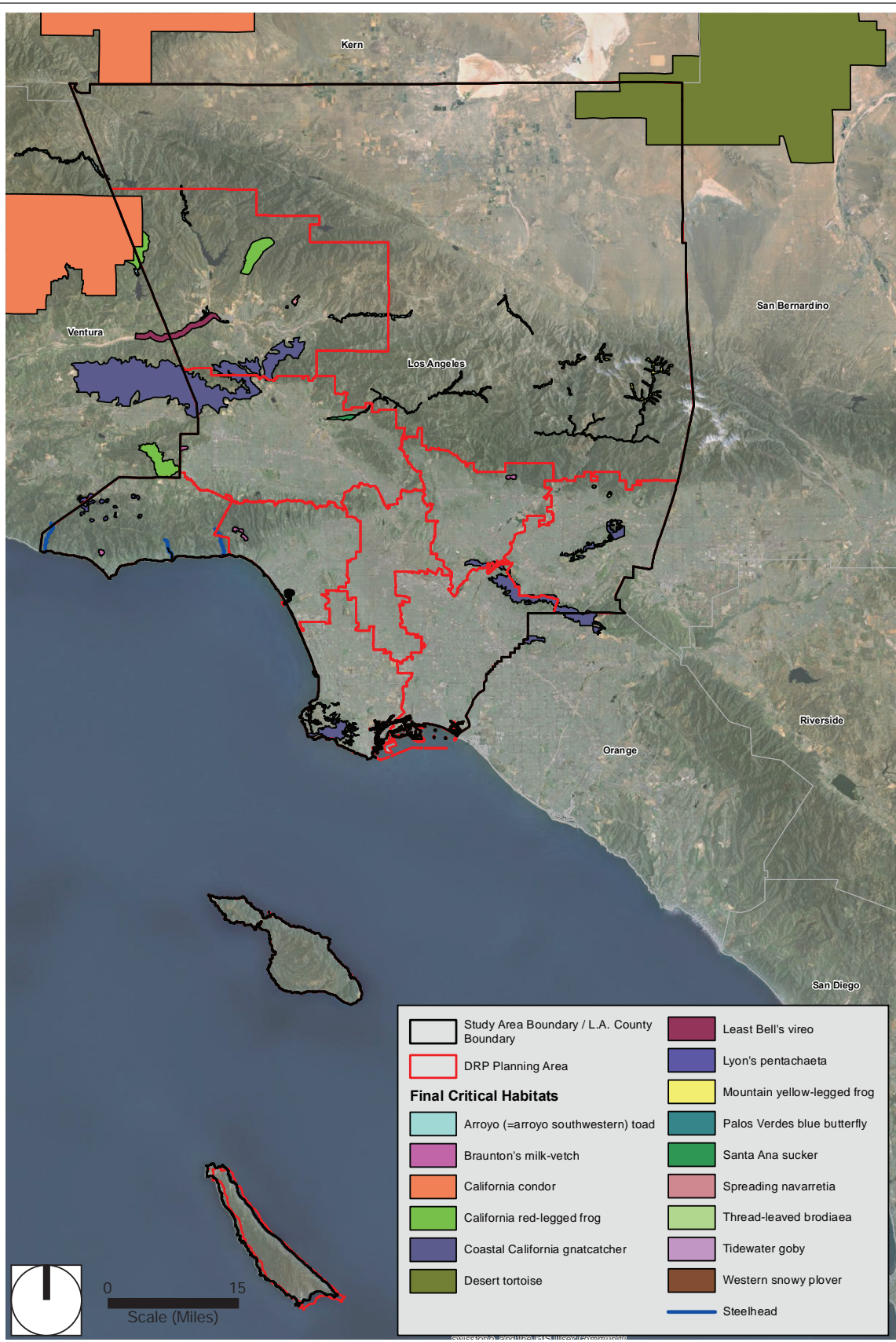
Critical habitat is designated for the survival and recovery of federally listed endangered and/or threatened species. Protected habitat includes areas for foraging, breeding, roosting, shelter, and movement or migration. U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) has designated the following 17 species with critical habitats located within Los Angeles County under the FESA (United States Code [U.S.C.] Title 16, Section 1533(a)(3) [16 USC 1533(a)(3)]) (USFWS 2021). See **Figure 3.5-2, Designated Critical Habitats**.

- Arroyo Toad
- California Condor
- Coastal California Gnatcatcher
- Least Bell's Vireo
- Mountain Yellow-legged Frog
- Santa Ana Sucker
- Spreading Navarretia
- Tidewater Goby
- Southern California Steelhead
- Braunton's Milk-vetch
- California Red-legged Frog
- Desert Tortoise
- Lyon's Pentachaeta
- Palos Verdes Blue Butterfly
- Southwestern Willow Flycatcher
- Thread-leaved Brodiaea
- Western Snowy Plover

Jurisdictional Waters

Wetlands and permanent and intermittent drainages, creeks, and streams identified as waters of the United States are subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE) under Section 404 of the federal Clean Water Act (CWA). These features also are considered waters of the state subject to jurisdiction by the State Water Resources Control Board (SWRCB) and the regional water quality control boards (RWQCBs). All rivers and flood control drainages within Los Angeles County that flow to the ocean are within the jurisdiction of these agencies. Major watersheds within Los Angeles County include: Los Angeles River, San Gabriel River, Santa Clara River, Antelope Valley Watershed, Malibu Creek, Ballona Creek, and Dominguez. See **Figure 3.5-3, Major Watersheds**.

Streambeds, channels, or banks of any river, stream, or lake are subject to regulation by CDFW under Fish and Game Code Section 1602. A *stream* is defined under these regulations as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. This definition includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. CDFW jurisdiction typically extends to the edge of the riparian vegetation canopy.



SOURCE: Los Angeles County General Plan, 2014

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.5-2
Designated Critical Habitats



SOURCE: Los Angeles County General Plan, 2014

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.5-3
Major Watersheds

Wildlife Movement Corridors

Habitat linkages are contiguous areas of open space that connect two larger habitat areas. Linkages allow for both diffusion and dispersal of a variety of species within the landscape. In addition, linkages can serve as primary habitat for some smaller species. *Corridors* are linear linkages between two or more habitat patches. Corridors provide for movement and dispersal, but do not necessarily include habitat capable of supporting all life history requirements of a species.

Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. The nature of corridor use and wildlife movement patterns varies greatly among species.

The South Coast Missing Linkages report is the result of a collaborative interagency effort to identify missing landscape linkages throughout Southern California that are important to habitat connectivity. Within the Los Angeles County region, there are five regional linkages identified by South Coast Wildlands and the immediately surrounding areas (South Coast Wildlands 2008). See **Figure 3.5-4, Regional Wildlife Linkages**.

- San Gabriel–Castaic Connection
- San Gabriel–San Bernardino Connection
- Santa Monica–Sierra Madre Connection
- Sierra Madre–Castaic Connection
- Tehachapi Connection

In addition to the five regional linkages, other important habitat linkages in Los Angeles County include those along linear topographic features such as principal watercourses of the County: the Antelope Wash, Little Rock Creek, Big Rock Creek, San Antonio Canyon, San Gabriel River, Los Angeles River, Santa Clara River, Topanga Canyon, Malibu Canyon, Zuma Canyon, and the Arroyo Sequit. LA County also recognizes the San Andreas Fault linkage, entirely within the Antelope Valley Planning Area, which transits Los Angeles County from the far east end to the far west end, and provides linkage from the eastern San Gabriel Mountains to the base of the Tehachapi Mountains in the northwestern corner of the County (County of Los Angeles 2014). See **Figure 3.5-5, Regional Habitat Linkages**.

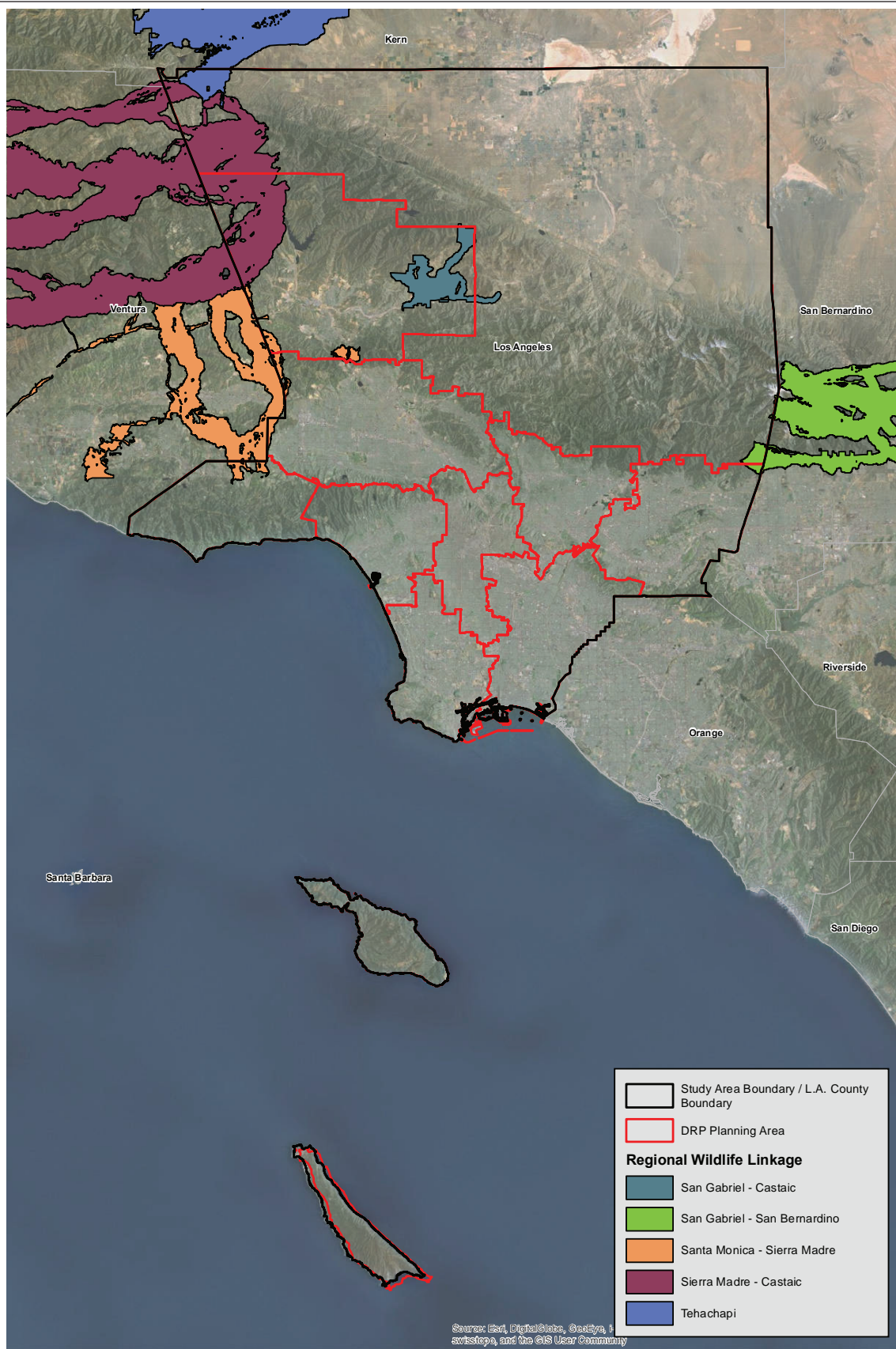
3.5.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Endangered Species Act

The FESA (16 U.S.C. 1531 et seq.) regulates endangered and threatened species and the ecosystems upon which they depend. The FESA defines species as threatened or endangered and provides regulatory protection for listed species, and establishes a program for the conservation and recovery of threatened and endangered species, as well as the conservation of designated critical habitat that USFWS determines is required for the survival and recovery of these listed species.

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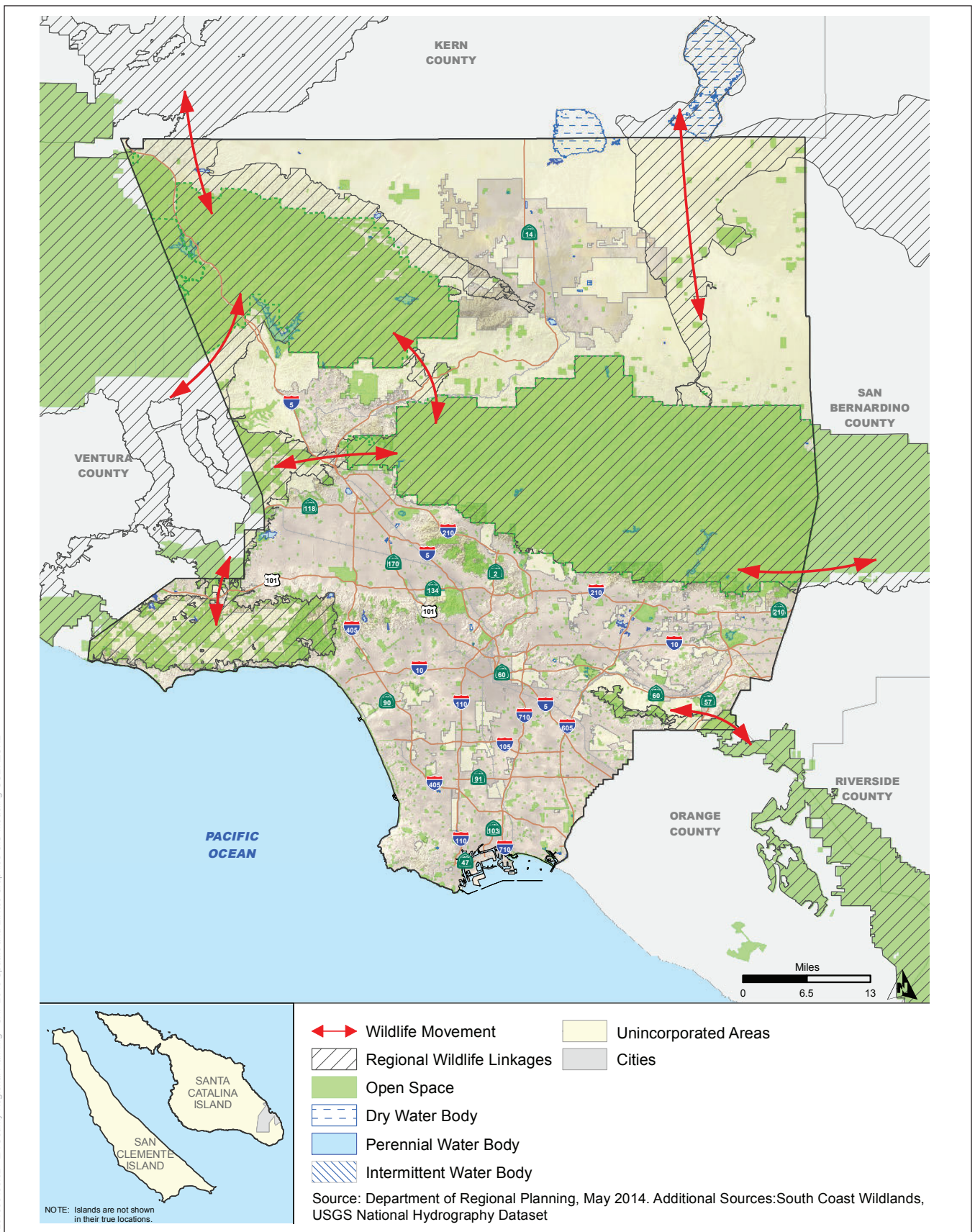


SOURCE: Los Angeles County General Plan, 2014

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.5-4
Regional Wildlife Linkages

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SOURCE: Los Angeles County General Plan, 2014

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.5-5
Regional Habitat Linkages

Section 7 of the FESA requires federal agencies, in consultation with and assistance from the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The USFWS and NMFS share responsibilities for administering the FESA and regulate the “taking” of species listed as threatened or endangered. The FESA prohibits the “taking” of listed species of fish, wildlife, and plants without special exemption. Section 9 defines *take* as to “harass, harm, pursue, hunt, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.) domestically implements a series of international treaties that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds; the act provides that it shall be unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird” (16 U.S.C. 703).

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668) protects bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) by prohibiting the taking, possession, and commerce of these species, and establishes civil penalties for violation of this act.

Clean Water Act

The federal CWA (33 U.S.C. 1251 et seq.) is intended to achieve restoration and maintenance of the chemical, physical, and biological integrity of the nation’s waters. Section 401 requires a project proponent for a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The RWQCB administers the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Guidelines for implementation are referred to as the *Section 404(b)(1) Guidelines*, which were developed by the U.S. Environmental Protection Agency in conjunction with USACE (Code of Federal Regulations Title 40, Section 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

State

California Endangered Species Act

The CESA (Fish and Game Code Section 2050 et seq.) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid

jeopardy. There are no state agency consultation procedures under the CESA. For projects that would affect a listed species under both the CESA and the FESA, compliance with the FESA would satisfy the CESA if CDFW determines that the federal incidental take authorization is “consistent” with the CESA under Fish and Game Code Section 2080.1. For projects that would result in take of a species listed under the CESA only, an incidental take permit is required under Section 2081(b).

Clean Water Act Section 401 Certification and Porter-Cologne Water Quality Control Act

The State of California regulates discharge of fill material into waters of the state pursuant to Section 401 of the CWA. Section 401 compliance is a federal mandate implemented by the state. Where a Section 404 permit is required, a Section 401 water quality certification from the RWQCB also is required.

In addition, the state regulates water quality for all waters of the state, including isolated wetlands, as defined under the Porter-Cologne Water Quality Control Act. The state regulates all discharges that can affect water quality, even if there is no significant nexus to a waters of the United States. In such instances, a waste discharge permit may be required even though federal CWA Section 404 permits are not required.

California Fish and Game Code

Sections 1600–1616. Under these sections of the Fish and Game Code, a project proponent is required to notify CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a *stream* is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a streambed alteration agreement, which becomes part of the plans, specifications, and bid documents for the project.

Sections 3503, 3503.5, 3513, and 3800. Under these sections, a project proponent is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds of prey or their nests or eggs; the taking or possessing of any migratory nongame bird as designated in the MBTA; the taking, possessing, or needlessly destroying of the nest or eggs of any bird; or the taking of any nongame bird pursuant to Fish and Game Code Section 3800.

Sections 3511, 4700, 5050, and 5515. These sections of the Fish and Game Code prohibit take or possession of fully protected species. CDFW does not have the authority to permit incidental take of fully protected species when activities are proposed in areas inhabited by those species.

Native Plant Protection Act

California's NPPA requires all state agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the NPPA prohibit the taking of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that otherwise would be destroyed. Landowners are required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

CEQA Guidelines Section 15380

In addition to the protections provided by specific federal and state statutes, CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species nonetheless may be considered rare or endangered for purposes of CEQA if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the CESA and the section of the Fish and Game Code dealing with rare or endangered plants or animals.

Local

Los Angeles County General Plan

As part of the General Plan's Conservation/Open Space and Land Use elements, LA County has identified and adopted policies for Significant Ecological Areas (SEAs). The objective of the SEAs is to preserve Los Angeles County's genetic and physical ecological diversity by designating biological resource areas capable of sustaining themselves into the future. The SEA designation is given to land that contains irreplaceable biological resources, and includes undisturbed or lightly disturbed habitats that support valuable and threatened species and linkages and corridors to promote species movements.

SEAs are not wilderness preserves, and much of the land within SEAs is privately held, used for public recreation or abuts developed areas. The SEAs are intended to ensure that privately held lands retain the right of reasonable use, while avoiding activities and developments that are incompatible with the long-term survival of the biological resources and habitats within the SEAs. Biological resource protection in SEAs is regulated under Chapter 22.102 of the Los Angeles County Planning and Zoning Code.

Los Angeles County Oak Tree Ordinance

Chapter 22.174 of the Los Angeles County Code of Ordinances is the Oak Tree Ordinance. The ordinance recognizes oak trees within the County as a historical, aesthetic, and ecological resource. The ordinance applies to all unincorporated areas of the County. Several cities within the county may have adopted this or a similar ordinance. The Los Angeles County ordinance, in particular, prohibits a person to "cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any tree of the oak genus" that is 8 inches or more in diameter.

Los Angeles County Oak Woodland Conservation Management Plan

LA County adopted a California Oak Woodlands Conservation Management Plan pursuant to the requirements of Assembly Bill 242 in 2011. The Los Angeles County Oak Woodlands Conservation Management Plan provides consistent policy for the management of oak woodlands that can be incorporated into the General Plan and other relevant planning documents, developing a comprehensive and cohesive strategy for dealing with loss, and creating opportunities for recovering oak woodlands.

Los Angeles County Hillside Management Areas

The Hillside Management Area (HMA) Ordinance applies to all unincorporated areas of the County that contain terrain with a natural slope of 25 percent or greater. The goal of the ordinance is to ensure that development preserves the physical integrity and scenic value of HMAs, provides open space, and enhances community character. Locating development outside of HMAs to the greatest extent feasible will be the first emphasis of sensitive hillside design. Where avoidance is not feasible, development of HMAs will be located in the lowest and flattest areas of the hillside to reduce impacts on steeper hillside areas. Last, development will use a variety of sensitive hillside design techniques to ensure compatibility with the hillside and enhance community character. Development within HMAs is regulated under the Special Management Area provisions of Chapter 22.104 of the Los Angeles County Planning and Zoning Code.

3.5.2 Impact Analysis

3.5.2.1 Significance Criteria

To determine the level of significance of an identified impact, the following thresholds are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact on biological resources if it would:

- a) Have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- b) Have a substantial adverse impact on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- c) Have a substantial adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means;
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10 percent canopy cover with oaks at least 5 inches in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.);

- f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (LA County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (LA County Code, Title 22, Ch. 22.174), the SEAs (LA County Code, Title 22, Ch. 102), Specific Plans (LA County Code, Title 22, Ch. 22.46), Community Standards Districts (LA County Code, Title 22, Ch. 22.300 et seq.), and/or Coastal Resource Areas (General Plan, Figure 9.3); or
- g) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved state, regional, or local habitat conservation plan.

Based on the analysis documents in the Initial Study (Appendix A2), it was concluded that implementation of the Draft 2045 CAP would result in a less-than-significant impact with respect to criterion f) and no impact with respect to criterion g). Impacts to criterion f) have been determined to be less than significant based on requisite compliance with independently enforceable local policies and ordinances would assure that biological resources are protected. The Draft 2045 CAP, including projects facilitated by Draft 2045 CAP measures and actions, would have no impact relative to criterion g) because there are currently no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved state, regional, or local habitat conservation plans in effect in unincorporated areas of the County. Accordingly, these considerations were not carried forward for more detailed review.

3.5.2.2 Methodology

The following impact analysis is based on existing biological resources located within the unincorporated areas of the County. Biological resources evaluated included sensitive habitats, special-status plant and animal species, and potential for wildlife movement corridors and were based on a literature review from database research results. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.5.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures and various implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics because the location and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, environmental impacts of implementing the Draft 2045 CAP specific measures and actions were considered as part of this analysis to the degree that specific information about such implementation is known. Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the impacts of implementing these measures that could result, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary,

identifies certain measures and actions relevant to this analysis of biological resources–related impacts. These and other relevant measures and actions include those summarized below.

Renewable energy and related infrastructure projects facilitated by Draft 2045 CAP measures and actions toward decarbonization of the energy supply (e.g., Measure ES2: Procure Zero-Carbon Electricity, Measure ES3: Increase Renewable Energy Production, and Measure ES4: Increase Energy Resilience), the electrification of vehicles (e.g., Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales, Measure T7: Electrify LA County Fleet Vehicles, Measure T8: Accelerate Freight Decarbonization, and Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment) and the electrification of buildings (Strategy 5, Decarbonize Buildings) are particularly relevant to the analysis of impacts to biological resources because related development could affect special-status species and habitats, sensitive natural communities, state or federally protected wetlands, interference with species movement or impediment of the use of native wildlife nursery sites, or the conversion of oak woodlands or other unique native woodlands. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

Specific impacts related to biological resource impacts of the Draft 2045 CAP, including projects facilitated by Draft 2045 CAP measures and actions, are discussed below.

Criterion a) Whether the Project would have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Impact 3.5-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial direct adverse impact on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. (*Less than Significant with Mitigation Incorporated*)

A total of 275 special-status plant species and 239 special-status wildlife species have been documented in Los Angeles County. While the Draft 2045 CAP is a policy document and does not include specific projects that would have adverse impacts on special-status species and their habitat, various projects facilitated by the Draft 2045 CAP measures and actions could adversely affect special-status species and their habitat.

Individual projects facilitated by Draft 2045 CAP measures and actions could affect special-status species and their habitat when expanding bicycle and pedestrian networks within recreational areas (Measure T3), procuring zero-carbon electricity (Measure ES2), increasing renewable energy production on new development (Measure ES3), expanding energy resilience (Measure ES4), and facilitating new or expanded waste collection and processing facilities (Measure W1 and W2). These measures may facilitate new development such as waste processing facilities or large utility-scale energy projects and related infrastructure (e.g., solar photovoltaic energy generation, battery storage, substation and/or transmission projects) in the Antelope Valley or other rural unincorporated areas of the County. They could cause mortality of special-status species or result in

habitat loss or modification of such species. Increasing recycled-water use for irrigation or other purposes (Measure E5) also could affect special-status species and their habitats in watersheds that rely on recycled water due to other water diversions or drought. Direct impacts on special-status species or a reduction of their habitat would be a significant impact.

The Draft 2045 CAP measures promoting transportation options (Measures T3 and T4) and increasing renewable energy production on existing infrastructure (Measure ES3) would likely be located within the urban environments and on disturbed areas with existing infrastructure. To the extent that projects facilitated by these measures would be located in urban environments and on disturbed areas with existing infrastructure, they would not be expected to affect special-status species and their habitat.

The implementation of some Draft 2045 CAP measures would reduce development pressure on vacant and undeveloped land, conserve natural lands, and plant special-status tree species, which could support and increase special-status species and their habitat. These Draft 2045 CAP measures include expanding a safer bikeway and pedestrian network to support alternative modes of transportation, support the conservation of forest lands and prevent land conversion of agricultural and natural lands, and increase urban forests. The implementation of projects facilitated by these measures would benefit special-status species and their habitats by conserving natural lands and adding potential resources and individual special-status trees when planting trees in the urban environment. These measures may facilitate new development such as utility-scale energy projects (e.g., solar, battery storage, substation, transmission) in the Antelope Valley or other rural areas and could affect special-status species by direct removal or conversion of suitable habitat or indirectly through introduction of barriers to movement or reflective surfaces interfering with wildlife migration.

Additionally, the Conservation and Natural Resources Elements of the General Plan would continue to be followed and enforced to protect biological resources, including General Plan Mitigation Measures BIO-1 and BIO-2 (repeated below as Mitigation Measure 3.5-1 and Mitigation Measure 3.5-2). Mitigation Measure 3.5-1 would ensure that, on a project-specific level, necessary surveys would be conducted and a biological resources assessment prepared to analyze the specific impacts of projects facilitated by the Draft 2045 CAP and would propose appropriate mitigation measures to offset those impacts. Mitigation Measure 3.5-2 would avoid direct mortality to special-status species from construction activities by requiring preconstruction surveys (and construction monitoring where warranted) for special-status species as necessary. Federal and state regulations would continue to apply.

Mitigation Measure 3.5-1: Biological resources shall be analyzed on a project-specific level by a qualified biological consultant. Prior to the start of construction activities, a general survey shall be conducted to characterize the project site, and focused surveys would be conducted as necessary to determine the presence/absence of special-status species (e.g., focused sensitive plant or wildlife surveys). A biological resources assessment report shall be prepared to characterize the biological resources on-site, analyze impacts on biological resources, and propose mitigation measures to offset those impacts. The report shall include site location, literature sources, methodology, timing of surveys, vegetation map, site photographs, and descriptions of biological resources on-site (e.g., observed and detected species as well as those species with potential to occur onsite).

Mitigation Measure 3.5-2: If there is potential for direct impacts to special-status species with implementation of construction activities, the project-specific biological resources assessment report (as described in Mitigation Measure 3.5-1) shall include a mitigation measure requiring pre-construction surveys for special-status species and/or construction monitoring to ensure avoidance, relocation, or safe escape of special-status species from the construction activities, as appropriate. If special-status species are found to be nesting, brooding, denning, etc. on-site during the pre-construction survey or monitoring, construction activity shall be halted until offspring are weaned, fledged, etc. and are able to escape the site or be safely relocated to appropriate offsite habitat areas. Relocation of such species into areas of appropriate restored habitat would have the best chance of replacing/incrementing populations that are lost due to habitat converted to development. Relocation to restored habitat areas shall be the preferred goal of this measure. A qualified biologist shall be on site to conduct surveys, to perform or oversee implementation of protective measures, and to determine when construction activity may resume.

Significance after Mitigation: Less than significant with mitigation incorporated.

Impact 3.5-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. (Significant and Unavoidable)

Although direct impacts on special-status species would be mitigated, significant indirect impacts on special-status species would occur due to the loss of common, non-sensitive habitat. Special-status species are dependent on both sensitive and common habitats and with the development facilitated by Draft 2045 CAP measures and actions, habitat and resources to support special-status species could be reduced. Thus, even with the implementation of the mitigation measures, indirect impacts on special-status species would remain significant and unavoidable.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2, set forth above.

Significance after Mitigation: Significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b) Whether the Project would have a substantial adverse impact on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS.

Impact 3.5-3: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS. (Significant and Unavoidable)

A total of 28 sensitive natural communities have been identified within Los Angeles County. While the Draft 2045 CAP is a policy document and does not include specific projects that would

have adverse impacts on sensitive natural communities, various projects facilitated by the Draft 2045 CAP measures and actions could adversely impact sensitive natural communities.

Individual projects facilitated by Draft 2045 CAP measures and actions could affect sensitive natural communities when expanding bicycle and pedestrian networks within recreational areas, procuring zero-carbon electricity, electrifying new development, increasing renewable energy production on new development, and expanding energy resilience. These measures may facilitate new development such as large utility-scale energy projects (e.g., solar, battery storage, substation, transmission) in the Antelope Valley or other rural areas and could affect sensitive natural communities by direct removal or conversion of habitat. Also, increasing recycled-water use for irrigation or other purposes may also potentially affect sensitive natural communities in watersheds that rely on recycled water for survival due to water diversions or drought. The Draft 2045 CAP measures and actions could facilitate projects that would result in a reduction of sensitive natural communities, which is considered significant and unavoidable.

The Draft 2045 CAP measures promoting transportation options within an urbanized area and increasing renewable energy production on existing infrastructure would likely be located within the urban environments and on disturbed areas with existing infrastructure. To the extent that projects facilitated by these measures would be located in urban environments and on disturbed areas with existing infrastructure, they would not be expected to affect sensitive natural communities.

The implementation of some Draft 2045 CAP measures would reduce development pressure on vacant and undeveloped land, and conserve natural lands including sensitive natural communities. These Draft 2045 CAP measures include expanding a safer bikeway and pedestrian network to support alternative modes of transportation and support the conservation of forest lands and prevent land conversion of agricultural and natural lands, which could directly benefit sensitive natural communities.

Additionally, the Conservation and Natural Resources Elements of the General Plan would continue to be followed and enforced to protect biological resources, including through General Plan Mitigation Measures BIO-1 and BIO-2 (repeated above as Mitigation Measures 3.5-1 and 3.5-2). Federal and state regulations would continue to apply. Although direct impacts on sensitive natural communities would be mitigated, no mitigation is provided for indirect impacts on sensitive natural communities through the loss of common, non-sensitive habitat. Sensitive natural communities are dependent on both sensitive and common habitats, and with the potential increase in development to implement the Draft 2045 CAP, measures and actions could reduce common habitat and resources to support sensitive natural communities. Thus, even with the implementation of recommended mitigation measures, impacts on sensitive natural communities that could result from projects facilitated by the Draft 2045 CAP would remain significant and unavoidable.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2, set forth above.

Significance after Mitigation: Significant and unavoidable. No additional feasible mitigation measures are available.

Criterion c) Whether the Project would have a substantial adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact 3.5-4: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant with Mitigation Incorporated*)

Los Angeles County supports numerous water bodies (e.g., San Gabriel River and Santa Clara River) as well as smaller streams and tributaries that support important riverine and riparian habitat, including state or federally protected wetlands. Federally protected wetlands are located within unincorporated areas of the County, although parcel-specific locations are not currently known. The Draft 2045 CAP is a policy document that does not include specific projects that would have adverse impacts on state and federally protected wetlands; however, projects facilitated by Draft 2045 CAP measures and actions could adversely affect state and federally protected wetlands.

Individual projects facilitated by Draft 2045 CAP measures and actions could affect state or federally protected wetlands when expanding bicycle and pedestrian networks within recreational areas, procuring zero-carbon electricity, electrifying all new development, increasing renewable energy production on new development, and expanding energy resilience. These measures may facilitate new development such as large utility-scale energy projects (e.g., solar, battery storage, substation, and transmission infrastructure) in the Antelope Valley or other undisturbed areas and could affect state or federally protected wetlands (if present) through direct removal, filling, hydromodification, or diversion or change in water quality. Impacts on state or federally protected wetlands are considered significant without mitigation.

The Draft 2045 CAP measures promoting transportation options within an urbanized area and increasing renewable energy production on existing infrastructure would likely be located within the urban environments and on disturbed areas with existing infrastructure. To the extent these measures would facilitate projects located in urban environments and on disturbed areas with existing infrastructure, they are not expected to affect state or federally protected wetlands.

The implementation of some Draft 2045 CAP measures would reduce development pressure on vacant and undeveloped land and conserve natural lands including state or federally protected wetlands. These Draft 2045 CAP measures include expanding a safer bikeway and pedestrian network to support alternative modes of transportation and support the conservation of forest lands and prevent land conversion of agricultural and natural lands, which could directly benefit state or federally protected wetlands.

Additionally, the Conservation and Natural Resources Elements of the General Plan would continue to be followed and enforced to protect biological resources, including through General Plan Mitigation Measures BIO-1 and BIO-2 (set forth above as Mitigation Measures 3.5-1 and 3.5-2). Federal and state regulations would continue to apply. For example, Mitigation Measure 3.5-1 would ensure that surveys are conducted to identify any state or federally protected wetlands prior

to any new development projects implemented under the Draft 2045 CAP measures. Thus, with the implementation of the recommended mitigation measures, impacts on state or federally protected wetlands due to potential future projects would be less than significant.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2, set forth above.

Significance after Mitigation: Less-than-significant impact with mitigation incorporated.

Criterion d) Whether the Project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Impact 3.5-5: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (Significant and Unavoidable)

Los Angeles County supports five regional wildlife linkages in addition to County area habitat linkages discussed in Section 3.5.1.5, *Wildlife Movement Corridors*. The Draft 2045 CAP is a policy document and does not include specific projects that would have adverse impacts on wildlife corridors, habitat linkages, and native wildlife nursery sites; however, projects facilitated by Draft 2045 CAP measures and actions could adversely affect wildlife corridors, habitat linkages, and native wildlife nursery sites.

Projects facilitated by Draft 2045 CAP measures and actions could adversely affect wildlife corridors, habitat linkages, and native wildlife nursery sites when expanding bicycle and pedestrian networks within recreational areas, procuring zero-carbon electricity, electrifying all new development, increasing renewable energy production on new development, and expanding energy resilience. These measures may facilitate new development such as large utility-scale energy projects (e.g., solar, battery storage, substation, transmission infrastructure) in the Antelope Valley or other rural areas and would affect wildlife corridors, habitat linkages, and native wildlife nursery sites if they narrow existing corridors or remove them completely. Impact associated with narrowing or removing existing wildlife corridors, habitat linkages, and/or native wildlife nursery sites would be considered significant and unavoidable.

The Draft 2045 CAP measures promoting transportation options within an urbanized area and increasing renewable energy production on existing infrastructure would likely be located within the urban environments and on disturbed areas with existing infrastructure. To the extent that these measures would facilitate projects located in urban environments and on disturbed areas with existing infrastructure, they would not be expected to substantially affect wildlife corridors, habitat linkages, or native wildlife nursery sites. However, wildlife corridors and habitat linkages within urban environments, although often constrained, exist along waterways and stepping stone patches of remnant habitats, providing opportunities for wildlife movement near and within developed areas. The Draft 2045 CAP measures and actions would incrementally increase constraints on these corridors and linkages, making passage within urban environments more

difficult, albeit not impossible. Impacts of projects facilitated by Draft 2045 CAP measures and actions that are associated with narrowing or removing of urban wildlife corridor or habitat linkages would be considered significant and unavoidable.

The implementation of some Draft 2045 CAP measures would reduce development pressure on vacant and undeveloped land and conserve natural lands including wildlife corridors, habitat linkages, and native wildlife nursery sites. These Draft 2045 CAP measures include expanding a safer bikeway and pedestrian network to support alternative modes of transportation and support the conservation of forest lands and prevent land conversion of agricultural and natural lands, which could directly benefit wildlife corridors, habitat linkages, and native wildlife nursery sites.

Additionally, the Conservation and Natural Resources Elements of the General Plan would continue to guide activities throughout Los Angeles County, including its unincorporated areas, to protect biological resources, including through the implementation of General Plan Mitigation Measures BIO-1 and BIO-3 (BIO-1 is set forth above as Mitigation Measure 3.5-1; BIO-3 is set forth below as Mitigation Measure 3.5-3). Federal and state regulations would continue to apply. Although any impacts on wildlife corridors, habitat linkages, and/or native wildlife nursery sites would be mitigated, the impacts would remain significant and unavoidable.

Mitigation: Implement Mitigation Measure 3.5-1.

Mitigation Measure 3.5-3: Corridors shall not be entirely closed by any development, and partial mitigation shall be mandatory for project-specific impacts on wildlife corridors and wildlife nursery sites. This shall include provision of a minimum of half the corridor width. (The width shall be at least what is needed to remain connective for the top predators using the corridor.) Mitigation can include preservation by deed in perpetuity of other parts of the wildlife corridor connecting through the development area; it can include native landscaping to provide cover on the corridor. For nursery site impacts, mitigation shall include preservation by deed in perpetuity for another comparable nursery site of the same species.

Significance after Mitigation: Significant and unavoidable. No additional feasible mitigation measures are available.

Criterion e) Whether the Project would convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10 percent canopy cover with oaks at least 5 inches in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.).

Impact 3.5-6: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10 percent canopy cover with oaks at least 5 inches in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.). (*Less-than-Significant Impact*)

Los Angeles County supports numerous oak woodlands and other unique native woodlands such as Joshua tree and Southern California black walnut woodlands. The Draft 2045 CAP is a policy

document and does not include specific analyses of individual projects that would have adverse impacts on oak and other unique native woodlands; however, projects facilitated by the Draft 2045 CAP measures and actions could adversely affect native woodland resources.

Projects facilitated by Draft 2045 CAP measures and actions could potentially affect oak woodlands and other unique native woodlands when expanding bicycle and pedestrian networks within recreational areas, procuring zero-carbon electricity, electrifying all new development, increasing renewable energy production on new development, and expanding energy resilience. These measures may facilitate new development such as large utility-scale energy projects (e.g., solar, battery storage, substation, transmission infrastructure) in the Antelope Valley. Such projects would adversely affect oak woodlands and/or other unique native woodlands directly if they would entail tree or woodland removal, or indirectly (e.g., construction vehicles drive over woodland root systems). Increasing recycled-water use for irrigation or other purposes also could adversely affect oak woodlands and other unique native woodlands in watersheds that rely on recycled water due to other water diversions within the watershed or drought. These measures could facilitate projects that would result in impacts on oak woodlands and other unique native woodlands.

The Conservation and Natural Resources Elements of the General Plan policies and LA County's Oak Tree Ordinance (Chapter 22.174), would continue to apply to protect biological resources, including oak and other unique native woodlands. LA County also administers the Oak Woodlands Conservation Management Plan, which similarly prohibits a person from removing or converting native woodlands unless a discretionary permit application has been approved by the Director of Regional Planning. Federal and state regulations also would continue to apply. With application of these existing, independently enforceable requirements to projects facilitated by the Draft 2045 CAP measures and actions, impacts on oak woodlands and other unique native woodlands would be less than significant.

Mitigation: None required.

3.5.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts on biological resources, the geographic area of consideration (i.e., the cumulative impacts study area) comprises the adjacent Tehachapi Mountains and Mojave Desert within Kern County to the north, the Mojave Desert and San Bernardino National Forest within San Bernardino County to the east, the Cleveland National Forest within Orange and Riverside Counties to the southeast, and Santa Monica Mountains and Los Padres National Forest within Ventura County to the west. Impacts could result at various locations within this area from the initiation of on-the-ground work implementing a project that facilitates Draft 2045 CAP measures and actions and until such projects are decommissioned and the sites restored.

Criterion a)

Impact 3.5-7: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in a cumulatively considerable contribution to a significant cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. (*Significant Unavoidable Cumulative Impact*)

A list of 275 special-status plant and 239 special-status wildlife species that have been documented to occur within Los Angeles County is provided in Appendix C, *Biological Resources* (CDFW 2021a; USFWS 2021). Species are accorded special status generally because they are recognized as declining in extent and/or distribution. These species are considered to be sufficiently at risk to warrant some level of protection either through the CEQA review process or by local regulations. Accordingly, when the Project's impacts are added, a significant cumulative impact of past, present, and reasonably foreseeable projects would occur with respect to these species.

The Draft 2045 CAP would contribute a significant direct and indirect incremental contribution to this significant cumulative impact. The Project's contribution could be mitigated to a less than cumulatively considerable (less-than-significant) level for direct impacts by the implementation of Mitigation Measures 3.5-1 and 3.5-2. However, for indirect impacts resulting in part from the loss of common habitats and diminished resource availability, the implementation of Mitigation Measures 3.5-1 and 3.5-2 would not be sufficient to reduce the level of the Project-specific impact to a less-than-significant level. Accordingly, the Project-specific, incremental contribution, taken into consideration with the cumulative projects' impacts on special-status species over the span of the Draft 2045 CAP, would remain cumulatively considerable and significant and unavoidable.

Mitigation: Implement Mitigation Measure 3.5-1, Mitigation Measure 3.5-2, set forth above.

Significance after Mitigation: Significant and Unavoidable. No additional feasible mitigation measures are available.

Criterion b)

Impact 3.5-8: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in a cumulatively considerable contribution to a significant cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS. (*Significant Unavoidable Cumulative Impact*)

Riparian habitat and sensitive natural communities are generally considered to have important functions or values for wildlife and/or are recognized as declining in extent and/or distribution. These communities are considered threatened enough to warrant some level of protection either through the CEQA review process or by federal, state, and local regulations, including the permitting jurisdiction of USACE, CDFW, and/or the RWQCB. Accordingly, when the Project's

impacts are added, a significant cumulative impact of past, present, and reasonably foreseeable projects would occur with respect to these resources.

The Draft 2045 CAP would contribute a significant and unavoidable incremental contribution to this significant cumulative impact. No further mitigation is available to reduce the significance of this incremental contribution because riparian habitat and sensitive natural communities are limited in distribution; therefore, the ability to replace or mitigate the loss of these areas are equally limited in opportunity and new habitats, especially riparian, cannot readily be created. Accordingly, the Project-specific, incremental contribution, taken into consideration with the cumulative projects' impacts on sensitive natural communities over the span of the Draft 2045 CAP, would remain cumulatively considerable and significant and unavoidable.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2, set forth above.

Significance after Mitigation: Significant and Unavoidable. No additional feasible mitigation measures are available.

Criterion c)

Impact 3.5-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a substantial cumulative adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

Past, present, and reasonably foreseeable future projects involving temporary or permanent impacts on jurisdictional waters and/or wetlands through filling, stockpiling, construction access, conversion to a storm drain, channelization, bank stabilization, road or utility line crossings, geotechnical investigations, or any other modifications that involve the discharge of fill and/or alteration of a jurisdictional resource, have contributed and are expected to continue to contribute to the loss of wetlands Countywide, including in the unincorporated areas. As of 2018, for example, OurCounty reported that Los Angeles County had lost 73 percent of its total estuarine area from 1850 to the present, and losses of 96 percent and 98 percent of vegetated and unvegetated estuarine areas, respectively (Los Angeles County Chief Sustainability Office 2018). At a smaller scale, past, present, and reasonably foreseeable future projects also have contributed to wetlands recovery and such efforts are likely to continue. For example, CDFW approved a plan to restore the Ballona Wetlands—the largest coastal wetlands complex in Los Angeles County—in December 2019. Final federal review, permitting, and approvals for that project remain pending. Further, regulating agencies including USACE, CDFW, and the RWQCB have a “no net loss” policy applicable to their permit processing. Nonetheless, given the precipitous decline in wetlands in the county, when the Project’s impacts are added, a significant adverse cumulative impact would occur.

The Draft 2045 CAP would contribute a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.5-1 and

3.5-2. With the implementation of these mitigation measures and compliance with the regulatory agencies of USACE, CDFW, and RWQCB implementing their “no net loss” of biological resource habitat policies, the Project-specific, incremental contribution, taken into consideration with the cumulative projects’ impacts on special-status species over the span of the Draft 2045 CAP, would not be cumulatively considerable. A less-than-significant cumulative impact on wetlands would result.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2, set forth above.

Significance after Mitigation: Less than Significant.

Criterion d)

Impact 3.5-10: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative impact relating to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impediment of the use of native wildlife nursery sites. (*Significant and Unavoidable Cumulative Impact*)

Studies, such as South Coast Missing Linkages, document important landscape linkages to facilitate wildlife movement throughout Southern California; however, there are few assurances or mitigation requirements to protect such areas (South Coast Wildlands 2008). Los Angeles County supports multiple regional wildlife linkages including the San Gabriel–Castaic Connection, San Gabriel–San Bernardino Connection, Santa Monica–Sierra Madre Connection, Sierra Madre–Castaic Connection, Tehachapi Connection, Antelope Valley Connection, and Puente Hills–Chino Hills Connection. Linkages exist along principal watercourses, along ranges of mountains and hills, and along the San Andreas Fault. Consistency with General Plan policies would protect regional wildlife linkages and facilitate wildlife movement by avoiding the most biologically sensitive areas and by concentrating development in previously disturbed areas. Nonetheless, General Plan buildout is expected to cause adversely affect regional wildlife linkages and nursery sites. Thus, when the Project’s impacts are added, a significant adverse cumulative impact would occur related to wildlife movement and nursery sites.

The Draft 2045 CAP would contribute a significant unavoidable incremental contribution to this significant cumulative impact. Even with the implementation of Mitigation Measures 3.5-1 and 3.5-3, the Project-specific, incremental contribution, taken into consideration with the cumulative projects’ impacts on special-status species over the span of the Draft 2045 CAP, would be cumulatively considerable. Additional mitigation opportunities for wildlife movement are limited or unavailable. A significant cumulative impact from interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impediment of the use of native wildlife nursery sites would result.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-3.

Significance after Mitigation: Significant and Unavoidable. No additional feasible mitigation measures are available.

Criterion e)

Impact 3.5-11: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to the cumulative conversion of oak woodlands or other unique native woodlands. (*Less-than-Significant Cumulative Impact*)

Cumulative projects could adversely affect oak woodlands and/or other unique native woodlands directly if they entail tree or woodland removal. Oak woodlands are protected Countywide, and oak trees can be found in every SEA in Los Angeles County. Ongoing threats to oak trees include nonnative pests (e.g., the invasive shot hole borer and gold spotted oak borer), development, drought, disease, and increased fire frequencies (County Planning 2022). LA County’s efforts to protect oak woodlands include enforcement of the Oak Tree Ordinance, which requires a permit to cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any oak tree regulated by the ordinance; and management of oak woodlands pursuant to the Oak Woodlands Conservation Management Plan and via the Oak Woodlands Conversation Management Plan Guide, which details the process by which LA County determines the extent of oak woodland habitat and associated requirements for reporting, analysis, and mitigation. Nonetheless, given the range of threats resulting in conversion of oak woodlands and other unique native woodlands that are outside the control of LA County regulations, when the Project’s impacts are added, the cumulative impact of past, present, and reasonably foreseeable future projects would be significant.

Projects facilitated by Draft 2045 CAP measures and actions would contribute a less-than-significant incremental contribution to this significant cumulative impact. This less-than-significant incremental contribution would not be cumulatively considerable because, taken into consideration with the cumulative impacts over the span of the Draft 2045 CAP, projects facilitated by Draft 2045 CAP measures and actions would be far less impactful, especially with implementation of LA County’s oak woodlands protection requirements, compared to the impacts of other natural factors contributing to the conversion of oak woodlands, such as wildfires, climate change, introduced plant diseases, or insect pests, that are beyond the LA County’s control. A less-than-cumulatively considerable and less-than-significant cumulative impact would result with compliance with LA County General Plan policies and local ordinances protecting biological resources, and with compliance with Federal and state regulations protecting biological resources.

Mitigation: None required.

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3.6 Cultural Resources

This section identifies and evaluates issues related to cultural resources to determine whether the Project would result in a significant impact on historical, archaeological, or paleontological resources or human remains. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment. Discussion of the Project's significant impacts relating to tribal cultural resources is provided in Section 3.16, *Tribal Cultural Resources*.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. In addition to suggestions that the EIR evaluate the impacts of new and upgraded renewable energy infrastructure to cultural resources, comments recommend the assessment of impacts on cultural resources more generally (e.g., to inadvertently discovered archeological resources and Native American human remains). Scoping comments also recommend sources of relevant information.

3.6.1 Setting

3.6.1.1 Study Area

The study area for this analysis of impacts on cultural resources consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2. The unincorporated areas of Los Angeles County are generally located within two distinct geographies: Los Angeles Basin and the Mojave Desert. The San Gabriel Mountains, which generally form the boundary between the Los Angeles Basin to the north, and the Mojave Desert to the south, are considered part of the Los Angeles Basin.

3.6.1.2 Environmental Setting

Geologic Setting

As indicated by geologic mapping (Yerkes and Campbell 2005), the surficial geology within the study area is varied, with a majority of the deposits composed of Holocene-, Pleistocene-, Pliocene-, and Miocene-age sedimentary deposits. Additionally, there are occurrences of Cretaceous, Jurassic, and Triassic-age metamorphic and igneous rocks associated with the San Gabriel and Eastern Santa Monica mountains in the study area. For areas that are mapped as having Holocene-age deposits at the surface, there may be older, Pleistocene-age deposits at unknown depths within the subsurface (Yerkes and Campbell 2005).

Among the Pliocene- and Miocene-age deposits in the study area, geologic mapping indicates that deposits associated with the Los Angeles Basin (i.e., San Pedro, Inglewood, Puente, and

Fernando formations, and the Topanga Group) are present at the surface, and assumingly, in the subsurface (Yerkes and Campbell 2005).

Prehistoric Setting

Los Angeles Basin

The presence of people in the vicinity of the Los Angeles Basin by at least 11,000 years Before Present (B.P.) is well documented. Some of earliest and most notable cultural sites during the Paleocoastal Period (12,000–8,500 B.P.) are found in the Channel Islands and reflect a mobile, coastally oriented subsistence system. Gradually, people established more permanent settlements along the coast, but also along estuaries, lagoons, lakes, streams, and marshes. During the Millingstone Period (8,500–3,000 B.P.), the use of groundstone intensified as acorns and seeds were added to a broadening diet that included a wider range of fish, shellfish, small mammals, and birds. During the subsequent Intermediate Period (3,000–1,000 B.P.), increased sedentism in small villages and increasing population size is associated with intensified use of existing terrestrial and marine resources, a shift towards lower-ranked resources, increased labor specialization, and expanded trading networks. The Late Period (1,000 B.P.–A.D. 1542) is associated with the florescence of the Gabrielino, characterized by elaborate trade networks relying on shell-bead currency, investment in fishing technology, including plank canoes (Glassow et al. 2007; Cassidy et al. 2004; Wallace 1955; Byrd and Raab 2007; Erlandson 1994; Koerper et al. 2002).

Mojave Desert

During the Paleo-Indian Period (12,000–10,000 B.P.), human occupation in the Mojave Desert is characterized by evidence for small, mobile groups living in temporary camps in the vicinity of permanent water sources. The Lake Mojave Complex (10,000–8,000 B.P.) retained high mobility, but saw diversification of types to include Lake Mojave and Silver Lake projectile points, bifaces, steep-edged unifaces, crescents, and some ground stone implements. The Pinto Complex (8,000–5,000 B.P.) continued the pattern of subsistence diversification and utilization to include new ecological niches; a greater prevalence of flat millingstones and manos indicate a more intensive use and processing of plant resources. Many archeological sites of the Gypsum Complex (4,000–1,800 B.P.) are small and surficial, reflecting a temporary nature. There is greater evidence for inter-tribal trade, as well as introduction of the mortar and pestle. The Rose Springs Complex (1,800–800 B.P.) is associated with renewed sedentism and population growth as evidenced by a proliferation of archaeological sites, particularly well-defined middens, and by greater contact with the coast and the Great Plains. Following periods of drought during the Rose Springs, wetter conditions returned between A.D. 1350 and 1600, associated with the Little Ice Age. By the Late Prehistoric Period (800 B.P. to European contact) an extensive network of established trade routes wound their way through the desert, routing goods to populations throughout the Mojave region (Sutton et al. 2007; Pacific Legacy 2007; Warren 1984; Price et al. 2008; Sutton 1988).

Ethnographic Setting

The study area is situated within land traditionally occupied by five Native American groups: Gabrielino (including the Tongva and Kizh), Tataviam, Serrano, Kitanemuk, and Ventureño Chumash. The following summary is not intended to provide a comprehensive account of these

groups, but is instead a brief historical overview based on available information from resources cited below.

Gabrielino (or Tongva and Kizh)

The term “Gabrielino” is a general term that refers to those Native Americans who were sent by the Spanish to the Mission San Gabriel Arcángel (Bean and Smith 1978). Two indigenous terms are commonly used by tribal groups to refer to themselves and are preferred by descendant groups: Tongva and Kizh (Heizer 1968). Prior to European colonization, the Gabrielino occupied a diverse area that included: the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers; the Los Angeles basin; and the islands of San Clemente, San Nicolas, and Santa Catalina (Bean and Smith 1978). Their neighbors included the Chumash and Tataviam to the north, the Juañeno to the south, and the Serrano and Cahuilla to the east. The Gabrielino are reported to have been second only to the Chumash in terms of population size and regional influence (Bean and Smith 1978). The Gabrielino language was part of the Takic branch of the Uto-Aztecan language family.

The Gabrielino Indians were hunter-gatherers and lived in permanent communities located near the presence of a stable food supply. Subsistence consisted of hunting, fishing, and gathering. Small terrestrial game was hunted with deadfalls, rabbit drives, and by burning undergrowth, while larger game such as deer were hunted using bows and arrows (Bean and Smith 1978). Community populations generally ranged from 50 to 100 inhabitants, although larger settlements may have existed. The Gabrielino are estimated to have had a population numbering around 5,000 in the pre-contact period (Kroeber 1925). The Late Prehistoric period, spanning from approximately 1,500 years B.P. to the mission era, is the period associated with the florescence of the Gabrielino (Wallace 1955). Coming ashore near Malibu Lagoon or Mugu Lagoon in October of 1542, Juan Rodriguez Cabrillo was the first European to make contact with the Gabrielino Indians. Maps produced by early explorers indicate that at least 26 Gabrielino villages were within proximity to known Los Angeles River courses, while an additional 18 villages were reasonably close to the river (Gumprecht 2001).

Tataviam

Tataviam territory was concentrated primarily along the upper reaches of the Santa Clara River drainage between the San Fernando Valley to the south and Pastoria Creek in the Tehachapi Mountains to the north. Their territory also included east Piru Creek and the southern slopes of the Sawmill and Liebre Mountains, and extended into the southern end of the Antelope Valley (King and Blackburn 1978). The northern boundary was likely along upper Piru Creek south of Hungry Valley and Cañada de los Alamos (Johnson and Earle 1990). Tataviam territory was bounded by the Gabrielino to the south, the Serrano to the east, the Kitanemuk to the northeast, the Emigdiano Chumash to the north, and the Ventureño Chumash to the west.

There are few historical sources regarding the Tataviam. The word “Tataviam” most likely came from a Kitanemuk word that may be roughly translated as “people of the south-facing slope,” due to their settlement on south-facing mountain slopes (King and Blackburn 1978). The Chumash referred to them as “Alliklik” (Kroeber 1925). What the Tataviam called themselves is not known. The Tataviam spoke a language that was part of the Takic branch of the Uto-Aztecan

language family (King and Blackburn 1978). Tataviam villages varied in size from larger centers with as many as 200 people, to smaller villages with only a few families (King and Blackburn 1978). At the time of Spanish contact, the Tataviam population is estimated to have been less than 1,000. Primary vegetable food sources included acorns, juniper berries, seeds, and yucca buds. Small game such as antelope and deer supplemented these foods. Trade networks between inland groups such as the Tataviam, the coastal regions, and desert regions enabled the trade of exotic materials such as shell, asphaltum, and steatite.

Ventureño Chumash

Ventureño territory extended from the Pacific coast in the vicinity of Ventura in the west to the area between Sespe and Piru Creeks in the middle portion of the Santa Clara River drainage in the west, and from the headwaters of Sespe Creek in the north to the area around Malibu Creek in the south (Kroeber 1925: plate 48; Grant 1978a: 506). However, by the Mission period Ventureño territory extended just east of Piru Creek (King 1975:175; Glassow et al. 2007:206). The Ventureño Chumash were bounded by the Tataviam to the east, the Gabrielino-Tongva to the southeast, the Emigdiano Chumash to the north, and the Barbareño, Ynezeño, and Cuyama Chumash to the west.

The Chumash were hunter-gatherers and lived in permanent villages. The size of Chumash villages ranged considerably from the coastal areas to the inland areas with many villages on the coast having several hundred occupants (Grant 1978b: 510), whereas villages inland were significantly smaller, sometimes containing only a couple dozen inhabitants (Grant 1978c: 533). At the beginning of the Mission period, it is estimated that the overall Chumash population ranged from 8,000 to 10,000 (Kroeber 1925: 551), with a population estimate for the Ventureño ranging from 2,500 to 4,200 (Grant 1978b: 519). Chumash villages were most abundantly located along the coast and were often situated on high ground adjacent to a river or stream that flowed into the ocean or along the borders of sloughs or wetlands (Grant 1978b: 510). Ventureño villages often were located near permanent, reliable water sources and were most abundant along the Ventura River and Santa Clara River, and Calleguas Creek. Chumash subsistence included both terrestrial and maritime resources (Grant 1978b: 517). Chumash villages were composed of a patrilineal descent group and usually had at least one chief, known as the *wot* or *wocha*, whose position was inherited but was subject to village approval (Grant 1978b: 510).

Serrano

The Serrano occupied territories that ranged from low or moderately low desert to the mountain regions of the Transverse and Peninsular ranges bordered to the west roughly by the Cajon Pass in the San Bernardino Mountains, to the east by Twenty-Nine Palms, and to the south by Yucaipa Valley. The Serrano inhabited areas both north and south of the San Bernardino Mountains, and also encompassed the western end of the Mojave Desert (including Lovejoy Springs) in portions of Los Angeles County (Price et al. 2008). The Serrano were organized into clans, with the clan being the largest autonomous political entity. They lived in small villages where extended families lived in circular, dome-shaped structures made of willow frames covered with tule thatching. Each clan had one or more principal villages in addition to numerous smaller villages associated with the principal village (Price et al. 2008). Villages located at higher elevations were placed near canyons that received substantial precipitation or were adjacent to streams and springs. Villages situated at

lower elevations were also located close to springs or in proximity to the termini of alluvial fans where the high-water table provided abundant mesquite and shallow wells could be dug.

The Serrano subsistence strategy relied upon hunting and gathering, and occasionally fishing. Villages divided into smaller, mobile gathering groups during certain seasons to gather seasonally available foods. The division of labor was split between women gathering and men hunting and fishing (Bean and Smith 1978; Warren 1984). Mountain sheep, deer, rabbits, acorns, grass seeds, piñon nuts, bulbs, yucca roots, cacti fruit, berries, and mesquite were some of the more common resources utilized (Bean and Smith 1978; Warren 1984). Despite early European and Spanish contact in 1771, the Serrano remained relatively autonomous until the period between 1819 and 1834 when most of the western Serrano were removed and placed into missions (Bean and Smith 1978; Warren 1984).

Kitanemuk

The Kitanemuk were the northern neighbors of the Tataviam, and occupied a territory that extended from the Tehachapi Mountains (Tehachapis) into the western end of the Antelope Valley (covering a small portion of Los Angeles County on the northeast). While most of their recorded villages were located in the Tehachapis, their settlement pattern is poorly understood. Some scholars posit that the Antelope Valley's desert floor was used only on a seasonal basis, while others point to archaeological evidence of permanent occupation of the desert floor during the Late Prehistoric Period (Sutton 1980). While the Kitanemuk maintained friendly relations with their other neighbors such as the Chumash, historic evidence indicates that their relationship with the Tataviam was generally hostile (Blackburn and Bean 1978).

Like other Takic-speaking groups, such as the Serrano, Kitanemuk society had a patrilineal organization. Families grouped together into villages, which were headed by a team of "administrative elite" composed of a chief, messengers, and shamans. Kitanemuk subsistence was similar to the Tataviam. Historic data on the Kitanemuk is lacking, and the only historical mention of the group comes from explorer Francisco Garces in 1776 (as cited in Blackburn and Bean 1978). The only major source of ethnographic data comes from J. P. Harrington's 1917 notes on interviews conducted with the few surviving Kitanemuk at Tejon Ranch (as cited in Blackburn and Bean 1978).

Historic Setting

Although Spanish explorers made brief visits to the region in 1542 and 1602, sustained European exploration of southern California began in 1769 (Johnson and Earle 1990). In the late 18th century, the Spanish began establishing missions in California and forcibly relocating and converting native peoples. In 1771, Father Junípero Serra founded Mission San Gabriel and Father Fermín Francisco de Lasuén founded the Mission San Fernando Rey de España by 1797 (California Missions 2019, 2021). Disease and hard labor took a toll on the native population in California; by 1900, the Native Californian population had declined by as much as 90 percent (Cook 1978). In addition, native economies were disrupted, trade routes were interrupted, and native ways of life were significantly altered.

The Mexican Period began when Mexico won its independence from Spain in 1821. Mexico continued to promote settlement of California with the issuance of land grants. In 1833, Mexico began the process of secularizing the missions, reclaiming the majority of mission lands and redistributing them as land grants. According to the terms of the Secularization Law of 1833 and Regulations of 1834, at least a portion of the lands would be returned to the Native populations, but this did not always occur (Milliken et al. 2009).

In 1846, the Mexican-American War broke out. Mexican forces were eventually defeated in 1847 and Mexico ceded California to the United States as part of the Treaty of Guadalupe Hidalgo in 1848. California officially became one of the United States in 1850. While the treaty recognized right of Mexican citizens to retain ownership of land granted to them by Spanish or Mexican authorities, the claimant was required to prove their right to the land before a patent was given. The process was lengthy, and generally resulted in the claimant losing at least a portion of their land to attorney's fees and other costs associated with proving ownership (Starr 2007).

The first transcontinental railroad was completed in 1869, connecting San Francisco with the eastern United States. Newcomers poured into northern California. Southern California experienced a trickle-down effect, as many of these newcomers made their way south. The Southern Pacific Railroad extended this line from San Francisco to Los Angeles in 1876. The second transcontinental line, the Santa Fe, was completed in 1886 and caused a fare war, driving fares to an unprecedented low. Settlers flooded into the region and the demand for real estate skyrocketed. As real estate prices soared, land that had been farmed for decades outlived its agricultural value and was sold to become residential communities. The subdivision of the large ranchos took place during this time (Meyer 1981; McWilliams 1946).

Archaeological Resources Setting

Los Angeles Basin

The geology of the portions of the Los Angeles Basin underlying the study area is varied. Large swaths, including the San Gabriel Mountains, Santa Monica Mountains, Channel Islands, and Puente and Repetto Hills, are underlain by various sedimentary, volcanic, and metamorphic bedrock, while other areas are underlain by Pleistocene to Holocene-aged alluvium. Areas underlain by bedrock would be expected to have a lower sensitivity to contain buried, in situ archaeological sites, as these areas have generally not been subject to substantial deposition within the time frame of human occupation of Southern California, as well as being subject to long-term erosion. Conversely, alluvial fans, particularly those dating to the Holocene have a higher sensitivity to contain buried archaeological sites. However, the high degree of urbanization within the Los Angeles basin, which has resulted in widespread grading and filling, is likely to have diminished the archaeological potential of many areas and would need to be assessed on a site-by-site basis.

Mojave Desert

Portions of the Mojave Desert encompassing the study area are underlain primarily by alluvial fan deposits (for example, see Dibblee and Minch 2008). This material consists of gravel, sand, and silt eroded from the San Gabriel Mountains and transported into the Antelope Valley, and then reworked by streams. While areas of dissected, older, Pleistocene-aged fans exist, the majority of

surficial deposits date to the Holocene period. Holocene-aged alluvial fan and floodplain deposits have a higher sensitivity to contain buried, in situ archaeological sites, as these deposits both formed within the timeframe of human occupation of the region, and were laid down in a manner conducive to burying and preserving archaeological sites. In contrast, the older alluvial fans appear to have a lower sensitivity to contain deeply buried, in situ archaeological sites, based on their age and tendency towards erosion. Additionally, a portion of the northeast corner of the study area is underlain by Jurassic-aged granitic rock; while this geological unit could retain archaeological sites at ground surface, it is considered to have a low sensitivity for archaeological sites at depth.

Paleontological Setting

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones; e.g., mammals, birds, fish), invertebrates (animals without backbones; e.g., starfish, clams, coral), and microscopic plants and animals (microfossils), and can include mineralized body parts, body impressions, or footprints and burrows. They are valuable, nonrenewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived.

Paleontological sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils. This is determined by rock type, past history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. In its “Standard Guidelines for the Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontologic Resources,” the Society of Vertebrate Paleontology (SVP) (2010) defines four categories of paleontological sensitivity (potential) for rock units: high, low, undetermined, and no potential. For geologic units with high potential, full-time monitoring is generally required during all ground disturbance. For geologic units with low to high potential, monitoring is generally required at certain depths. For geologic units with low potential or no potential, monitoring is not generally required. For geologic units with undetermined potential, monitoring is generally required at the initiation of excavation until potential is further assessed.

In general, Holocene-age alluvial deposits are considered to have a low potential to contain significant paleontological resources, based on the recent age of the deposits (SVP 2010); late Holocene-age deposits (i.e., younger than 5,000 radiocarbon years) have a particularly low potential. Deposits that date to the middle Holocene (i.e., older than 5,000 radiocarbon years) have a potential that increases as the depth into the deposits increases. In general, Pleistocene-age sedimentary deposits are considered to have a high potential to contain significant paleontological resources, as is evident by the numerous fossil discoveries throughout California (UCMP 2021; Sub Terra Consulting 2017)—as well as within Los Angeles County (UCMP 2021a). The exact transition from Holocene- to Pleistocene-age deposits varies depending on local conditions. Additionally, due to the previous fossil discoveries from within the Pliocene- and Miocene-age deposits (UCMP 2021b) from the County, the formations from this age range would be considered to have a high potential to contain significant paleontological resources as well. Lastly, numerous outcrops of Cretaceous, Jurassic, and Triassic metamorphic and igneous formations underlie and extrude in the study area. Under certain rare conditions, metamorphic

rock may preserve fossils (SVP 2010). Igneous formations are considered to have no potential to contain significant paleontological resources based on the environments in which these rock types were produced.

3.6.1.3 Identified Cultural Resources

Historical Resources

Review of the Cultural Resources Technical Report prepared for the General Plan EIR indicates that a comprehensive survey to “identify, record, and designate historical resources” in unincorporated areas of the County has not been conducted (Sapphos Environmental, Inc. 2014). See Figure 5.5-1, *Historic Resources Sites Policy Map*, in Chapter 5 of the Draft EIR for LA County’s General Plan Update. Moreover, the technical report mentions that approximately 37 resources listed in the National Register of Historic Places (National Register), National Historical Landmarks, California Historical Landmarks, and California Points of Historical Interest were located in unincorporated areas of the County as of 2014. These resources are identified in **Tables 3.6-1 through 3.6-4**. In addition, the LA County Historical Landmarks are identified in **Table 3.6-5**.

**TABLE 3.6-1
 PROPERTIES IN THE NATIONAL REGISTER OF HISTORIC PLACES**

Name	Location	Year Listed
Antelope Valley Indian Museum	15701 East Avenue, Lancaster	1987
Christmas Tree Lane	Santa Rosa Avenue between Woodbury Avenue and Altadena Drive, Altadena	1990
Crank House	2186 Crary Street, Altadena	1997
Dominguez Ranch Adobe	18127 S. Alameda Street, Compton	1976
Farnsworth, Gen. Charles S., County Park	568 E. Mt. Curve Avenue, Altadena	1997
Gano, Peter, House	718 Crescent Avenue, Avalon	1983
Grey, Zane, Estate	396 E. Mariposa Street, Altadena	2002
Keyes Bungalow	1337 E. Boston Street, Altadena	1978
McNally, Andrew, House	654 E. Mariposa Street, Altadena	2007
Mount Lowe Railway	North of Altadena Angeles National Forest, Altadena	1993
Pacific Electric Railway Company Substation No. 8	2245 North Lake Avenue, Altadena	1977
Pitzer House	4353 North Towne, Claremont	1986
Ridge Route, Old	Along Old Ridge Route (roughly bounded by Sandberg and Canton Canyon), Castaic	1997
Scripps Hall	209 East Mariposa Street, Altadena	1999
Tuna Club of Avalon	100 St. Catherine Way, Catalina Island, Avalon	1991
*Vasquez Rocks	Agua Dulce Road, Agua Dulce	1972
Well No. 4, Pico Canyon Oil Field	9.5 miles North of San Fernando, West of US 99, San Fernando	1966
Woodbury-Story House	2606 North Madison Avenue, Altadena	1993
Wrigley, William, Jr., Summer Cottage	76 Wrigley Road, Avalon	1985

NOTES:

* Archaeological Site; address restricted

SOURCE: Sapphos Environmental, Inc. 2014

**TABLE 3.6-2
NATIONAL HISTORIC LANDMARKS**

Name	Location	Year Listed
Well No. 4, Pico Canyon Oil Field	Los Angeles County	1966

SOURCE: Sapphos Environmental, Inc. 2014

**TABLE 3.6-3
CALIFORNIA HISTORIC LANDMARKS**

Name	Location	CHL No.	Listed in National Register	Listed in California Register
Domínguez Ranchhouse	18127 South Alameda, Compton	152		
Oak of the Golden Dream	Placerita Canyon State and County Park, Placerita Canyon Road, 4.6 miles Northeast of Newhall, Los Angeles	168		
Pomona Water Powerplant	Camp Baldy Road (P.M. 2.0), San Antonio Canyon, 8.1 miles North of State Highway 166, Claremont	514		
Well, CSO 4 (Pico 4)	On West Pico Canyon Road, 3.3 miles West of I-5, Newhall	516		
Mentryville	27201 West Pico Canyon Road, 2.8 miles West of I-5, Newhall	516-2		
Rancho San Francisco	Southwest corner of "the Old Road" and Henry Mayo Drive, 0.2 miles South of I-5 and State Highway 126 Interchange, Valencia	556		
Lang	Soledad Canyon Lang Station Road (0.4 miles South of State Highway 14 (P.M. 35.6), Shadow Pines Boulevard, 4.7 miles East of Canyon Country	590		
Old Short Cut	Angeles National Forest, Chilao Visitor's Center Angeles Crest Highway (State Hwy 2), 27 miles East of La Canada	632		
The Angeles National Forest	San Gabriel Mountains Clear Creek Vista Point, State Highway 2 (P.M. 32.8), 8.3 miles North of I-210, La Canada	717		
St. Francis Dam Disaster Site	San Francisquito Power Plant No. 2, 32300 North San Francisquito Canyon Road, 9.2 miles North of Saugus	919		Yes
Site of Llano del Rio Cooperative Colony	On State Highway 138 (P.M. 64.1), Llano	933		Yes
Point Dume	Point Dume State Beach (corner of Cliffside Drive and Birdview Avenue), Malibu	965		Yes
Christmas Tree Lane	Santa Rose Avenue (both sides of street from Woodbury Avenue to Altadena Drive), Altadena	990	Yes	Yes
Tuna Club of Avalon	100 Street Catherine Way, Avalon	997	Yes	Yes
Beale's Cut Stagecoach Pass	Intersection of Sierra Highway and Clampitt Road, Santa Clarita	1006		Yes

NOTES: California Register = California Register of Historical Resources; CHL = California Historic Landmark; National Register = National Register of Historic Places

SOURCE: Sapphos Environmental, Inc. 2014

**TABLE 3.6-4
 CALIFORNIA POINTS OF HISTORICAL INTEREST**

Name	Location	CPHI No.
Altadena Town and Country Club	2290 Country Club Drive, Altadena	52
Antelope Valley Indian Museum	15701 East Avenue, Lancaster	33
Bassett Elementary School	546 N. Vineland Avenue, Bassett	34
Pacific Electric Railway, Firestone	E. Firestone Boulevard, (vicinity of) Florence	40
Santa Susana Stage Road	San Fernando	10
Soledad-Acton Schoolhouse	32248 N. Crown Valley Road, Acton	14
Sylvia Park Country Club Clubhouse	20421 Callon Drive, Topanga	57
Topanga Christian Fellowship Church	269 Old Topanga Canyon Road, Topanga	65
Woodbury/Story House	2606 N. Madison Avenue, Altadena	12

NOTE: CPHI = California Point of Historical Interest

SOURCE: Sapphos Environmental, Inc. 2014

**TABLE 3.6-5
 COUNTY OF LOS ANGELES HISTORICAL LANDMARKS**

Name	Location	Year Listed
Hollywood Bowl Performing Arts Center Complex	2301 Highland Avenue, Los Angeles	2000
Dumakes House	4918 Angeles Vista Blvd., View Park	2016
McLeod House	717 E. Baseline Rd, West Claremont	2017
Chester Washington Golf Course	1818 Charlie Sifford Dr., Los Angeles	2020
Anderson House	19974 Sischo Dr., Topanga	2020
Packard House	1496 N. Dominion Ave., Pasadena	2020
Alpine Village	833 W. Torrance Blvd., Torrance	2020
Holmes House	1022 Parkman St., Altadena	2020

SOURCE: County of Los Angeles 2022

Archaeological Resources

According to Chapter 5 of LA County’s General Plan Update EIR, over 3,979 archaeological sites have been recorded in Los Angeles County. Due to the sensitive nature of archaeological sites and as required under state law, locations are not published herein. Archaeological materials have been found throughout the County, in both urbanized and undeveloped locations.

Paleontological Resources

Records available through the University of California Museum of Paleontology (UCMP) online fossil localities database indicate numerous fossil localities within Los Angeles County. Among the available records, there are 77 vertebrate, 1,767 invertebrate, 108 plant, and 271 microfossil localities, several from the deposits that occur in the study area (UCMP 2021a). Additionally,

Chapter 5 of the General Plan Update EIR indicates that some significant fossil localities have been identified in Los Angeles County. These localities are identified in **Table 3.6-6**.

**TABLE 3.6-6
 SIGNIFICANT GENERAL FOSSIL LOCALITIES IN LOS ANGELES COUNTY**

Location	Fossil Type	Formations
La Brea Tar Pits	N/A	N/A
Palos Verdes Peninsula	Mastadon, mammoth, horse, camel, sloth	Palos Verdes Sand
Palos Verdes Peninsula	Grey whale	San Pedro
Palos Verdes Peninsula	Fish, birds, sea lion, plants, baleen whale, horse, sloth, sea otter, mammoth, mastodon, bison, camel, tapir	Monterey Shale
Palos Verdes Peninsula	Dolphin	Monterey Shale
Santa Monica Mountains (Topanga Canyon)	Cypraeid gastropod	Topanga
Santa Monica Mountains (Old Topanga Canyon Road, Piuma Road)	Multiple	Topanga
Mint Canyon	Oldest hawk in California	Tick Canyon
Mint Canyon	Horse, elephant, camel	Mint Canyon
Puente Hills (Hacienda Heights)	Fish	Puente
Puente Hills (Diamond Bar)	Fish and leaves	Puente

NOTE: N/A = not applicable

SOURCE: Los Angeles County General Plan Update 2014

Unique Geologic Features

CEQA does not provide a definition of “unique geologic feature,” nor does it provide guidance on what should be considered a unique geologic feature. The following is adapted from the *County of San Diego Guidelines for Determining Significance: Unique Geology* (2007). LA County does not maintain a list of unique geologic features, and documenting unique geologic features in the entire County would require extensive research, which is not required for this EIR’s programmatic analysis.

A geologic feature is considered unique if it meets one or more of the following criteria:

- Best example of its kind locally or regionally.
- Embodies the distinctive characteristics of a geologic principle that is exclusive locally or regionally.
- Provides a key piece of geologic information important in geology or geologic history.
- Is a “type locality” of a geologic feature.
- Is a geologic formation that is exclusive locally or regionally.

- Contains a mineral that is not known to occur elsewhere in the region.
- Is use repeatedly as a teaching tool.

3.6.1.4 Regulatory Setting

Federal Laws, Regulations, and Policies

Antiquities Act of 1906

In 1906, the Antiquities Act (United States Code [U.S.C.] Title 54, Sections 320301–320303 [54 U.S.C. 320301–320303]) was enacted to help protect any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Federal Government. This law further authorizes the President of the United States to declare national monuments by public proclamation of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal lands. The Antiquities Act was used to proclaim several national monuments based upon significant paleontological resources. Paleontological resources located within designated national monuments are protected under the Antiquities Act.

National Historic Preservation Act of 1966

The principal federal law addressing historic properties is the National Historic Preservation Act (NHPA), as amended (54 U.S.C. 300101 et seq.), and its implementing regulations (Code of Federal Regulations (CFR) Title 36, Part 800 [36 CFR 800]). Section 106 of the NHPA requires a federal agency with jurisdiction over a proposed federal action (referred to as an *undertaking*) to take into account the effects of the undertaking on historic properties, and to provide the Advisory Council on Historic Preservation an opportunity to comment on the undertaking.

The term *historic properties* refers to “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register” (36 CFR 800.16[1]). The implementing regulations (36 CFR 800) describe the process for identifying and evaluating historic properties, for assessing the potential adverse effects of federal undertakings on historic properties, and seeking to develop measures to avoid, minimize, or mitigate adverse effects. The Section 106 process does not require the preservation of historic properties; instead, it is a procedural requirement mandating that federal agencies take into account effects on historic properties from an undertaking prior to approval.

The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Officer, federally recognized Indian tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects on such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties. The agency also must provide an opportunity for public involvement (36 CFR 800.1[a]). Consultation with Indian tribes regarding issues related to Section 106 and other authorities (such as the National Environmental Policy Act [NEPA] and Executive Order No. 13007) must recognize the government-to-government relationship between the federal government and Indian tribes, as set forth in Executive Order 13175, *Federal Register* Volume

65, page 87249 (65 FR 87249) (November 9, 2000), and the Presidential Memorandum of November 5, 2009.

Under the NHPA, the Secretary of the Interior is responsible for establishing professional standards and for providing guidance on the preservation of the nation's historic properties. See the following discussion of these standards.

National Register of Historic Places

The National Register was established by the NHPA of 1966, as “an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation’s historic resources and to indicate what properties should be considered for protection from destruction or impairment” (36 CFR 60.2) (U.S. Department of the Interior 2002). The National Register recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, prehistoric archaeological sites, historic-period archaeological sites, traditional cultural properties, and cultural landscapes. As noted above, a resource that is listed in or eligible for listing in the National Register is considered “historic property” under Section 106 of the NHPA.

To be eligible for listing in the National Register, a property must be significant in American history, architecture, archaeology, engineering, or culture. Properties of potential significance must meet one or more of the following four established criteria:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history.
- B. Are associated with the lives of persons significant in our past.
- C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- D. Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the criteria of significance, a property must have integrity. Integrity is defined as the ability of a property to convey its significance. The National Register recognizes seven qualities that, in various combinations, define integrity. These qualities include location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

Ordinarily, religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are not considered eligible for the National Register unless they meet one of the Criteria Considerations (A–G), in addition to meeting at least one of the four significance criteria and possessing integrity.

Archaeological and Historic Preservation Act of 1974

The Archaeological and Historic Preservation Act of 1974 is also known as the Archaeological Recovery Act and the Moss-Bennett Bill. This law provides for the preservation of significant scientific, prehistoric, historic, and archaeological materials and data that might be lost or destroyed as a result of: (1) flooding, the building of access roads, the erection of workmen’s communities, the relocation of railroads and highways, and other alterations of the terrain caused by the construction of a dam by any agency of the United States, or by any private person or corporation holding a license issued by any such agency; or (2) any alteration of the terrain caused as a result of any federal construction project or federally licensed activity or program. The Act also provides for the preservation of sites or objects of national significance by focusing attention on significant resources and data, but does not require that they be shown to be of “national” significance.

The Archaeological and Historic Preservation Act made clear that all federal agencies were authorized to fund archaeological investigations, reports, and other kinds of activities to mitigate the impacts of their projects on important archaeological sites. The Act provides that up to 1 percent of congressionally authorized funds for a project may be spent from appropriated project funds to recover, preserve, and protect archaeological and historical data.

The Act is also one of the statutory authorities for the curation and care of federal archaeological collections and associated records (36 CFR 79).

Archaeological Resources Protection Act of 1979

The Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa–470mm) was enacted to “secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals.” Under this Act, *archaeological resources* are defined as material remains of past human life or activities that are of archaeological interest and are over 100 years old. The primary focus of the Archaeological Resources Protection Act is to protect archaeological resources on public and Indian lands, and to prevent looting and destruction of archaeological resources. The statute provides for stiff civil and criminal penalties, including fines up to \$100,000 and/or 5 years in prison for second-time offenders. The Act also governs archaeological excavation and disposition of collections from sites on public and Indian lands, and requires researchers to obtain a permit prior to excavating or removing any archaeological materials on federal lands. The Archaeological Resources Protection Act further requires that the nature and location of archaeological resources be kept confidential unless providing the information would further the purposes of the statute and not create a risk of harm to such resources.

Native American Graves Protection and Repatriation Act of 1990

Requirements for responding to discoveries of Native American human remains and associated funerary objects on federal land are addressed under the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) (25 U.S.C. 3001–3013) and its implementing regulations

(43 CFR 10). If human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered on federal or tribal lands, the federal agency must determine and consult with the lineal descendants and culturally affiliated Indian tribes, and carry out appropriate treatment and disposition of the discovered remains, including transfer of custody. An *Indian tribe* is defined as any tribe, band, nation, or other organized group or community of Indians that is recognized as eligible for the special programs and services provided by the U.S. to Indians because of their status as Indians. NAGPRA does not require federal agencies to consult with non-federally recognized tribes. However, there are some cases in which non-federally recognized tribes may be appropriate claimants for cultural items. Federal agencies that wish to return Native American human remains and cultural items to non-federally recognized tribes may do so after review and approval by the NAGPRA Review Committee.

NAGPRA also requires permitting of the intentional removal from, or excavation of, Native American cultural items from federal or tribal lands for purposes of discovery, study, or removal; establishes criminal penalties for trafficking in human remains or cultural objects; and requires agencies and museums that receive federal funding to inventory those items in their possession, identify the descendants of and repatriate those items.

Paleontological Resources Preservation Act of 2009

The primary legislation pertaining to fossils located on federal lands is the Paleontological Resources Preservation Act of 2009 (PRPA) (16 U.S.C. Section 470aaa 1–11), which was enacted on March 30, 2009, within the Omnibus Public Land Management Act of 2009. PRPA requires the U.S. Department of Agriculture and the U.S. Department of the Interior to manage and protect paleontological resources on federal land using scientific principles and expertise. PRPA, which applies only to federal land, provides specific mandates for administering paleontological resource research and collecting permits and the curation of fossil specimens in museum collections. PRPA also includes provisions for both criminal and civil penalties associated with paleontological resource crimes on federal lands. As directed by PRPA, federal agencies are in the process of developing implementing regulations.

State Laws, Regulations, and Policies

California Environmental Quality Act

CEQA (Public Resources Code Section 21000 et seq.) is the principal statute governing environmental review of projects occurring in the state. CEQA requires lead agencies to determine whether a proposed project would have a significant impact on the environment, including significant impacts on historical or unique archaeological resources. Under CEQA, a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant impact on the environment (Public Resources Code Section 21084.1).

The CEQA Guidelines (California Code of Regulations Title 14, Section 15064.5) recognize that historical resources include: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (California Register); (2) a resource included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k) or identified as significant in a historical resource

survey meeting the requirements of Public Resources Code Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Section 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Public Resources Code Section 21084.1 and Section 15064.5 of the CEQA Guidelines apply. If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Public Resources Code Section 21083, as a "unique" archaeological resource.

A significant impact would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5(a). *Substantial adverse change* is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired" (CEQA Guidelines Section 15064.5[b][1]). According to CEQA Guidelines Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that:

- A. Convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register; or
- B. Account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the impacts of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- C. Convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a Lead Agency for purposes of CEQA.

In general, a project that complies with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (Grimmer 2017) is considered to have mitigated its impacts on historical resources to a less-than-significant level (CEQA Guidelines Section 15064.5[b][3]).

Secretary of the Interior's Standards

The Secretary of the Interior's Standards (36 CFR 68) were originally designed for use by the National Park Service and intended for application in a federal context. The stated intent of the Standards is to "set forth standards for the treatment of historic properties containing standards for preservation, rehabilitation, restoration, and reconstruction" (36 CFR 68.1). One set of standards—preservation, rehabilitation, restoration, or reconstruction—will apply to a property

undergoing treatment, depending upon the property’s significance, existing physical condition, the extent of documentation available and interpretive goals, when applicable, and are to be applied in a reasonable manner, taking into consideration economic and technical feasibility (36 CFR 68.3). The Standards for Rehabilitation (as defined under 36 CFR 68.3[b]) are most applicable to projects where compatibility with historic building alterations or alterations to a building’s environment is being evaluated and can pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and the interior, related landscape features and the building’s site and environment as well as attached, adjacent, or related new construction.

The Secretary of the Interior’s Standards were subsequently incorporated into Public Resources Code Section 15164.5(b) as a gauge against which lead agencies complying with CEQA could measure project impacts on historical resources. As stated under the prior CEQA subsection, generally a project that complies with the Secretary of the Interior’s Standards is considered to have mitigated its impacts on historical resources to a less-than-significant level (CEQA Guidelines Section 15064.5(b)(3); see also *League for Protection of Oakland’s Architectural and Historic Resources v. City of Oakland* (1997) 52 Cal.App.4th 896). Although not prescriptive and as suggested by the term “generally” as used in the Public Resources Code, the appropriate application of the Secretary of the Interior’s Standards, or a subset thereof, requires careful consideration by a lead agency of the specific significance, characteristics, and condition of the historical resource for which impacts are being evaluated.

California Register of Historical Resources

The California Register is “an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (Public Resources Code Section 5024.1[a]). The criteria for eligibility for the California Register are based upon National Register criteria (Public Resources Code Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be

recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically such as the following:

- California properties listed on the National Register and those formally determined eligible for the National Register.
- California Registered Historical Landmarks from No. 770 onward.
- Those California Points of Historical Interest that have been evaluated by the Office of Historic Preservation and have been recommended to the State Historical Commission for inclusion on the California Register.

Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 requires that in the event human remains are discovered, the County Coroner is to be contacted to determine the nature of the remains. In the event the remains are determined to be Native American in origin, the County Coroner is required to contact the Native American Heritage Commission (NAHC) within 24 hours to relinquish jurisdiction.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the landowner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

California Public Resources Code Sections 5097.98, 5097.5, and 30244

Public Resources Code Section 5097.98, as amended, provides procedures in the event human remains of Native American origin are discovered during project implementation. Public Resources Code Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. Public Resources Code Section 5097.98 further requires the NAHC, upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. The MLD has 48 hours from the time of being granted access to the site by the landowner to inspect the discovery and provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

Other state requirements for archaeological and paleontological resource management are included in Public Resources Code Sections 5097.5 and 30244. Section 5097.5 states that “a person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.” Section 5097.5 also states that “a violation of this section is a misdemeanor, punishable by a fine not exceeding ten thousand dollars (\$10,000), or by imprisonment in a county jail not to exceed one year, or by both that fine and imprisonment.” This section defines *public lands* as “lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.”

Government Code Sections 6254(r) and 6254.10

These sections of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to “Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission.” Section 6254.10 specifically exempts from disclosure requests for “records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the NAHC, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency.”

Local Laws, Regulations, and Policies

Los Angeles County Historic Preservation Ordinance

The LA County Board of Supervisors adopted LA County’s Historic Preservation Ordinance (HPO) on September 1, 2015 (LA County Historic Preservation Ordinance, Ord. 2015-0033 Section 3, 2015). The HPO establishes criteria for designating landmarks and historic districts and provides protective measures for designated and eligible historic resources. The HPO applies to all privately owned property within the unincorporated territory of the County and all publicly owned landmarks, except properties that were not listed prior to the issuance of a demolition permit or properties affiliated with religious organizations. The HPO defines a *landmark* as “any property, including any structure, site, place, object, tree, landscape, or natural feature, that is designated as a landmark by the Board of Supervisors.” The HPO defines a *historic district* as “A contiguous or noncontiguous geographic area containing one or more contributing properties which has been designated as an historic district by the Board of Supervisors.” Landmarks and historic districts may be designated if it is at least 50 years of age and meets at least one of the following criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of the history of the nation, state, county, or community in which it is located.
2. It is associated with the lives of persons who are significant in the history of the nation, state, county, or community in which it is located.

3. It embodies the distinctive characteristics of a type, architectural style, period, or method of construction, or represents the work of an architect, designer, engineer, or builder whose work is of significance to the nation, state, county, or community in which it is located; or possesses artistic values of significance to the nation, state, county, or community in which it is located.
4. It has yielded, or may be likely to yield, significant and important information regarding the prehistory or history of the nation, state, county, or community in which it is located.
5. It is listed, or has been formally determined eligible by the United States National Park Service for listing, in the National Register of Historic Places, or is listed, or has been formally determined eligible by the State Historical Resources Commission for listing, on the California Register of Historical Resources.
6. If it is a tree, it is one of the largest or oldest trees of the species located in the county.
7. If it is a tree, landscape, or other natural land feature, it has historical significance due to an association with an historic event, person, site, street, or structure, or because it is a defining or significant outstanding feature of a neighborhood.

Los Angeles County General Plan (2035)

The Los Angeles County General Plan (2035) has the following goals and policies for the preservation of historic (built environment/historic architectural), cultural (archaeological), and paleontological resources.

Goal C/NR 14: Protected historic, cultural, and paleontological resources.

Policy C/NR 14.1: Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.

Policy C/NR 14.2: Support an inter-jurisdictional collaborative system that protects and enhances historic, cultural, and paleontological resources.

Policy C/NR 14.3: Support the preservation and rehabilitation of historic buildings.

Policy C/NR 14.4: Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).

Policy C/NR 14.5: Promote public awareness of historic, cultural, and paleontological resources.

Policy C/NR 14.6: Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

3.6.2 Impact Analysis

3.6.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist. The Project would result in a significant impact on cultural resources if it would:

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5;
- b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- d) Disturb any human remains, including those interred outside of dedicated cemeteries.

3.6.2.2 Methodology

Impacts on historical resources, unique archaeological resources, and human remains that may result from the Draft 2045 CAP are evaluated at a programmatic level based on broad patterns of prehistoric and historic habitation of unincorporated areas of the County, geoarchaeological review, and a review of the Cultural Resources Technical Report prepared for LA County’s General Plan EIR (Sapphos Environmental, Inc. 2014). Similarly, impacts on unique paleontological resources or sites or unique geologic features are evaluated at a programmatic level using the same information. Projects facilitated by Draft 2045 CAP measures and actions would require their own environmental review that would include a project-specific cultural resources records search through the California Historical Resources Information System, a paleontological records check with the Natural History Museum of Los Angeles County, and cultural and paleontological pedestrian surveys. As such, records searches and surveys are not needed at this time.

3.6.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas (GHG) emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics, because the location and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of the implementation of specific measures and actions were considered as part of this analysis to the degree specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic (PV) projects, and associated energy storage and distribution facilities, are qualitatively evaluated at a programmatic level.

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than the project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of cultural resources–related impacts. These and other relevant measures and actions include the renewable energy and related infrastructure projects that would be

facilitated by Draft 2045 CAP measures and actions toward the following categories of strategies: (1) Decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (2) The electrification of vehicles (e.g., Measure T6, Increase Zero-Emission Vehicle Market Share; Measure T7, Electrify LA County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (3) The electrification of buildings (Strategy 5, Decarbonize Buildings).

Renewable energy and related infrastructure projects would also be facilitated by Draft 2045 CAP measures and actions that could facilitate development of more rural or open lands in areas of the unincorporated County where comparatively minimal ground disturbance has occurred, and that could facilitate retrofit of historic structures. Such projects are particularly relevant to the analysis of impacts on cultural resources because related development could affect the following: historic resources; subsurface resources such as unique archaeological resources; unique paleontological resources, sites, or unique geologic features; or human remains, including human remains interred outside of dedicated cemeteries. Specific impacts of the Draft 2045 CAP related to cultural resources, including projects facilitated by Draft 2045 CAP measures and actions, are discussed below. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

Specific cultural resources-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.

Impact 3.6-1: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. (*Less than Significant with Mitigation Incorporated*)

Historical resources include built resources (buildings, structures, objects) and archaeological resources that meet the criteria outlined in CEQA Guidelines Section 15064.5(a). The Draft 2045 CAP encompasses the vast unincorporated areas of the County, including areas of the Los Angeles Basin and the Mojave Desert. Known historical resources in the unincorporated areas include 37 resources either listed in the National Register or designated as National Historical Landmarks, California Historical Landmarks, or California Points of Historical Interest (Sapphos Environmental, Inc. 2014). There are also numerous known prehistoric and historic-period archaeological resources throughout these areas and the geoarchaeological review indicates that there is a potential for unknown resources to be discovered. For these reasons, it is likely that additional resources will be identified as future projects implementing Draft 2045 CAP measures and actions take place and as additional historical resource studies are conducted.

The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under 2035 General Plan land use assumptions. Projects facilitated by Draft 2045 CAP measures and actions could include utility-scale energy projects (e.g., solar, battery storage, substation, transmission infrastructure) and other projects that would involve structural improvements and/or ground disturbing activities that could, depending on their location, result in direct or indirect adverse changes to the significance of historical resources. For example, such changes could result from increased residential density/increased mixed use (Measures T1 and T2); bicycle and pedestrian infrastructure (Measures T3 and T4); construction of electric vehicle (EV) charging infrastructure (Measure T6); construction of new solar infrastructure (Measures ES3 and ES4); retrofitting existing building stock to reduce overall Countywide energy use (Measure E4); new organics waste collection and processing facilities, including anaerobic digestion (Actions W2.4 and W2.5); and tree planting at new development, LA County facilities, public parks, and along rights-of-way in both urbanized and rural areas (Measure A3).

Future projects facilitated by Draft 2045 CAP measures and actions would be required to comply with applicable federal, state, and local regulations that protect historical resources and to undergo LA County's discretionary review process, where applicable, including completion of subsequent project-level planning and environmental review under CEQA. Such projects nonetheless could result in significant impacts on previously recorded and as-yet-unidentified archaeological and/or historic architectural resources qualifying as historical resources under CEQA, and this impact would be significant.

Implementation of Mitigation Measures 3.6-1 through 3.6-6 would reduce impacts to a less-than-significant level.

Mitigation Measure 3.6-1: Historic Resources Assessment. Prior to demolition or alteration of buildings and/or structures or the construction of aboveground infrastructure with potentially significant impacts on historic architectural resources, the project proponent shall retain an architectural historian meeting the minimum professional qualifications standards (PQS) set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738–44739) (Qualified Architectural Historian) to conduct a historic resources assessment of affected properties. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a review of other pertinent archives and sources; a pedestrian field survey; recordation of all identified historic architectural resources on California Department of Parks and Recreation (DPR) 523 forms; evaluation of resources which may be eligible for listing in the California Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment for each future project facilitated by 2045 CAP measures and actions. If a historic architectural resource is found eligible by the Qualified Architectural Historian, then the Qualified Architectural Historian shall coordinate with the project proponent and LA County to ensure the project is constructed in conformance with the Secretary of the Interior's Standards. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to historic resources assessments and Secretary of the Interior's Standards plan reviews).

Mitigation Measure 3.6-2: Archaeological Resources Assessment. Prior to conducting construction activities that would involve ground disturbance, the project proponent shall retain an archaeologist meeting the minimum PQS set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738–44739) (Qualified Archaeologist) to conduct an archaeological resources assessment. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a Sacred Lands File search at the California Native American Heritage Commission (NAHC); geoarchaeological review including a focused assessment of land use history and any available geotechnical data to assess the potential for subsurface archaeological resources; a pedestrian field survey in instances where ground surface is exposed; recordation of all identified archaeological resources on DPR 523 forms; evaluation of resources affected by the project for eligibility for listing in the California Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment. Resources that do not qualify as historical resources shall be considered by the Qualified Archaeologist for qualification as unique archaeological resources as defined in Public Resources Code Section 21083.2(g). The technical report also shall provide recommendations as to whether additional studies are warranted to further identify or evaluate archaeological resources (i.e., Extended Phase I boundary delineation, Phase II testing and evaluation) and if archaeological monitoring and Native American monitoring of ground disturbing activities is warranted (e.g., in areas where there is a higher potential to encounter buried resources). Prior to the initiation of field work for any Extended Phase I or Phase II investigation, the Qualified Archaeologist shall prepare a work plan outlining the investigation’s objectives, goals, and methodology. When developing a work plan for Native American resources, LA County shall consult with local Native American tribes. If archaeological/Native American monitoring is warranted, the Qualified Archaeologist shall determine the locations and duration of monitoring and reporting requirements. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to archaeological resources assessments, Extended Phase I and Phase II reports, and monitoring reports).

Mitigation Measure 3.6-3: Construction Worker Cultural Resources Sensitivity Training. For projects with ground-disturbing activities that may encounter potentially significant archaeological resources, the Qualified Archaeologist shall implement a cultural resources sensitivity training program. The Qualified Archaeologist, or its designee, shall instruct all construction personnel of the types of archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, applicable laws protecting archaeological resources, and confidentiality of discoveries. Native American monitor(s) shall be invited to participate in presenting tribal perspectives as part of the training curriculum. In the event that construction crews are phased, additional trainings shall be conducted for new construction personnel. The project proponent or its contractors shall ensure construction personnel are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to LA County.

Mitigation Measure 3.6-4: Archaeological Resources Discoveries. In the event archaeological resources are encountered during construction of a project, the project proponent shall cease all activity within 50 feet of the find shall cease. The discovery shall be evaluated for significance by the Qualified Archaeologist. When assessing

significance and developing treatment for resources that are Native American in origin, LA County shall consult with local Native American tribes. If the Qualified Archaeologist determines that the resource is significant (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), the Qualified Archaeologist shall provide a method for avoidance and preservation in place, which shall be the preferred manner of mitigating impacts. If avoidance is infeasible, the Qualified Archaeologist shall develop a Phase III Archaeological Resources Data Recovery and Treatment Plan consistent with Mitigation Measure 3.6-5. The Qualified Archaeologist also shall determine, based on the initial assessment of the discovery, whether the 50-foot buffer may be reduced. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to Extended Phase I, Phase II, and Phase III reports).

Mitigation Measure 3.6-5: Treatment of Archaeological Resources. If the assessment conducted under Mitigation Measure 3.6-2 or Mitigation Measure 3.6-4 identifies significant archaeological resources (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), then avoidance and preservation in place shall be the preferred manner of mitigating impacts. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. If avoidance and preservation in place of significant archaeological resources is determined by LA County to be infeasible, then the Qualified Archaeologist shall prepare a Phase III Archaeological Resources Data Recovery and Treatment Plan. The plan shall include: a detailed research design; justification for data recovery or other treatment methods depending on the nature of the resource's eligibility; excavation methodology; and, reporting and curation requirements. When developing treatment for resources that are Native American in origin, LA County shall consult with local Native American tribes. All Phase III reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center.

Mitigation Measure 3.6-6: Curation and Disposition of Cultural Materials. The project proponent shall arrange curation for all Native American archaeological materials, with the exception of funerary objects or grave goods (i.e., artifacts associated with Native American human remains). For significant Native American archaeological materials, the project proponent shall first consider repositories that are accredited by the American Association of Museums and that meet the standards outlined in 36 CFR 79.9. If a suitable accredited repository is not identified, then the project proponent shall consider nonaccredited repositories as long as they meet the minimum standards set forth by 36 CFR 79.9. If a suitable nonaccredited repository is not identified, then the project proponent shall donate the collection to a local California Native American tribe(s). Non-significant archeological materials shall be donated to a local California Native American tribe(s). If neither an accredited or nonaccredited repository or tribe accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes. Disposition of Native American human remains and associated funerary objects or grave goods shall be determined by the landowner in consultation with LA County and the MLD.

The project proponent shall curate all significant historic-period archaeological material, or portions thereof at the discretion of the Qualified Archaeologist, at a repository

accredited by the American Association of Museums that meets the standards outlined in 36 CFR 79.9. If no accredited repository accepts the collection, then the project proponent may curate it at a nonaccredited repository as long as it meets the minimum standards set forth in 36 CFR 79.9. If neither an accredited nor a nonaccredited repository accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes.

Significance after Mitigation: The Draft 2045 CAP, due to projects facilitated by Draft 2045 CAP measures and actions, would result in a less-than-significant impact on historical resources after implementation of Mitigation Measures 3.6-1 through 3.6-6. The implementation of these measures would reduce significant impacts on historical resources resulting from projects facilitating Draft 2045 CAP measures and actions by avoiding or reducing the significant impact. Mitigation Measure 3.6-1 requires identification of historical resources of a built nature that could be affected by a project to avoid or reduce inadvertent significant impacts on such resources. The measure further requires that projects be designed to conform with the Secretary of the Interior's Standards to avoid or reduce significant impacts on such resources. Mitigation Measure 3.6-2 requires identification of significant archaeological resources (i.e., resources considered historical resources or unique archaeological resources) to avoid or reduce inadvertent significant impacts on such resources. The measure further requires that archaeological/Native American monitoring be considered to ensure that there is an opportunity to avoid or reduce inadvertent significant impacts on such resources. Mitigation Measure 3.6-3 requires that construction personnel involved in ground-disturbing activities be trained in the identification of cultural resources to assist in avoidance or minimizing of inadvertent potentially significant impacts on such resources. Mitigation Measures 3.6-4 and 3.6-5 require that significant archaeological resources be avoided and preserved in place if feasible. If avoidance and preservation in place is not feasible, then data recovery is required to recover the scientifically consequential information contained in the resource, which would avoid or reduce significant adverse impacts on the resource. Mitigation Measure 3.6-6 provides for final disposition of archaeological materials, such as curation or donation to a Native American group or other entity, to reduce significant impacts on such resources by preserving the materials for those with research or educational interests.

Criterion b) Whether the Project would cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5.

Impact 3.6-2: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5. (*Less than Significant with Mitigation Incorporated*)

As discussed, prehistoric and historic-period archaeological resources are known to exist across the County, including in its unincorporated areas where the Draft 2045 CAP would be implemented. Archaeological resources not qualifying as historical resources may still qualify as unique archaeological resources under CEQA. While approval of the Draft 2045 CAP itself would not cause a substantial adverse change in the significance of a unique archaeological resource, it is possible that projects facilitated by Draft 2045 CAP measures and actions would

involve ground-disturbing activities that, depending on their location, could result in direct or indirect adverse changes to the significance of unique archaeological resources. Examples of projects that could be facilitated by the Draft 2045 CAP include renewable energy projects (e.g., utility-scale solar PV energy generation projects, battery storage, substation, and transmission infrastructure) in the Antelope Valley and other types of projects that would entail ground disturbance. These projects would be required to comply with applicable federal, state, and local laws that protect unique archaeological resources and, where applicable, to undergo LA County's discretionary review process, including completion of subsequent project-level planning and environmental review under CEQA. Such projects nonetheless could result in significant impacts on unique archaeological resources under CEQA.

Implementation of Mitigation Measures 3.6-2 through 3.6-6 would reduce significant impacts on unique archaeological resources to a less-than-significant level.

Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6.

Significance after Mitigation: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in less-than-significant impacts on unique archaeological resources after the implementation of Mitigation Measures 3.6-2 through 3.6-6. The implementation of these measures would reduce significant impacts on unique archaeological resources by avoiding or reducing the significant impact. Mitigation Measure 3.6-2 requires identification of unique archaeological resources to avoid or reduce inadvertent significant impacts on such resources. The measure further requires that archaeological/Native American monitoring be considered to ensure that there is an opportunity to avoid or reduce inadvertent significant impacts on such resources. Mitigation Measure 3.6-3 requires that construction personnel involved in ground-disturbing activities be trained in the identification of cultural resources to assist in avoidance or minimizing of inadvertent significant impacts on such resources. Mitigation Measures 3.6-4 and 3.6-5 require that unique archaeological resources be avoided and preserved in place if feasible. If avoidance and preservation in place is not feasible, then data recovery is required to recover the scientifically consequential information contained in the resource, which would avoid or reduce significant adverse impacts on the resource. Mitigation Measure 3.6-6 provides for final disposition of archaeological materials, such as curation or donation to a Native American group or other entity, to reduce significant impacts on such resources by preserving the materials for those with research or educational interests.

Criterion c) Whether the Project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact 3.6-3: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*Less than Significant with Mitigation Incorporated*)

Geologic mapping indicates a majority of the deposits within the study area consist of Holocene, Pleistocene, Pliocene, and Miocene-age sedimentary deposits. Additionally, there are occurrences

of Cretaceous, Jurassic, and Triassic-age metamorphic and igneous rocks associated with the San Gabriel and Eastern Santa Monica mountains in the Project area (Yerkes and Campbell 2005). These deposits vary in sensitivity for the presence of paleontological resources. Future projects facilitated by Draft 2045 CAP measures and actions that would involve ground disturbing activities, depending on their location, could result in direct or indirect adverse changes to the significance of a unique paleontological resource or site or unique geologic feature. These projects would be required to comply with existing federal, state, and local regulations that protect paleontological resources and unique geologic features and undergo LA County's discretionary review process, where applicable, including completion of subsequent project-level planning and environmental review under CEQA. Such projects could nonetheless result in significant impacts to unique paleontological resources or sites or unique geologic features under CEQA. However, implementation of Mitigation Measures 3.6-7 through 3.6-9 would reduce impacts to a less-than-significant level.

Mitigation Measure 3.6-7: Paleontological Resources Assessment and Monitoring.

For projects facilitated by Draft 2045 CAP measures and actions that involve ground disturbance, the project proponent shall retain a paleontologist who meets the Society of Vertebrate Paleontology's (SVP 2010) definition for qualified professional paleontologist (Qualified Paleontologist) to prepare a paleontological resources assessment report prior to the start of construction activities. The report shall include methods and results of the paleontological resources assessment, monitoring requirements (including depths, frequency, and reporting), and maps that outline where monitoring is required. Monitoring shall follow SVP Guidelines: no monitoring of ground-disturbing activities within units of *Low Sensitivity* or *No Potential*; monitoring of all ground-disturbing activities (with depths specified) in units of *Low to High Significance*; and at all depths within units of *High Significance* unless the Qualified Paleontologist's report identifies previous disturbances or the use of construction methods which do not warrant monitoring; and monitoring at the initiation of excavation in units of *Undetermined Significance*. The report also shall stipulate whether screen washing is necessary to recover small specimens following SVP Guidelines and determine whether unique geologic features are present onsite. If monitoring is conducted, then the Qualified Paleontologist shall prepare a final report summarizing monitoring results and submit it to the project proponent and LA County.

Mitigation Measure 3.6-8: Paleontological Resources Sensitivity Training. Prior to the start of ground-disturbing activities for projects facilitated by Draft 2045 CAP measures and actions with potentially significant impacts on paleontological resources, the Qualified Paleontologist or its designee shall conduct construction worker paleontological resources sensitivity training (or may be provided via digital recording) for all construction workers. Construction workers shall be informed on how to identify the types of paleontological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources, and safety precautions to be taken when working with paleontological monitors. The project proponent shall ensure that construction workers are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to LA County.

Mitigation Measure 3.6-9: Paleontological Discoveries. If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the

discovery. An appropriate buffer area determined by the paleontological monitor shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the monitor's discretion, and to reduce any construction delay, the grading/excavation contractor shall assist, where feasible, in removing rock/sediment samples for initial processing and evaluation. If a fossil is determined to be significant, the Qualified Paleontologist shall implement a paleontological salvage program to remove the resources from their location, following the guidelines of the SVP (2010). Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at a public, nonprofit institution with a research interest in the material and with retrievable storage, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. Accompanying notes, maps, and photographs shall also be filed at the repository. If no institution accepts the fossil collection, it may be donated to a local school or other interested organization in the area for educational purposes.

If construction workers discover any potential fossils during construction while the paleontological monitor is not present, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and recommended and implemented appropriate treatment as described earlier in this measure.

Any salvage reports resulting from implementation of this measure shall be filed with the Natural History Museum of Los Angeles County.

Significance after Mitigation: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in less-than-significant impacts on unique paleontological resources and unique geologic features after implementation of Mitigation Measures 3.6-7 through 3.6-9. These measures would reduce significant impacts on unique paleontological resources by avoiding or reducing the significant impact. Mitigation Measure 3.6-7 requires, prior to any construction activities that involve ground disturbance, identification of unique paleontological resources and unique geologic features to avoid or reduce inadvertent potentially significant impacts on such resources. The measure further requires that paleontological monitoring be considered to ensure that there is an opportunity to avoid or reduce inadvertent potentially significant impacts on such resources. Mitigation Measure 3.6-8 requires that construction personnel involved in ground-disturbing activities be trained in the identification of paleontological resources to assist in avoidance or minimizing of inadvertent potentially significant impacts on such resources. Mitigation Measure 3.6-9 requires that unique paleontological resources are recovered and curated.

Criterion d) Whether the Project would disturb any human remains, including those interred outside of dedicated cemeteries.

Impact 3.6-4: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would disturb any human remains, including those interred outside of dedicated cemeteries. (*Less than Significant with Mitigation Incorporated*)

Human remains associated with the prehistoric and historic periods that are interred outside of a dedicated cemetery are known to occur Countywide, including the County's unincorporated areas.

Projects facilitated by Draft 2045 CAP measures and actions that involve ground disturbing activities, depending on their location, could result in disturbance of human remains. Examples of such projects include renewable energy projects (e.g., utility-scale solar PV energy generation projects, battery storage, substation, and transmission infrastructure) in the Antelope Valley. Ground-disturbing projects of all kinds would be required to comply with applicable federal, state, and local regulations that protect human remains and, where applicable, undergo LA County's discretionary review process, including completion of subsequent project-level planning and environmental review under CEQA. Such projects nonetheless could result in significant impacts on human remains under CEQA, including to human remains interred outside of dedicated cemeteries.

Implementation of Mitigation Measure 3.6-10 would reduce impacts to a less-than-significant level.

Mitigation Measure 3.6-10: Human Remains Discoveries. If human remains are encountered, then the project proponent or its contractor shall immediately halt work within 50 feet of the discovery and contact the LA County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5, which require that no further disturbance shall occur until the LA County Coroner has made the necessary findings as to the remains' origin and disposition. If the LA County Coroner determines that the remains are Native American, then the LA County Coroner will notify the NAHC within 24 hours in accordance with Health and Safety Code Section 7050.5(c), and Public Resources Code Section 5097.98. The NAHC shall then identify the person(s) thought to be the MLD. The MLD may, with the permission of the land owner, or their authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. The project proponent, LA County, and the landowner shall discuss and confer with the MLD on all reasonable options regarding the MLD's preferences for treatment.

Until the project proponent, the County, and the landowner have conferred with the MLD, the contractor shall ensure that the immediate vicinity where the discovery occurred is not disturbed by further activity and is adequately protected according to generally accepted cultural or archaeological standards or practices (e.g., the NAHC's *A Professional Guide for the Preservation and Protection of Native American Human Remains and Associated Grave Goods* [NAHC 2022], which reiterates statutory requirements), and that further activities take into account the possibility of multiple burials.

If the NAHC is unable to identify an MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Public Resources Code Section 5097.94(k), if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

Significance after Mitigation: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in less-than-significant impacts on human remains after implementation of Mitigation Measure 3.3-10. This measure would reduce significant impacts on human remains by immediately halting construction activities in the event of a possible discovery to avoid or reduce significant impacts. Mitigation Measure 3.6-10 requires the project proponent and LA County to follow Health and Safety Code Section 7050.5(c) and Public Resources Code Section 5097.98 in the event Native American human remains are encountered, which includes halting work, notifying the LA County Coroner, and consulting with the MLD. Further, the measure requires the project proponent, LA County, and the landowner to work with the MLD for treatment of the remains to avoid or reduce significant impacts, or the landowner to reinter the remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance if an agreement cannot be reached to avoid or reduce significant impacts.

3.6.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts on cultural resources, the geographic area of consideration (i.e., the cumulative impacts study area) consists of Los Angeles County. This geographic scope of analysis is appropriate for the analysis of cultural resources because the historical resources, unique archaeological resources, and human remains within this area are similar in nature and origin, and share a common heritage. For paleontological resources and unique geologic features, the geographic scope of analysis is appropriate because the geology, formations, and sediments within this area are expected to be similar. Cumulative impacts could result at various locations within this area from the initiation of on-the-ground work in furtherance of a project facilitated by the Draft 2045 CAP measures and actions and until ground-disturbing activities cease.

Criterion a)

Impact 3.6-5: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on historical resources. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The County has a rich prehistoric and historic archaeological record as well as numerous historic-period buildings and structures. Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015; Los Angeles County 2021), have affected and can be expected to continue to affect the significance of archaeological and historic architectural resources qualifying as historical resources, which may include the resources identified in Tables 3.6-1 through 3.6-4, by adversely altering and/or demolishing such resources. Because all historical resources are unique and nonrenewable members of finite classes, projects that demolish or alter them could cause or contribute to a significant cumulative impact on historical resources.

The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant)

by the implementation of Mitigation Measures 3.6-1 through 3.6-6. With the implementation of these measures, the Project-specific, incremental contribution, considered with the cumulative projects' impacts on historical resources over the span of the Draft 2045 CAP, would not be cumulatively considerable because they would specify that, before construction of aboveground infrastructure that might affect known historic architectural resources, an architectural historian must identify historical resources, provide recommendations, require archaeological monitoring, and prepare a plan for the treatment of historical resources. With the implementation of Mitigation Measures 3.6-1 through 3.6-6, a less-than-significant cumulative impact on historic resources would result.

Mitigation: Implement Mitigation Measures 3.6-1 through 3.6-6.

Significance after Mitigation: Less than Significant.

Criterion b)

Impact 3.6-6: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact to unique archaeological resources. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The County has a rich prehistoric and historic archaeological record. Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015; Los Angeles County 2021), have affected and can be expected to continue to affect the significance of unique archaeological resources in the unincorporated areas, including as a result of disturbance to unanticipated discoveries of such resources during ground-disturbing activities. Because such resources are, by definition, one of a kind, projects that adversely affect unique archaeological resources could cause or contribute to a significant cumulative impact.

The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.6-2 through 3.6-6. With the implementation of these measures, the Project-specific, incremental contribution, considered with the cumulative projects' impacts on unique archaeological resources over the span of the Draft 2045 CAP, would not be cumulatively considerable because they would require identification and treatment of unique archaeological resources, and would thereby avoid or reduce significant impacts. With the implementation of these mitigation measures, a less-than-significant cumulative impact to unique archaeological resources would result.

Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6.

Significance after Mitigation: Less than Significant.

Criterion c)

Impact 3.6-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact to unique paleontological resources or sites or unique geologic features. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The County has a rich paleontological resources record. Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015; Los Angeles County 2021), have affected and can be expected to continue to affect the significance of unique paleontological resources or sites or unique geologic features in the unincorporated areas, including as a result of disturbance to unanticipated discoveries of such resources during ground-disturbing activities at fossil-bearing depths.

The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.6-7 through 3.7-9. With the implementation of these measures, the Project-specific, incremental contribution, considered with the cumulative projects' impacts on unique paleontological resources or sites or unique geologic features over the span of the Draft 2045 CAP, would not be cumulatively considerable because they would require identification and treatment of unique paleontological resources or sites or unique geologic features and would thereby avoid or reduce significant impacts. With the implementation of these mitigation measures, a less-than-significant cumulative impact on unique paleontological resources or sites or unique geologic features would result.

Mitigation: Implement Mitigation Measures 3.6-7 through 3.6-9.

Significance after Mitigation: Less than Significant.

Criterion d)

Impact 3.6-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact to human remains, including those interred outside of dedicated cemeteries. (*Less than Significant Cumulative Impact with Mitigation Incorporated*)

There are 81 cemeteries in the County, including several in the unincorporated areas (Find a Grave 2022), and a high likelihood that human remains also are interred outside of dedicated cemeteries. There is no evidence of an existing significant cumulative impact from disturbance of human remains interred within dedicated cemeteries, and the Draft 2045 CAP would not cause or contribute to one. However, given the County's long history, the combined incremental impacts of past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015; Los Angeles County 2021), have discovered human remains interred outside of dedicated cemeteries. For example, workers building a subway extension in 2005

unearthed the skeletal remains of 108 people just outside the Evergreen Cemetery in Boyle Heights in the city of Los Angeles (Lawrence Journal World 2006). Cumulative finds of human remains interred outside of dedicated cemeteries have resulted in a significant cumulative impact.

The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measure 3.6-10. With the implementation of this measure, the Project-specific, incremental contribution, considered with the cumulative projects' impacts on human remains interred outside formal cemeteries over the span of the Draft 2045 CAP, would not be cumulatively considerable because the measure would require the project proponent and LA County to follow the law governing such finds, including by halting work, notifying the LA County Coroner, and consulting with the MLD or taking other specified, appropriate actions to assure treatment of the remains with appropriate dignity. If human remains of Native American origin are discovered during work associated with a project facilitated by the Draft 2045 CAP, then the project proponent and/or LA County would be required to comply with state laws related to the disposition of Native American burials (e.g., Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98). With the implementation of this mitigation measure, a less-than-significant cumulative impact would result.

Mitigation: Implement Mitigation Measure 3.6-10.

Significance after Mitigation: Less than Significant.

3.7 Energy

This section identifies and evaluates issues related to energy to determine whether the Project would result in a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources or a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various substantive issues and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period.

3.7.1 Setting

3.7.1.1 Study Area

The study area for this analysis of impacts on energy consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated areas of the County. See Figure 2-1, *Map of Unincorporated Los Angeles County*. Electric utility service in the unincorporated areas of the County is supplied by the Clean Power Alliance, which is a public agency and the default electricity provider for the unincorporated areas of Los Angeles. The Clean Power Alliance was established in 2018 as a joint powers authority with unincorporated Los Angeles County, Rolling Hills Estates, and South Pasadena as founding members (Clean Power Alliance 2022a). Southern California Edison also provides electric utility service for the unincorporated areas of the County (CEC 2020a). Natural gas service in the unincorporated areas of the County is supplied by Southern California Gas Company (SoCal Gas) with the exception of Southern California Edison for Santa Catalina Island (CEC 2020b).

3.7.1.2 Environmental Setting

Energy Supply

Electricity

Electricity produced within California in 2020 was from natural gas (37 percent), renewable resources (33 percent),¹ large hydroelectric (12 percent), nuclear (9 percent), coal (3 percent), and unspecified sources (5 percent).² In 2020, the total electrical system power generated was 272,576 gigawatt-hours (GWh), which is down approximately two percent from 2019's total system electric

¹ Renewable energy includes biomass, geothermal plants, small hydroelectric (under 30 MW), solar, and wind.

² Unspecified power refers to electricity that is not traceable to a specific generating facility, such as electricity traded through open market transactions. Unspecified sources of power are typically a mix of resource types and may include renewables. This category can also include spot market purchases, wholesale energy purchases, and purchases from pools of electricity where the original source of fuel can no longer be determined (CEC 2022g).

generation. Overall, California's total grid-served electric generation continues to decline as local, distributed generation systems expands across the state. In 2020, California experienced the third driest year since year since 1895, as drought conditions returned to the state. Similarly, 2020 had the third highest annual average temperature recorded over the past 126-year record. As a result, annual hydroelectric generation fell by 44 percent from 2019 levels to 21,414 GWh. California uses energy generated in-state and imports electricity from the Southwest or Pacific Northwest of the United States. In 2020, approximately 191,000 GWh of electricity was generated in-state, while approximately 82,000 GWh of electricity was imported from out of state (CEC 2022a). In 2020, 65,650 GWh of electricity were consumed in Los Angeles County, which is equal to approximately 27 percent of the total electricity consumption in the state (CEC 2022b).

Clean Power Alliance offers three clean, renewable power choices to communities across Los Angeles County. Since Clean Power Alliance's inception in 2018, its 100 percent Green Power product, which includes 100 percent eligible renewable power, has been Green-e® certified.³ Beginning January 1, 2021, Clean Power Alliance offers commercial and industrial customers the option to opt in to a 100 percent Green Power product that is Green-e® Energy certified (Clean Power Alliance 2022b). In October 2022, Clean Power Alliance will have 18 member agencies receiving completely renewable power when Clean Power Alliance customers, including in unincorporated areas of the County, default to 100 percent Green Power (Clean Power Alliance 2022c).

Natural Gas

In 2020, the total natural gas usage across California was 12,331.53 million therms. Within Los Angeles County, total natural gas usage in 2020 was approximately 2,937 million therms, which equates to approximately 24 percent of the state's total natural gas usage for the year (CEC 2022c). Natural gas continues to play an important and varied role in California. Nearly 45 percent of the natural gas burned in California was used for electricity generation, and much of the remainder consumed in the residential (21 percent), industrial (25 percent), and commercial (9 percent) sectors (CEC 2022d).

California continues to depend upon out-of-state imports for nearly 90 percent of its natural gas supply. Natural gas has become an increasingly important source of energy since most of the state's fossil-fuel power plants rely on this fuel (CEC 2022d). However, in Southern California, natural gas production has steadily declined. In 2016, Governor Edmund G. Brown Jr., declared a state of emergency in Porter Ranch due to a natural gas leak that sickened people and forced the relocation of approximately 7,000 homes and several schools. In 2018, it was announced that NRG Energy would close three natural gas plants in Southern California, including: Etiwanda in Rancho Cucamonga, Ormond Beach in Oxnard, and Ellwood in Goleta (SCAG 2019).

More than 101,000 miles of transmission and distribution pipes and four natural gas storage facilities make up the natural gas infrastructure needed to provide natural gas throughout the SoCal Gas service territory (SoCal Gas 2022a). ASPIRE 2045 is SoCal Gas's strategy to further

³ Green-e® Energy is a consumer protection program designed to provide purchasers of renewable energy good product information, assurance of product quality, and verification of product ownership.

integrate sustainability across its business. This strategy builds upon SoCal Gas's climate commitment to achieve net zero greenhouse gas (GHG) emissions in its operations and delivery of energy by 2045 (SoCal Gas 2022b).

Petroleum-Based Fuel

Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles (CEC 2022e). In 2020, 12.6 billion gallons of gasoline were sold statewide, and 2.8 billion gallons (22 percent of statewide sales) were sold in Los Angeles County (CEC 2022f). In 2020, 1.7 billion gallons of diesel were sold statewide, and approximately 0.6 billion gallons (17 percent of statewide sales) were sold in Los Angeles County (CEC 2022f). In 2015, California reported a total of 29,830,797 registered on-road vehicles, including light-duty cars (54 percent), light-duty trucks (43 percent), and medium- and heavy-duty trucks (3.3 percent) (CEC 2022e).

Energy and Water

Water and energy are dependent on one another as water is essential in the production of electricity and electricity is required to pump, treat, and heat water. California's water system is energy intensive and may account for up to 10 percent of the state's GHG emissions. According to the most recent estimates, approximately 20 percent of statewide electricity and 30 percent of natural gas for business and home use go to pumping, treating, and heating water. Water is also required to produce energy, including in hydropower generation, thermoelectric power plants, and oil and gas extraction (PPIC 2018).

3.7.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Executive Order 13990

Executive Order (EO) 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, directs the heads of all federal agencies to review immediately all agency actions adopted during the former administration that conflict with the current administration's public health, climate, and environmental policy objectives and to take action as appropriate and consistent with applicable law. This executive order further directs the heads of relevant agencies to consider new rules that would suspend, revise, or rescind specific regulations enacted or proposed during the former administration regarding vehicle fuel economy standards and appliance and building efficiency standards, among others, to ensure that such standards reduce pollution. EO 13990 repeals many energy-related executive orders from the former administration that sought to advance fossil fuel resource development on federal lands, including EO 13783.

Energy Policy and Conservation Act of 1975

The Energy Policy and Conservation Act of 1975 (Public Law 94-163, 89 Stat. 871) was enacted for the purpose of serving the Nation's energy demands and promoting conservation methods when feasibly obtainable. The act was recently amended to (US Legal 2022):

- Grant specific authority to the president to fulfill obligations of the U.S. under the international energy program.
- Provide for the creation of a Strategic Petroleum Reserve capable of reducing the impact of severe energy supply interruptions.
- Conserve energy supplies through energy conservation programs, and the regulation of certain energy uses.
- Provide for improved energy efficiency of motor vehicles, major appliances, and certain other consumer products.
- Provide a means for verification of energy data to assure the reliability of energy data.
- Conserve water by improving the water efficiency of certain plumbing products and appliances.

National Energy Act of 1978

In response to the energy crisis in the 1970s, Congress passed the National Energy Act of 1978 to establish energy efficiency programs, tax incentives, tax disincentives, energy conservation programs, alternative fuel programs, and regulatory and market-based initiatives (GPO 1978). It includes five statutes:

- Public Utility Regulatory Policies Act (Public Law 95–617)
- Energy Tax Act (Public Law 95–618)
- National Energy Conservation Policy Act (Public Law 95–619)
- Power Plant and Industrial Fuel Use Act (Public Law 95–620)
- Natural Gas Policy Act (Public Law 95–621)

Energy Policy Act of 1992

The Energy Policy Act (Public Law 102-486) set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. It established regulations requiring certain federal, state, and alternative fuel provider fleets to build an inventory of alternative fuel vehicles. It was amended several times in the Energy Conservation and Reauthorization Act of 1998 and in 2005 via the Energy Policy Act in 2005, which emphasized alternative fuel use and infrastructure development (DOE 2022a).

Energy Policy Act of 2005

On August 8, 2005, President George W. Bush signed the National Energy Policy Act of 2005 (Public Law 109-58) into law. This comprehensive energy legislation contains several electricity-related provisions that aim to:

- Help ensure that consumers receive electricity over a dependable, modern infrastructure.
- Remove outdated obstacles to investment in electricity transmission lines.
- Make electric reliability standards mandatory instead of optional.
- Give federal officials the authority to site new power lines in DOE-designated national corridors in certain limited circumstances.

The Renewable Fuel Standard (RFS) program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. The program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders. As required by the Energy Policy Act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012 (GPO 2005).

Energy Independence and Security Act of 2007

The Energy Independence and Security Act (EISA; Public Law 110-140) was signed into law by President George W. Bush on December 19, 2007. The Act's goal is to achieve energy security in the United States by increasing renewable fuel production, improving energy efficiency and performance, protecting consumers, improving vehicle fuel economy, and promoting research on GHG capture and storage. Under the EISA, the RFS program (RFS2) was expanded in several key ways:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required U.S. Environmental Protection Agency to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

RFS2 lays the foundation for achieving significant reductions of GHG emissions from the use of renewable fuels, for reducing imported petroleum, and encouraging the development and expansion of our nation's renewable fuels sector.

The EISA also includes a variety of new standards for lighting and for residential and commercial appliance equipment. The equipment includes residential refrigerators, freezers, refrigerator-freezers, metal halide lamps, and commercial walk-in coolers and freezers (GPO 2007).

Fuel Economy Standards

On September 15, 2009, the National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA) announced a proposed joint rule that would explicitly tie fuel economy to GHG emissions reductions requirements. In April 2020, USEPA and NHTSA amended the Corporate Average Fuel Economy (CAFE) and GHG emissions standards for passenger cars and light trucks and established new less stringent standards, covering model years 2021 through 2026 (Part Two of the Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). The CAFE and carbon dioxide (CO₂) emissions standards increase in stringency at 1.5 percent per year from model year 2020 levels over model years 2021 through 2026. California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020. On April 22, 2021, NHTSA proposed to formally roll back portions of the SAFE Vehicles Rule, thereby restoring California's right to set more stringent fuel efficiency standards. NHTSA is also planning to issue a new rule to increase the national fuel

economy standard for light-duty vehicles beyond those in Part Two of the SAFE Vehicles Rule (NHTSA 2021). Moreover, on August 5, 2021, President Joe Biden signed an executive order that targets making half of all new vehicles sold in 2030 zero-emissions vehicles, including battery electric, plug-in hybrid electric, or fuel cell electric vehicles (White House Briefing Room 2021). More recently proposed federal motor vehicle tailpipe emissions standards include:

- *Revocation of the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule:* On March 14, 2022, the USEPA published its Notice of Decision to restore California’s waiver, which allows California to set more stringent vehicle fuel efficiency standards, rescinding the SAFE Vehicles Rule (*Federal Register* Volume 87, page 14332).
- *Issuance of the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards:* The issuance of these standards revises the GHG standards for vehicles from model year 2023 through model year 2026 and establishes the most stringent GHG standards ever set for the light-duty vehicle sector, which are expected to result in average fuel economy label values of 40 miles per gallon, while the standards they replace (the SAFE rule standards) would achieve only 32 miles per gallon in model year 2026 vehicles (USEPA 2021c).

State Laws, Regulations, and Policies

California Integrated Energy Policy

In 2002, the Legislature passed Senate Bill (SB) 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

The CEC has adopted the 2021 Integrated Energy Policy Report, which assesses major energy trends and issues facing the state’s electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources, protect the environment, ensure reliable, secure, and diverse energy supplies, enhance the state’s economy, and protect public health and safety. The 2021 Integrated Energy Policy Report covers a broad range of topics, including building decarbonization, ensuring reliability in a changing climate, decarbonizing the state’s gas system, and the California energy demand forecast (CEC 2022g).

Renewables Portfolio Standard

First established in 2002 under SB 1078, California’s Renewables Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 50 percent by 2030. SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. The objectives of SB 350 are: (1) to increase the procurement of electricity from renewable sources from 33 percent to 50 percent; and (2) to double the energy savings in electricity and natural gas final end uses of retail customers through

energy efficiency and conservation. On September 10, 2018, Governor Edmund G. Brown Jr., signed SB 100, which further increased California’s RPS and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, and that the California Air Resources Board (CARB) should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC’s responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility’s renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.

Title 24 Building Energy Efficiency Standards

Title 24, Part 6, of the California Code of Regulations is the California Building Code governing all aspects of building construction. Part 6 of the Building Code includes standards mandating energy efficiency measures in new construction. Since its establishment in 1977, the building efficiency standards (along with standards for energy efficiency in appliances) have contributed to a reduction in electricity and natural gas usage and costs in California. The standards are updated every three (3) years to incorporate new energy efficiency technologies. The 2019 update to the Title 24 standards became effective January 1, 2020. The 2022 update to the Title 24 standards will take effect January 1, 2023. The standards regulate energy consumed in buildings for heating, cooling, ventilation, water heating, and lighting. Title 24 is implemented through the local planning and permits processes (CEC 2018).

Regional Transportation Plan/Sustainable Communities Strategy

SB 375 requires each Metropolitan Planning Organization to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks. For the Southern California Association of Governments (SCAG) region, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) adopted on September 3, 2020, is the current RTP/SCS and is an update to the prior 2016-2040 RTP/SCS (SCAG 2020).

The 2020-2045 RTP/SCS focuses on the continued efforts of the previous RTP/SCS plans for an integrated approach in transportation and land use strategies in development of the SCAG region through horizon year 2045. The 2020-2045 RTP/SCS includes “Core Vision,” which centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by location housing, jobs, and transit closer together, and increasing investments in transit and complete streets.

Fuel Efficiency

CARB is responsible for the coordination and administration of both federal and state air pollution control programs in California. Some of the regulations and measures that CARB has

adopted to reduce particulate matter, nitrogen oxides, and other emissions have the co-benefits of reducing GHG emissions and increasing fuel efficiencies. Refer to the *Transportation Sector* discussion in Section 3.9, *Greenhouse Gas Emissions*, Subsection 3.9.1.3, *Regulatory Setting*, for the associated CARB regulations and measures.

Construction Equipment Idling

CARB has also adopted a regulation for in-use off-road diesel vehicles that is designed to reduce emissions from diesel-powered construction vehicles by imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The regulation requires an operator of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to no more than 5 minutes.

Regional and Local Laws, Regulations, and Policies

Clean Cities Program

The U.S. Department of Energy’s Clean Cities Program promotes voluntary, locally based government/industry partnerships for the purpose of expanding the use of alternatives to gasoline and diesel fuel by accelerating the deployment of alternative fuel vehicles (AFVs) and building a local AFV refueling infrastructure. The mission of the Clean Cities Program is to advance the nation’s economic, environmental, and energy security by supporting local decisions to adopt practices that contribute to the reduction of petroleum consumption. The Clean Cities Program carries out this mission through a network of more than 80 volunteer coalitions, which develop public/private partnerships to promote alternative fuels and vehicles, fuel blends, fuel economy, hybrid vehicles, and idle reduction (DOE 2022b).

The Southern California/SCAG Clean Cities Coalition was first designated by the U.S. Department of Energy on March 1, 1996. SCAG directly administers the SCAG Clean Cities Program. This coalition supports government and industry partnerships to expand alternative fuel vehicles and infrastructure throughout the SCAG region.

OurCounty: Los Angeles Countywide Sustainability Plan

The Los Angeles Countywide Sustainability Plan, also named OurCounty, is a regional sustainability plan for Los Angeles County (Los Angeles County 2019). The following OurCounty goals may apply to the Draft 2045 CAP:

Goal 1: Resilient and healthy community environments where residents thrive in place

Goal 2: Buildings and infrastructure that support human health and resilience

Goal 3: Equitable and sustainable land use and development without displacement

Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy

Goal 7: A fossil fuel-free LA County

Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency

Goal 9: Sustainable production and consumption of resources

Goal 11: Inclusive, transparent, and accountable governance that facilitates participation in sustainability efforts, especially by disempowered communities

3.7.2 Impact Analysis

3.7.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact on energy if it would:

- a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation; or
- b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.7.2.2 Methodology

This analysis evaluates the considerations identified in CEQA Guidelines Appendix G and identified by the LA County, which are set forth above in Section 3.7.2.1, *Significance Criteria*, to determine whether the Draft 2045 CAP, including future projects facilitated by Draft 2045 CAP measures and actions, would result in the inefficient, wasteful, or unnecessary use of energy result and thereby result in significant impacts to energy. Impacts related to energy are analyzed qualitatively. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.7.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures and various implementing actions to reduce GHG emissions in unincorporated areas of Los Angeles County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed GHG reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics because the locations and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, the impacts of implementing specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities, are evaluated qualitatively at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP*.)

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than the project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of energy-related impacts. These and other relevant measures and actions include: (1) Measure ES1 and associated Action ES1.1 (because it would result in collaboration to develop a sunset strategy for all oil and gas operations); (2) Measure ES2 and associated Action ES2.1 (because it would result in a transition of County facilities within unincorporated areas to CPA’s 100% Green Power option, SCE’s 100% Green Rate option, or other available 100% renewable electricity service) and Action ES2.2 (which would complete enrollment of the community in CPA’s 100% Green Power option or SCE’s Green Rate option); (3) Measure ES3 and associated Actions ES3.1, ES3.2, and ES3.3 (which would result in rooftop solar photovoltaic); (4) Measure ES4 and associated Actions ES4.2 and ES4.4 (which would result in additional energy storage and microgrids at critical LA County facilities, and would result in limitation of peak energy demand); (5) Measure T6 and associated Actions T6.2, T6.3, T6.4, T6.5, and T6.7 (which would result in the installation of electric vehicle charging stations, pilot vehicle-grid integration applications at workplaces, and increase the use of green hydrogen vehicles); (6) Measure T7 and associated Actions T7.1 and T7.2 (which would electrify the LA County bus fleet, inmate transfer fleet, shuttles, and light-duty fleet vehicles); (7) Measure T8 and associated Actions T8.2, T8.3, T8.4 (which would result in the installation of zero emission vehicle (ZEV) charging and alternative fueling infrastructure for medium- and heavy-duty vehicles); (8) Measure E1 and associated Actions E1.1, E1.2, E1.3, E1.4 (which would result in the electrification of existing buildings and achieve zero net energy for certain buildings); (9) Measure E2 and associated Actions E2.1 and E2.2 (which would require all-electric and zero net energy new buildings); (10) Measure E3 and associated Action E3.1 (which would increase levels of biomethane in the natural gas mix); and (11) Measure E4 and associated Actions E4.1 and E4.3 (which would increase the energy efficiency of existing buildings and convert existing LA County–owned heat-trapping surfaces to cool or green surfaces). Specific energy-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation.

Impact 3.7-1: The Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. (No Impact)

The Draft 2045 CAP provides an approach to reducing GHG emissions and facilitates associated benefits of reducing energy demand from community activities, including future development under the General Plan. The Draft 2045 CAP’s proposed Strategies, Measures, and Actions include both increases in renewable energy production and improvement of energy efficiency.

The Draft 2045 CAP would be a policy document containing GHG emissions reduction measures and implementation actions to reduce GHG emissions. It does not propose any specific development or other physical changes to the environment and would not facilitate growth beyond what the General Plan would allow. To promote energy conservation, LA County has adopted an amended California Green Building Standards Code per Title 31 (Green Building Standards) of the Los Angeles County Code. Therefore, any construction associated with projects implementing Draft 2045 CAP measures and actions would be required to be designed to comply with the performance levels of the California Green Building Standards Code, as amended in Title 31. Likewise, all such projects would be required to comply with the energy standards in the California Energy Code, Part 6 of the California Building Code (Title 24), and the green building standards in Part 11 of Title 24.

Furthermore, the purpose and intended effect of the Draft 2045 CAP is to reduce GHG emissions generated in unincorporated areas of the County to help reduce the impacts of climate change, including those emissions generated by energy demand and supply. The Draft 2045 CAP includes strategies, with corresponding implementation measures and actions, that would reduce energy use in buildings and decarbonizing the energy that is used, reduce indoor and outdoor water consumption through ordinances, tiered billing structures, education and outreach and/or promotion of conservation programs, and increasing the supply of energy to communities with zero-carbon or low-carbon electricity through a number of means that may include large utility-scale solar power generation in Antelope Valley, distributed or decentralized power generation, energy storage and microgrids, strategic partnerships with the Clean Power Alliance of Southern California and other actions. Specifically, the Draft 2045 CAP aims to reduce electricity use through requiring zero net energy buildings (Measure E1 and E2), increasing the efficiency of existing buildings (Measure E4), increasing the use of recycled water which would reduce electricity associated with water conveyance and distribution (Measure E5), and reducing indoor and outdoor water use (Measure E6). Further the Draft 2045 CAP would promote adoption of renewable energy production in both new and existing residential and commercial development (Measure ES3), which would decrease grid energy demand and advance LA County toward its electrification and zero net energy targets (Measures ES2, E1, and E2), all of which would support the state's energy efficiency and renewable energy goals.

The Draft 2045 CAP would also include strategies, with corresponding implementation measures and actions, that would reduce vehicle miles traveled, emissions, and transportation fuel consumption. The CAP includes transportation strategies, measures and actions that would reduce fuel consumption such as: locating development within High Quality Transit Areas; emphasizing non-motorized travel through LA County's Pedestrian Action Plan, Bicycle Master Plan, Active Transportation Plans, and Vision Zero Action Plan; expanding the electric vehicle charging infrastructure; and partnering with transit agencies to electrify LA County bus and shuttle fleets. For example, the Draft 2045 CAP aims to electrify 100 percent of the LA County bus fleet by 2030 (Measure T7), in line with Metro's goal of electrification for its fleet. This would reduce diesel, gasoline, and natural gas consumption from buses and would have the co-benefit of reducing air pollutant and GHG emissions. Similarly, the Draft 2045 CAP aims to transition passenger and heavy-duty vehicles to ZEVs in line with the State's Mobile Source Strategy (Measure T6 and T8), which would reduce diesel, gasoline, and natural gas consumption of on-

road vehicles in support of State goals. The Draft 2045 CAP's waste measures (Measure W1 and W2) would also result in greater waste diversion from landfills and decreased waste generation per capita resulting in less fuel consumption from haul trucks to landfills and would generate energy through waste-to-energy conversion systems.

For these reasons, and because the CAP measures and actions include specific features promoting renewable energy use, the Draft 2045 CAP would result in no impact regarding wasteful, inefficient, or unnecessary consumption of energy resources.

Mitigation Measure: None required.

Criterion b) Whether the Project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Impact 3.7-2: The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (No Impact)

For the reasons explained in the context of criterion a), the implementation of Draft 2045 CAP measures and actions would not cause an impact relating to a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency, such as the RPS, California Integrated Energy Policy Plan, Title 24 Building Energy Efficiency Standards, RTP/SCS, and the OurCounty Los Angeles Countywide Sustainability Plan.

Mitigation: None required.

3.7.2.4 Cumulative Impacts

For the purposes of this analysis of energy impacts, the geographic area considered for the cumulative impacts analysis comprises the County and a 40-mile travel radius for fuels. Impacts could result at various locations within this area from the initiation of on-the-ground work of a project facilitated by Draft 2045 CAP measures and actions and could last until such projects are decommissioned and the sites restored. Nonetheless, because the Project would not cause an incremental adverse energy impact, it would not contribute to a significant cumulative energy impact.

Mitigation: None required.

3.8 Geology and Soils

This section identifies and evaluates issues related to geology and soils to determine whether the Project would result in a significant impact related to a risk of loss, injury, or death involving rupture of a known earthquake fault, seismicity, or landslides; or related to erosion or unstable soils. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to geology and soils request consideration of impacts resulting from future renewable energy projects facilitated by the Draft 2045 CAP. These comments include suggestions that such development would cause erosion from vegetation removal in the Antelope Valley, where soil stability is highly variable and where regulatory agencies (Antelope Valley Air Quality Management District and Antelope Valley Resource Conservation District) have been challenged to control windblown dust from existing solar farms.

3.8.1 Setting

3.8.1.1 Study Area

The study area for this analysis of impacts related to geology and soils consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of Los Angeles County. See Figure 2 1, *Map of Unincorporated Los Angeles County*.

3.8.1.2 Environmental Setting

Topography

More than 50 percent of the unincorporated areas of the County are located in hilly or mountainous terrain. LA County designates areas with slopes that are 25 percent or steeper as Hillside Management Areas (HMAs) (Los Angeles County 2015a). Within unincorporated areas, most of the HMAs are adjacent to Angeles National Forest, near the coast in the Santa Monica Mountains and Palos Verdes Hills, and within the Santa Susana Mountains, Verdugo Mountains, and Puente Hills, which are three small ranges centrally located in the Los Angeles Basin. Elevations in Los Angeles County range from near sea level in the coastal areas to over 10,000 feet above mean sea level in Angeles National Forest (Los Angeles County 2015b).

Geomorphic Provinces

Los Angeles County primarily encompasses three geomorphic provinces: the Mojave Desert, the Transverse Ranges, and the Peninsular Ranges. A small portion of the Southern Coastal Ranges overlaps with the northwestern tip of Los Angeles County. Although each of these provinces

extends beyond County borders, each province encompasses a distinct area of Los Angeles County. The characteristics and general locations of the Mojave Desert, Transverse Ranges, and Peninsular Ranges geomorphic provinces are described below.

Mojave Desert

The Mojave Desert geomorphic province is approximately 25,000 square miles and encompasses the northern third of Los Angeles County, nearly all of San Bernardino County, and portions of Kern, Riverside, and Imperial Counties. The portion of the Mojave Desert that is in Los Angeles County is generally synonymous with the Antelope Valley.

The Mojave Desert is characterized by isolated mountain ranges separated by expanses of desert plains. It includes several prominent fault lines, ephemeral lakebeds, and small hills that are remnants of ancient mountain topography. The highest elevations in the Mojave Desert approach 4,000 feet above mean sea level, and the majority of the valleys lie between 2,000 feet and 4,000 feet above mean sea level.

The Mojave Desert is located between the Garlock Fault to the north, which forms the southern boundary of the Sierra Nevada, and the San Andreas Fault to the west. The Garlock Fault line is located within Kern County, while the San Andreas Fault traverses the County (Los Angeles County 2015b; CGS 2002).

Transverse Ranges

A substantial portion of Los Angeles County lies within this geomorphic province. The County's land areas that generally fall within this province include the following: the portions of the Antelope Valley Planning Area that are in and adjacent to the Angeles National Forest; the majority of the Santa Clarita Valley Planning Area; the Santa Monica Mountains Planning Area; the San Fernando Valley Planning Area; and the northern sections of the Westside, Metro, West San Gabriel Valley, and East San Gabriel Valley Planning Areas.

The Transverse Ranges are an east-west-trending string of mountain ranges that extend approximately 320 miles from Point Arguello in Santa Barbara County to the Little San Bernardino Mountains in Riverside County. This geomorphic province is generally bounded by the Coast Ranges province to the north, the Mojave Desert province to the east, the Pacific Ocean to the west, and the Peninsular Ranges province to the south. The San Gabriel Mountains and the Sierra Pelona, both of which lie within Los Angeles County, are part of the Transverse Ranges.

The Transverse Ranges support the highest peaks in California south of the central Sierra Nevada and are one of the most rapidly rising regions on earth. Intense north-south compression results in the prominent basins and peaks found within this geomorphic province, and several active fault lines, including the San Andreas Fault, are located within this province. The Transverse Ranges also support the only Paleozoic rocks found within coastal mountains in the United States. This province is considered one of the most geologically diverse areas in California (Los Angeles County 2015b; CGS 2002).

Peninsular Ranges

The Peninsular Ranges occupy approximately the southeastern third of Los Angeles County. This geomorphic province consists of a series of mountain ranges separated by northwest-trending valleys running subparallel to faults branching from the San Andreas Fault. The Peninsular Ranges geomorphic province is bounded to the north by the Transverse Ranges, to the west by the Pacific Ocean, and to the east by the Colorado Desert geomorphic province. This province extends about 775 miles south of the border between the U.S. and Mexico.

The geology of this province includes granitic rock intruding older metamorphic rocks, gradual west-facing slopes, and steep east-facing slopes (CGS 2002). The planning areas that lie generally within this province include the southern portions of the Westside, Metro, West San Gabriel Valley, and East San Gabriel Valley Planning Areas and the entirety of the South Bay, Gateway, and Coastal Islands Planning Areas (Los Angeles County 2015b; CGS 2002).

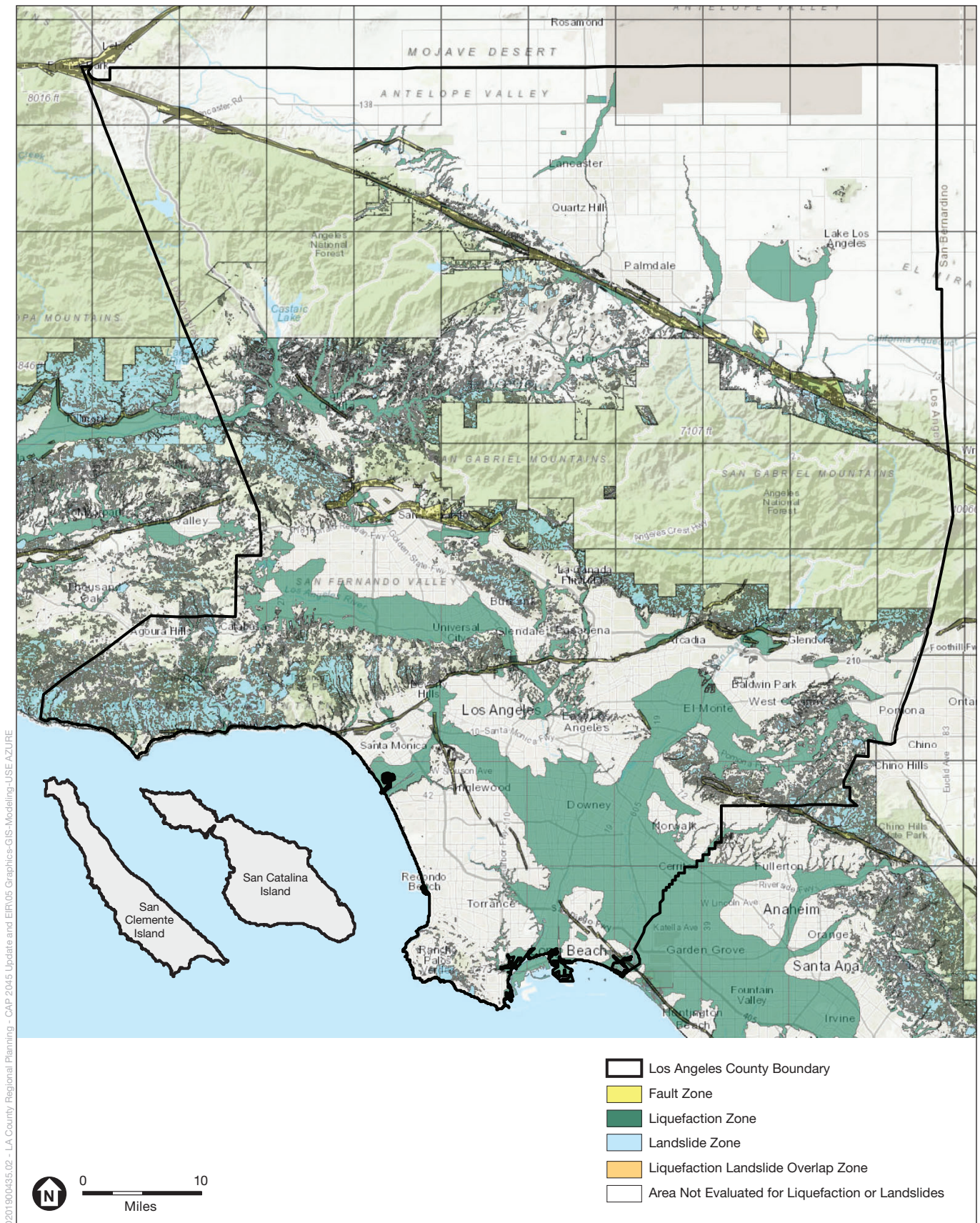
Soils

Soils throughout the Los Angeles County differ in origin, composition, and slope development. When evaluating potential impacts of development, soils are typically considered for their resource value in agricultural production or for their potential development characteristics or constraints. Some soils are susceptible to erosion and/or expansive behavior, while others are more suitable for compaction for construction. Soils are classified by their distinguishing characteristics and are arranged within soil associations, which are groups of soil units that occur together in a pattern over a geographic region.

The unincorporated urban islands generally have been characterized as having soils that are well suited for urban development. Exceptions include the Palos Verdes Hills (South Bay Planning Area), where corrosive and expansive soils have been identified, and areas in and around the city of Calabasas (Santa Monica Mountains Planning Area), where corrosive soils with high expansion potential have been identified (Los Angeles County 2015b). Portions of the Antelope Valley are underlain by soils with the potential for susceptibility to *hydrocollapse*, meaning that they undergo a radical rearrangement of particles and great decrease in volume upon wetting, additional loading, or both (Los Angeles County 2015b; Reclamation 1992). Soil collapse due to wetting can cause severe damage to canals, dams, pumping plants, power plants, pipelines, roads, buildings, fields, and miscellaneous structures associated with a variety of types of projects. The Los Angeles County Department of Public Works has compiled a Geographic Information System database for major soil types mapped within the County. The information in this database describes nearly two dozen soil types, including loams; clayey, silty, and sandy loams; clay adobes; and various alluvial and mountain soil types (Los Angeles County 2022).

Geologic Hazards

Los Angeles County's varied topography, numerous mountain ranges, and multiple fault lines render it susceptible to a variety of geologic hazards, including seismic hazards and geotechnical hazards. Seismic hazards are caused by earthquakes and include ground rupture, liquefaction, landsliding, and tsunamis. See **Figure 3.8-1**, *Geologic Setting of Unincorporated Areas of Los Angeles County*. Geotechnical hazards are most likely to occur in hilly or mountainous terrain and



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SOURCE: California Department of Conservation, 2022

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.8-1
Geologic Setting of Unincorporated Areas of Los Angeles County



include mud and debris flows, active deep-seated landslides, hillside erosion, undercutting of slopes, and human-induced slope instability. Geotechnical hazards can also result from soils that are expansive, compressible, or collapsible (Los Angeles County 2015b).

Faulting and Ground Shaking

Los Angeles County is located in a seismically active region of Southern California, with over 50 active and potentially active fault segments within its borders, an undetermined number of buried faults, and at least four blind thrust faults. Faults within Los Angeles County trend generally northwest-southeast. In the areas surrounding fault traces, fault and seismic hazard zones have been designated by LA County to identify areas of active seismic concern (Los Angeles County 2015b).

The California Geological Survey (CGS) defines *active faults* as those that have shown surface displacement within the past 11,000 years (the Holocene era) and *potentially active faults* as those that have ruptured between 11,000 and 1.6 million years ago (the Quaternary era) (CGS 2018). *Inactive faults* are those that demonstrate no evidence of movement within Quaternary time.

Several active fault lines have been identified within Los Angeles County, and the San Andreas Fault is the most prominent (Los Angeles County 2015b). This fault line enters Los Angeles County in its northwestern corner, extends along the northeastern side of the Angeles Crest, and crosses into San Bernardino County at the eastern border. The segment of this fault line within Los Angeles County extends through the Antelope Valley Planning Area. A variety of active fault lines that are substantially shorter than the San Andreas Fault crisscross the unincorporated urban islands. Many of these fault lines traverse an unincorporated urban island, or cross or are located near an unincorporated community. Many of these active faults, including the San Andreas Fault, are located within an Alquist-Priolo Earthquake Hazard Fault Zone. Because of the numerous active fault lines within unincorporated areas of the County, portions of the unincorporated areas of the County are susceptible to fault rupture, and Los Angeles County as a whole is susceptible to ground shaking from an earthquake occurring along any of numerous faults located within its borders, in surrounding counties, or off the coast. The strength of ground shaking is correlated with an area's proximity to an active fault line that triggers an earthquake (Los Angeles County 2015b).

Liquefaction

Liquefaction occurs when water-saturated soils that are loosely packed and granular in nature lose their cohesion when subjected to seismic activity and exhibit fluid-like characteristics. Soils subject to liquefaction are usually found in areas with a near-surface water table. The majority of seismically induced liquefaction zones are located in incorporated cities within the unincorporated urban islands geographical region. However, because numerous unincorporated urban islands are interspersed with incorporated cities throughout this region, liquefaction has the potential to occur within unincorporated urban islands as well. Additionally, there are several smaller liquefaction zones in the northern part of Los Angeles County within unincorporated urban islands in the Santa Clarita Valley and Antelope Valley Planning Areas (Los Angeles County 2015b; Koordinates.com 2019). *Liquefaction zones* identify where the stability of foundation soils must be investigated, and countermeasures undertaken in the design and construction of buildings for human occupancy. Statutes require that cities and counties use these zones as part of their construction permitting process.

Landslides

A *landslide* is the movement or flow of soil, rocks, earth, water, or debris down a slope. Seismic activity can trigger landslides, especially on steep slopes or on slopes with slide planes that move easily. CGS produces maps of potential landslide areas throughout California.

LA County designates landslide areas based on the CGS maps, which are updated periodically, often in response to a geologic event (DOC 2022). Over 50 percent of unincorporated areas of the County are composed of hilly or mountainous terrain. The steep slopes in these areas make them more prone to landsliding and to other hazards that are often associated with steep slopes, such as mudflows, debris flows, rockfalls, and natural or artificial compaction of unstable ground. The County's Hillside Management Areas Ordinance regulates development on hillsides that have natural slope gradients of 25 percent or steeper to address potential hazards related to steep slopes. Many of the areas shown as Seismically Induced Landslide Zones are also within a designated HMA (Los Angeles County 2015b).

Buildings Prone to Seismic Damage

Earthquake risks are not limited to ground shaking, fault rupture, or liquefaction, but could also damage inhabited buildings or sensitive, human-made infrastructure. Advances in the field of seismic engineering and strengthened building codes have significantly reduced the potential for catastrophic collapse in newly constructed buildings. However, many older buildings were designed and constructed before modern seismic design standards were incorporated into the building code. Certain building types are of particular concern: unreinforced masonry buildings and precast concrete tilt-up buildings (Los Angeles County 2021).

Erosion

Soil erosion is a natural, ongoing process that transports and displaces soil through mechanisms such as water or wind. The texture of soil, its compactness, and its structure influence its susceptibility to erosion, with texture having the most influence. Intermediate-textured soils are the most likely to undergo erosion, while soils with clay and particles that are coarser than sand tend to be more resistant to erosion. Areas with loosely textured soil overlying steep slopes are often highly susceptible to soil erosion. Wind erosion is most severe in arid regions because these areas often have unvegetated sandy or loamy sediments that are frequently exposed to high wind conditions (Los Angeles County 2015b).

The majority of the soils within Los Angeles County exhibit moderate to high erosion potential. Erosion can be exacerbated by development, which often results in removal of vegetative cover and addition of impervious surfaces. Construction has the potential to result in direct loss of topsoil, while vegetation removal has the potential to result in more permanent exposure of topsoil to erosive factors such as wind and runoff. The addition of impervious surfaces has the potential to increase runoff rates, thereby inducing erosion in downslope areas. The consequences of erosion range from increased siltation in storm drains to changes in topography and undercutting of nearby structures (Los Angeles County 2015b).

Desert Erosion

Human development in desert regions such as the Antelope Valley has the potential to exacerbate blowing sand, a severe form of wind erosion. Blowing sand has the potential to result in property damage and accumulation of soil on roadways. Additionally, blowing sand can result in reduced visibility on roadways and may cause health effects such as Valley Fever. See Section 3.4.1.2, *Environmental Setting*, in Section 3.4, *Air Quality*, for details about Valley Fever. Briefly, however, the fungus *Coccidioides immitis* is naturally present in certain soils. Fungi can be inhaled when stirred into the air by anything that disrupts soils in which the fungi are present, such as farming, construction, and wind. The fungus causes the disease coccidioidomycosis, known as Valley Fever. The fungus that can cause Valley Fever is known to occur in some soils throughout Los Angeles County, particularly in the Antelope Valley (Los Angeles County 2015c).

Coastal Erosion

Coastal erosion is a natural process that is typically most visible during storm events. Extreme erosion can result in visible coastline retreat and can involve strong wave action that undercuts slopes, leading to potential slope failure, property loss, and risks to human safety. The coastal areas of Los Angeles County are susceptible to wave erosion, and the area of Malibu within the Santa Monica Mountains Planning Area has undergone extreme erosion in the past. Naturally occurring coastal erosion forces can be exacerbated by human activities such as coastal road construction, channelization of surface water flows, or development on marine terraces.

The islands that make up the Coastal Islands Planning Area (Santa Catalina and San Clemente Islands) are surrounded by the Pacific Ocean, and two small portions of the unincorporated areas of the County in the Santa Monica Mountains Planning Area directly abut the ocean. One of these areas is an approximately 1.5-mile segment of unincorporated coastline immediately east of the city of Malibu and the other is an approximately 1-mile segment of unincorporated coastline immediately west of the city of Malibu. Areas of Los Angeles County that contain coastline are minimal relative to the aggregate size of the unincorporated County. Coastal erosion is thus not a prominent issue in the unincorporated areas of the County, but it does have the potential to occur in the two shoreline areas identified above and along the shorelines of Santa Catalina and San Clemente Islands.

Unstable Soils

Unstable soils include soils that are prone to landslide, lateral spreading, subsidence, liquefaction, or collapse. Landslides, as defined above, are the movement of earth material down a slope. *Lateral spreading* is a horizontal displacement of surficial blocks of sediments resulting from liquefaction in a subsurface layer of soil. *Subsidence* involves deep-seated settlement caused by the withdrawal of underground fluid (oil, natural gas, or water). *Liquefaction*, also defined above, occurs when soils behave in a fluid manner due to a loss of cohesion, generally caused by a seismic event. *Collapsible soils* are generally low-density, fine-grained granular soils that lose volume when they become saturated with water. Collapsible soils, when saturated, have the potential to undergo rapid settlement under relatively low loads.

As discussed above, the unincorporated areas of the County contain designated landslide and liquefaction zones. Because it is linked to liquefaction, lateral spreading would have the potential to occur within portions of the liquefaction zones. Subsidence would have the potential to occur in areas where groundwater or fossil fuels are being withdrawn in the unincorporated areas.

Expansive Soils

Expansive soils are those that change their volume depending on the presence and extent of water saturation in the soil. The Uniform Building Code defines the expansive potential of a soil by its expansion index, which, if greater than 20, typically requires special foundation design consideration under the Uniform Building Code. The expansive potential of soils is typically related to the type and amount of clay minerals in a soil, along with the moisture content of the soil and how often it changes (i.e., wet/dry cycles). Expansive soils can be widely dispersed and are found in hillside areas as well as low-lying areas in alluvial basins. Currently, no reliable maps show the distribution of expansive soils in Los Angeles County; however, all soils possess some capacity for expansive behavior (Los Angeles County 2015b). Through geotechnical testing and/or consultation with the Los Angeles County Department of Public Works, it can be determined whether a specific site contains expansive soils and to what extent these soils would affect a proposed project.

3.8.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) established the National Earthquake Hazards Reduction Program, which is coordinated through the Federal Emergency Management Agency (FEMA), the U.S. Geological Survey (USGS), the National Science Foundation, and the National Institute of Standards and Technology (FEMA 2021).

The purpose of this program is to establish measures for earthquake hazards reduction and promote the adoption of earthquake hazards reduction measures by federal, state, and local governments; national standards and model code organizations; architects and engineers; building owners; and others with a role in planning and constructing buildings, structures, and lifelines, through the following:

- Grants, contracts, cooperative agreements, and technical assistance
- Development of standards, guidelines, and voluntary consensus codes for earthquake hazards reduction for buildings, structures, and lifelines
- Development and maintenance of a repository of information, including technical data, on seismic risk and hazards reduction

The Earthquake Hazards Reduction Program is intended to improve the understanding of earthquakes and their effects on communities, buildings, structures, and lifelines through interdisciplinary research that involves engineering, natural sciences, and social, economic, and decision sciences.

Disaster Mitigation Act

The federal Disaster Mitigation Act (Public Law 106-390, 2000) provides the legal basis for FEMA mitigation planning requirements for state, local, and Indian tribal governments as a condition of mitigation grant assistance. Requirements of the Disaster Mitigation Act emphasize the need for state, local, and Indian tribal entities to closely coordinate mitigation planning and implementation efforts. The requirement for a state mitigation plan is continued as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans. The Disaster Mitigation Act also established a new requirement for local mitigation plans and authorized up to 7 percent of Hazard Mitigation Grant Program funds available to a state for development of state, local, and Indian tribal mitigation plans.

The California Governor's Office of Emergency Services manages hazard mitigation activities and projects through the Hazard Mitigation Grant Program (Cal OES 2018, 2022). For Los Angeles County, the *Public Draft 2019 County of Los Angeles All-Hazards Mitigation Plan* was issued in 2019 (Los Angeles County Chief Executive Office 2019).

Clean Water Act Section 402

Section 402 of the Clean Water Act (United States Code Title 33, Section 1251 et seq.) establishes a framework for regulating municipal and industrial stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) program. The NPDES program controls water pollution by regulating point sources that discharge pollutants, including rock, sand, dirt, and agricultural, industrial, and municipal waste, into waters of the United States. The U.S. Environmental Protection Agency has delegated to the State Water Resources Control Board (SWRCB) the authority for the NPDES program in California, which is implemented by the state's nine regional water quality control boards (RWQCBs). Under the NPDES Phase II Rule, construction activity disturbing one or more acres must obtain coverage under the State of California's General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit). As described further in Section 3.11, *Hydrology and Water Quality*, the Construction General Permit requires project applicants to develop and implement a Stormwater Pollution Prevention Plan (SWPPP), which specifies best management practices (BMPs) that reduce pollution in stormwater discharges to the Best Available Technology Economically Achievable/Best Conventional Pollutant Control Technology standards, and to perform inspections and maintenance of all BMPs.

U.S. Geological Survey Landslide Hazard Program

The USGS Landslide Hazard Program provides information on landslide hazards including information on current landslides, landslide reporting, real-time monitoring of landslide areas, mapping of landslides through the National Landslide Hazards Map, local landslide information, landslide education, and research. (See, generally, USGS 2022.)

State Laws, Regulations, and Policies

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) (Public Resources Code Section 2621; California Code of Regulations Title 14, Section 3601 et seq.) requires that special geologic studies be conducted to locate and assess any active fault traces in and around known active fault areas prior to development of structures for human occupancy to prevent the construction of such structures in such locations. In this way, the Alquist-Priolo Act provides measures to increase the safety of the state's citizens and to minimize the loss of life during and immediately following earthquakes by facilitating seismic retrofitting to strengthen buildings, including historical buildings, against ground shaking. The act addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. The purpose of the Seismic Hazards Mapping Act is to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and other hazards caused by earthquakes. The program and actions mandated by the Seismic Hazards Mapping Act closely resemble those of the Alquist-Priolo Act.

In furtherance of the Seismic Hazards Mapping Act, CGS has issued its *Guidelines for Evaluating and Mitigating Seismic Hazards in California* for evaluating seismic hazards other than surface fault rupture. The most current guidelines are provided in Special Publication 117A of 2008 (CGS 2008).

California Building Code

The California Building Code (CBC) is a compilation of building standards codified in California Code of Regulations Title 24, Part 2. Provisions of the CBC apply to the construction, alteration, movement, replacement, location, and demolition of every building or structure in California. The CBC is published on a triennial basis, and supplements and errata can be issued throughout the cycle. The 2019 edition of the CBC became effective on January 1, 2020, and is based on the 2018 International Building Code (IBC) of the International Code Council, with California amendments. The 2019 CBC incorporates the latest seismic design standards for structural loads and materials, as well as provisions from the National Earthquake Hazards Reduction Program (FEMA 2021) to mitigate losses from an earthquake.

CBC standards are based on the following:

- Building standards that have been adopted by state agencies without change from a national model code such as the IBC
- Building standards based on a national model code that have been changed to address conditions specific to California
- Building standards authorized by the California Legislature but not covered by the national model code

The CBC includes provisions for demolition and construction, as well as regulations regarding building foundations and soil types to protect people and property from hazards associated with falling debris or construction processes. Seismic standards within the CBC are among the strictest in the world because of California's susceptibility to earthquakes and other seismic events.

Southern California Catastrophic Earthquake Response Plan

The *Southern California Catastrophic Earthquake Response Plan*, based on CGS and USGS's Shake Out Scenario of 2008, was released in 2010 (CalEMA and FEMA 2018). It provides for examination of initial impacts, inventories of resources, care for those wounded and homeless, and development of a long-term recovery process characterized by a coordinated state/federal response to a catastrophic earthquake in Southern California.

The *Southern California Catastrophic Earthquake Response Plan* is supplemented by the 2012 *Los Angeles Regional Recovery Guidance for Emergency Planners* (Los Angeles County et al. 2012) and its process of Long-Term Regional Recovery. The Long-Term Regional Recovery process provides a mechanism for coordinating federal support to state, tribal, regional, and local governments, nongovernmental organizations, and the private sector to enable recovery from long-term consequences of extraordinary disasters. The Long-Term Regional Recovery process accomplishes this by identifying and facilitating the availability and use of recovery funding sources and providing technical assistance (such as impact analysis) for recovery and recovery planning support. In this case, *long-term* refers to the need to reestablish a healthy, functioning region that would sustain itself over time. Long-term recovery is not debris removal and restoration of utilities, which are considered immediate or short-term recovery actions. The three main focus areas of the Long-Term Regional Recovery process are housing, infrastructure (including transportation), and economic development.

Regional and Local Laws, Regulations, and Policies

Los Angeles County General Plan 2035

The Safety Element of the General Plan provides the following goals and policies potentially relevant to the Draft 2045 CAP (Los Angeles County 2015d):

Goal S 1: An effective regulatory system that prevents or minimizes personal injury, loss of life and property damage due to seismic and geotechnical hazards.

Policy S 1.1: Discourage development in Seismic Hazard and Alquist-Priolo Earthquake Fault Zones.

Policy S 1.2: Prohibit the construction of most structures for human occupancy adjacent to active faults until a comprehensive fault study that addresses the potential for fault rupture has been completed.

Policy S 1.3: Require developments to mitigate geotechnical hazards, such as soil instability and landsliding, in Hillside Management Areas through siting and development standards.

Policy S 1.4: Support the retrofitting of unreinforced masonry structures to help reduce the risk of structural and human loss due to seismic hazards.

The Conservation and Natural Resources Element of the General Plan provides the following goals and policies potentially relevant to the Project (Los Angeles County 2015e):

Goal C/NR 13: Protect visual and scenic resources.

Policy C/NR 13.5: Encourage required grading to be compatible with the existing terrain.

Policy C/NR 13.8: Manage development in HMAs to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.

Los Angeles County Hillside Management Areas

LA County's HMA Ordinance and related Hillside Design Guidelines apply to all unincorporated areas of the County that contain terrain with a natural slope of 25 percent or greater. The goal is to ensure that development preserves the physical integrity and scenic value of HMAs, provides open space, and enhances community character. The ordinance and guidelines implement those policies by ensuring that hillside development projects use sensitive and creative engineering, architectural, and landscaping site design techniques. Locating development outside of HMAs to the greatest extent feasible will be the first emphasis of sensitive hillside design. Where avoidance is not feasible, development of HMAs will be located in the lowest and flattest areas of the hillside to minimize impacts on steeper hillside areas. Last, development will utilize a variety of sensitive hillside design techniques to ensure compatibility with the hillside and enhance community character. Development within HMAs is regulated under the Special Management Area provisions of Chapter 22.104 of the Los Angeles County Planning and Zoning Code.

Los Angeles County Code—Building Code

The County Building Code is contained in Title 26 of the County Code. It adopts much of the CBC by reference and also contains rules and regulations governing activities that have the potential to result in soil erosion or slope instability. Appendix J of Title 26 includes regulations for excavation, grading, and earthwork; permitting procedures; and plan approval and grading inspection protocol. Section JI 10, Grading Projects, sets forth measures to reduce erosion during construction such as check dams, cribbing, riprap, and other best practice methods. Title 26 also includes seismic safety requirements for certain building types, such as older concrete tilt-up buildings and unreinforced masonry bearing wall buildings. The purpose of these requirements is to promote public safety and welfare by reducing the risk of death or injury resulting from damage to older buildings caused by earthquakes.

Los Angeles County Code—Erosion and Sediment Control Plans

The Grading Code includes regulations for erosion control and water quality for grading and other ground-disturbing operations. NPDES compliance is required for all projects within the unincorporated areas of the County. Additionally, all active grading projects with grading proposed during the rainy season (October 15 to April 15) require an erosion and sediment control plan. Grading permits are not issued by LA County until an erosion and sediment control plan is approved or details for erosion control are included in the grading plan. Erosion and sediment control plans include specific BMPs to minimize the transport of sediment and to

protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. The BMPs shown on erosion and sediment control plans must be installed on or before October 15. Erosion and sediment control plans must be revised annually or as required by the Building Official to reflect the current conditions of a site.

For grading projects with a disturbed area of one or more acres, the required state SWPPP may be used for fulfilling LA County’s erosion and sediment control plan requirements. As with an erosion and sediment control plan, a grading permit cannot be issued until the SWPPP has been submitted and approved by the Building Official (Los Angeles County Code Sections J110.8.2 and J110.8.3).

LA County All-Hazards Mitigation Plan

The General Plan’s Safety Element works in conjunction with LA County’s All-Hazards Mitigation Plan, which is prepared by the Los Angeles County Chief Executive Office – Office of Emergency Management and sets strategies for natural and man-made hazards in Los Angeles County (Los Angeles County Chief Executive Office 2019). The All-Hazards Mitigation Plan was adopted by the County of Los Angeles Board of Supervisors in October 2004 and has been approved by FEMA and the California Emergency Management Agency. The plan includes a compilation of known, projected, and historical hazards in the county and addresses all major natural and human-caused disasters that fall within the responsibilities of County departments within the geographic county. Earthquakes and landslides are addressed in the County All-Hazards Mitigation Plan, with earthquakes categorized as High Risk Priority Hazards and landslides categorized as Moderate Risk Priority Hazards.

3.8.2 Impact Analysis

3.8.2.1 Significance Criteria

To determine the level of significance of an identified impact, the following thresholds are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The project would have a significant impact related to geology and soils if it would:

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace? Refer to Division of Mines and Geology Special Publication 42;
 - ii) Strong seismic ground shaking;
 - iii) Seismic-related ground failure, including liquefaction and lateral spreading; or
 - iv) Landslides;
- b) Result in substantial soil erosion or the loss of topsoil;

- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- d) Be located on expansive soil¹ creating substantial direct or indirect risks to life or property;
- e) Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater; or
- f) Conflict with the Hillside Management Area Ordinance (Los Angeles County Code, Title 22, Chapter 22.104).

3.8.2.2 Methodology

This geology and soils analysis considers whether the Draft 2045 CAP, including projects facilitated by Draft 2045 CAP measures and actions, would exacerbate existing geologic hazards that would expose people or structures to substantial adverse impacts. To determine the significance of potential geology and soils impacts, the analysis compares the unincorporated areas relative to the location of known seismic hazards, such as active fault zones, landslide zones, and liquefaction zones. If projects facilitated by Draft 2045 CAP measures and actions could be developed within the aforementioned zones, then potential impacts could result. To determine the significance of impacts unrelated to seismic hazard zones, the analysis considers the impact of compliance with independently enforceable federal, state, and local requirements. Typically, compliance with all applicable regulations would ensure a less-than-significant impact on future projects. Impacts related to geology and soils are analyzed qualitatively. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.8.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas (GHG) emissions in unincorporated areas of the County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics, because the locations and design specifics of projects that would be facilitated by the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, the impacts of implementing specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy

¹ The CBC, based on the International Building Code and the now defunct Uniform Building Code, no longer includes a Table 18-1-B. Instead, Section 1803.5.3 of the CBC describes the criteria for analyzing expansive soils.

storage and distribution facilities, are evaluated qualitatively at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP.*)

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, does not identify any specific strategy, measure, or action as particularly relevant to the analysis of geology and soils related impacts. Nonetheless, any project facilitated by Draft 2045 CAP measures and actions that disturbs the ground surface could cause soil erosion or the loss of topsoil that is located on a geologic unit or soil that is unstable for any of the specified reasons could result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse and the resulting impacts to life and property. Specific impacts associated with geology and soils resources are analyzed below.

Criterion a.i) Whether the Project would directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace.

Impact 3.8-1: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that could cause potential substantial adverse impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace. Nonetheless, projects facilitated by Draft 2045 CAP measures and actions could be proposed in one of these areas.

The Alquist-Priolo Act prohibits the development of structures for human occupancy across active fault traces. Under the Alquist-Priolo Act, the California Geological Survey has established “Zones of Required Investigation” on either side of an active fault that delimits areas susceptible to surface fault rupture. The zones are referred to as *Earthquake Fault Zones* and are shown on official maps published by CGS (2021). Surface rupture occurs when the ground surface is broken as a result of a fault movement during an earthquake; typically, these types of hazards occur within 50 feet of an active fault.

The California Earthquake Hazards Zone Application (EQ Zapp) is an interactive map available on CGS’s website. The EQ Zapp allows users to view all available earthquake hazard zone data, including earthquake fault, liquefaction, and earthquake-induced landslide zones. According to the EQ Zapp, eight Earthquake Fault Zones cross through portions of the unincorporated areas of

the County: the East Montebello, Hollywood, Newport–Inglewood–Rose Canyon, San Andreas, San Gabriel, Santa Monica, Sierra Madre, and Raymond fault zones (CGS 2021).

Projects facilitated by Draft 2045 CAP measures and actions would require project-specific evaluation once details are known, but could include habitable structures within or adjacent to Earthquake Fault Zones. However, the construction of any new structure and improvements to certain existing structures in California is subject to the standards and requirements included in the most current versions of the CBC and, in Los Angeles County, the County Building Code, which adopts the CBC and adds additional LA County–specific requirements. In general, the CBC and the County Building Code require that every newly constructed structure (habitable or not) be subject to a geotechnical investigation that typically consists of a preliminary geotechnical investigation to characterize site conditions and inform the project design, followed by the final geotechnical investigation that provides final geotechnical recommendations to address problematic site conditions, if any. The CBC further requires that a fault study be included in the geotechnical investigation of any new development that is proposed near an active fault to verify no active fault passes through the site.

All projects facilitated by Draft 2045 CAP measures and actions would be constructed in accordance with all applicable state and local laws (e.g., the Alquist-Priolo Act, the CBC, and the County Building Code). Earthquake Fault Zones would be identified during the planning process for any new project, and avoided when the location of new habitable structures is decided. Adherence to project-specific geotechnical recommendations and applicable state and local laws would ensure that any adverse impacts from the presence of a known Earthquake Fault Zone would be less than significant.

Mitigation: None required.

Criterion a.ii) Whether the Project would directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving strong seismic ground shaking.

Impact 3.8-2: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving strong seismic ground shaking. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that could cause potential substantial adverse impacts, including the risk of loss, injury, or death involving strong seismic ground shaking. Los Angeles County is located in a historically seismically active region of California, as is evident by the presence of several Holocene-active faults in the area. The 2014 Working Group on California Earthquake Probabilities² concluded that there is an approximate 50 percent probability that a magnitude (moment magnitude) 6.7 earthquake or higher could occur in the Los Angeles region over the next 30 years, and a 53 percent chance of an earthquake of that magnitude within the southern portion of the San Andreas fault zone over the next

² A working group comprised of seismologists from the U.S. Geological Survey, California Geological Survey, Southern California Earthquake Center, and California Earthquake Authority.

30 years (Field et al. 2015). As discussed above, several faults transect the unincorporated areas of the County. The presence of these faults suggests that the unincorporated areas may be subject to strong seismic ground shaking in the event of an earthquake in the region.

Projects facilitated by Draft 2045 CAP measures and actions would be subject to all relevant federal, state, and local regulations and building standards, including the CBC and the County Building Code, as discussed above under Impact 3.8-1. Compliance with applicable building codes would ensure that each new project has undergone a project-specific geotechnical investigation before the issuance of permits, whereby project-specific geotechnical hazards would be identified and specific design criteria would be incorporated into individual project design plans. Geotechnical design criteria are incorporated to ensure that structures can withstand potential ground shaking from regional fault sources. Although projects facilitated by Draft 2045 CAP measures and actions (e.g., utility-scale solar power plants developed in the Antelope Valley) could be damaged by strong seismic ground shaking, potential damage to the components (such as photovoltaic panels) from seismic events could easily be repaired and would not pose a significant hazard of loss, injury, or death. Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by Draft 2045 CAP measures and actions would not cause substantial adverse impacts, including the risk of loss, injury, or death involving strong seismic ground shaking. A less-than-significant impact would result.

Mitigation: None required.

Criterion a.iii) Whether the Project would directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading.

Impact 3.8-3: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would cause potential substantial adverse impacts, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading. *Liquefaction* is a phenomenon in which unconsolidated, water-saturated sediments become unstable as a result of the impacts of strong seismic shaking. During an earthquake, these sediments can behave like a liquid, potentially causing severe damage to overlying structures. *Lateral spreading* is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads as a result of the effects of gravity, usually down gentle slopes. *Liquefaction-induced lateral spreading* has been defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake (Rauch 1997). The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table).

The potential damaging impacts from liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs from sand boiling, and buckling of deep foundations caused by ground settlement. Dynamic settlement (pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure. According to the EQ Zapp, there are several areas of concern for liquefaction potential in unincorporated areas of the County (CGS 2021).

Projects facilitated by Draft 2045 CAP measures and actions could be subject to impacts from liquefaction and/or lateral spreading should they be proposed in susceptible areas, thereby exposing people and structures to the potentially damaging impacts from liquefaction and/or lateral spreading. Earthquake-induced liquefaction or lateral spreading could occur in unincorporated areas of the County, potentially resulting in damage to new structures, service interruptions, and injuries to the public.

Projects facilitated by Draft 2045 CAP measures and actions would be subject to all relevant federal, state, and local regulations and building standards, including the CBC and the requirements of the LA County's building and grading codes. Construction-related grading would require the preparation and submittal of site-specific grading plans and geotechnical investigation reports that must be reviewed and approved by LA County before construction may begin. Geotechnical design criteria and proper soil engineering procedures would be incorporated to ensure that problematic soils are accounted for and structures can withstand potential damage from liquefaction and/or lateral spreading. Geotechnical investigation reports would provide recommendations for grading and for foundation design to reduce hazards to people and structures arising from liquefaction and other seismic-related ground failure. In areas subject to seismic-induced ground failure, the condition may be addressed by removing and replacing the soils with compacted fill not susceptible to failure or the soil may be stabilized using a gelling agent before construction. In locations with high groundwater levels, dewatering may be required to ensure that the construction area is dry during foundation construction. Compliance with these standards and codes would ensure that each new project has undergone a project-specific geotechnical investigation before the issuance of grading permits, which would identify project-specific geotechnical hazards and specific design criteria that would be incorporated into individual project design plans. In addition to aspects of the existing regulatory framework and standard construction practices that would lessen potential impacts related to liquefaction, consistency with General Plan Policy S 1.3 that requires developments to mitigate geotechnical hazards in Hillside Management Areas through siting and development standards that would minimize the potential for liquefaction.

Projects in the Antelope Valley that would be facilitated by Draft 2045 CAP measures and actions, such as utility-scale solar power plants, would not be expected to be subject to liquefaction-related impacts because the water table in the region's public supply wells is reported to be at depths greater than 180 feet (City of Lancaster 2017).

Compliance with project-specific geotechnical design recommendations, applicable building code standards and other federal, state, and local requirements would ensure that projects facilitated by Draft 2045 CAP measures and actions would not cause substantial adverse impacts, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. A less-than-significant impact would result.

Mitigation: None required.

Criterion a.iv) Whether the Project would directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving landslides.

Impact 3.8-4: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving landslides. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would cause potential substantial adverse impacts, including the risk of loss, injury, or death involving landslides. Landslides are one of the various types of downslope movements (mass wasting) in which rock, soil, and other debris are displaced as a result of the effects of gravity. The potential for material to detach and move downslope depends on multiple factors, including the type of material, water content, and steepness of terrain. According to the EQ Zapp, several unincorporated areas in the County have the potential for earthquake-induced landslides (CGS 2021). Earthquake-induced landslides could occur in the unincorporated areas of the County, resulting in the potential for damage to new structures, service interruptions, and injuries to the public. Accordingly, projects facilitated by Draft 2045 CAP measures and actions would be subject to the impacts from earthquake-induced landslides if proposed in susceptible areas and, if so, could expose people and structures to the potentially damaging impacts from landslides.

However, as discussed above, all projects facilitating Draft 2045 CAP measures and actions would be required to comply with federal, state, and local laws, including the CBC and the County Building Code. Compliance with the applicable standards and codes would ensure that each new project has undergone a project-specific geotechnical investigation before the issuance of grading permits, which would identify project-specific geotechnical hazards and specific design criteria that would be incorporated into individual project design plans. Geotechnical design criteria would be incorporated into geotechnical investigations to verify the stability of nearby slopes and soils, and to provide recommendations to protect projects from causing or being affected by landslides. Consistency with General Plan goals and policies related to grading would also reduce the potential for any slope instability.

Compliance with project-specific geotechnical design recommendations and all applicable requirements and standards would ensure that new projects facilitated by Draft 2045 CAP measures and actions would not cause substantial adverse impacts, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. A less-than-significant impact would result.

Mitigation: None required.

Criterion b) Whether the Project would result in substantial soil erosion or the loss of topsoil.

**Impact 3.8-5: The Project would not result in substantial soil erosion or loss of topsoil.
(Less-than Significant Impact)**

The Draft 2045 CAP is a policy document that does not include specific projects that would result in substantial soil erosion or loss of topsoil; it is intended to reduce Countywide GHG emissions and would support development already allowed under the General Plan's land use assumptions of the 2021–2029 Housing Element. Nonetheless, construction projects facilitated by Draft 2045 CAP measures and actions to decarbonize buildings and vehicles, such as large utility-scale energy projects developed in the Antelope Valley, could include large-scale earth-moving activities that could increase the risk of erosion or sediment transport as a result of clearing, excavation, grading, trenching, or soil stockpiling. The implementation of these and other projects facilitated by Draft 2045 CAP measures and actions (including any development on steep slopes) could create a significant impact related to erosion or sediment transport if construction activities went unregulated.

However, sufficient independently enforceable laws, regulations, plans, and standards are in place to assure that the impacts would be less than significant. To combat erosion and sedimentation caused by earth-moving activities, new projects facilitated by Draft 2045 CAP measures and actions that would disturb one or more acres are subject to the provisions of the *NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ (Construction General Permit), described in Section 3.11, *Hydrology and Water Quality*. Projects facilitated by Draft 2045 CAP measures and actions that would disturb less than one acre, but that would be part of a larger common plan of development disturbing one or more acres in total, also would be regulated under this permit. Projects facilitated by Draft 2045 CAP measures and actions that would disturb less than one acre would be regulated under the LA County's Municipal Separate Storm Sewer System Permit. These state requirements were developed to ensure that erosion from construction sites is controlled and monitored, as described below.

The Construction General Permit requires preparation and implementation of an SWPPP, which imposes BMPs to control stormwater run-on and runoff from construction work sites. Typical examples of erosion-related construction BMPs include the creation of physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, use of infiltration swales, and protection of stockpiled materials. The SWPPP also requires the prevention of sediment loss from a work site being mobilized by wind through the required covering of inactive stockpiles from wind erosion. The list of BMPs to be implemented on any given construction site would be identified and developed by a qualified SWPPP professional (i.e., Qualified SWPPP Developer) to meet the performance standards in the Construction General Permit before the start of construction. LA County's Municipal Separate

Storm Sewer System Permit that would be applied to smaller (i.e., less than 1 acre) projects contains similar requirements to prevent erosion from water or wind. The implementation of BMPs in compliance with the Construction General Permit or LA County's Municipal Separate Storm Sewer System Permit would avoid or substantially reduce erosion from water or wind during construction. Similar to building code compliance, the Construction General Permit is a state requirement; all new projects facilitated by Draft 2045 CAP measures and actions would be subject to this requirement. Therefore, neither the Draft 2045 CAP nor projects facilitated by Draft 2045 CAP measures and actions would not result in substantial soil erosion or loss of topsoil. This impact would be less than significant.

Mitigation: None required.

Criterion c) Whether the Project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

Impact 3.8-6: The Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The Draft 2045 CAP is intended to reduce Countywide GHG emissions and would support development already allowed under the General Plan's land use assumptions of the 2021–2029 Housing Element. Nonetheless, as discussed above, the EQ Zapp indicates that several areas within the unincorporated areas of the County are susceptible to unstable geologic or soils conditions. Figure 3.8-1, *Geologic Setting of Unincorporated Areas of Los Angeles County*, identifies areas known to be susceptible to liquefaction, lateral spreading, or landslides. Although possible without a seismic event, liquefaction, lateral spreading, or landslides are more commonly associated with seismic event, which are analyzed above under Impact 3.8-3 and Impact 3.8.4.

According to the interactive map on the USGS website that depicts areas of land subsidence in California, unincorporated areas within the County show evidence of land subsidence resulting from groundwater withdrawal (USGS 2021). Projects facilitated by Draft 2045 CAP measures and actions could cause an impact related to criterion c) if they would require dewatering during construction. Dewatering is a common technique used during construction to lower the water table when excavations are planned to be deeper than the existing water table. Dewatering involves removing or draining groundwater via various pumping methods. If excessive dewatering were to occur as a result of individual projects facilitated by Draft 2045 CAP measures and actions, it could exacerbate land subsidence in the region.

As discussed above, all new projects are required by law to comply with the CBC and the County Building Code. These codes contain provisions for soil preparation/conditioning to minimize hazards from unstable and expansive soils. Grading and soil compaction would also require the preparation of site-specific grading plans and soils and geology reports to address liquefaction, subsidence, and other potential geologic or soil stability issues. Such plans and geotechnical investigation reports must be submitted for LA County review and approval before the start of on-site activities. Compliance with the applicable building codes would ensure that each new project has undergone a project-specific geotechnical investigation before the issuance of grading permits, which would identify project-specific geotechnical hazards and specific design criteria that would be incorporated into individual project design plans. Geotechnical design criteria are incorporated into geotechnical investigations to verify the stability of nearby slopes and soils, and to provide recommendations to protect projects from causing or being affected by liquefaction, lateral spreading, landslides, and subsidence. Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by Draft 2045 CAP measures and actions would not cause substantial adverse impacts, including the risk of loss, injury, or death involving strong liquefaction, lateral spreading, landslides, and subsidence. A less-than-significant impact would result.

Mitigation: None required.

Criterion d) Whether the Project would be located on expansive soil creating substantial direct or indirect risks to life or property.

Impact 3.8-7: The Project would not be located on expansive soil creating substantial direct or indirect risks to life or property. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would be located on expansive soil. The Draft 2045 CAP would be a policy document intended to reduce Countywide GHG emissions and would support development already allowed under the General Plan's land use assumptions of the 2021–2029 Housing Element. Nonetheless, projects facilitated by Draft 2045 CAP measures and actions could be proposed in such locations.

Expansive soils are soils that possess a “shrink-swell” characteristic. *Shrink-swell* is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. This property is measured using the coefficient of linear extensibility (COLE) (NRCS 2017). The U.S. Natural Resources Conservation Service (NRCS) relies on linear extensibility measurements to determine the shrink-swell potential of soils. If the linear extensibility percent is more than 3 percent (COLE=0.03), shrinking and swelling may cause damage to buildings, roads, and other structures (NRCS 2017). NRCS Web Soil Survey data indicate that the soils in unincorporated areas of the County have highly variable linear extensibility ratings, with percentages ranging from 1.5 to 6.5, indicating linear extensibility ratings ranging from low to high. As a result, projects facilitated by Draft 2045 CAP measures and actions could be

constructed on expansive soils and thereby could create a substantial risk to life or property if not properly regulated.

However, sufficient independently enforceable laws, regulations, plans, and standards are in place to assure that impacts would be less than significant. The CBC requires geotechnical investigations to include soil testing, which identify the presence of a variety of geotechnical constraints related to soil quality, including the expansion potential of the soil. As discussed above, all new projects facilitated by Draft 2045 CAP measures and actions in the unincorporated areas of the County would be subject to the standards and requirements included in the CBC and County Building Code. Additionally, each new project facilitated by Draft 2045 CAP measures and actions would be subject to individual project review. Project-specific investigations would identify any potential geotechnical hazards (such as the presence of expansive soils) and each project would adhere to the specific geotechnical requirements, as required by law. Compliance with state and local laws governing new development in the unincorporated areas of the County would ensure that impacts of the Draft 2045 CAP and projects facilitated by Draft 2045 CAP measures and actions related to expansive soils would be less than significant.

Mitigation: None required.

Criterion e) Whether the Project would have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater.

Impact 3.8-8: The Project would not have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document intended to reduce unincorporated Countywide GHG emissions and would support development already allowed under the General Plan's land use assumptions of the 2021–2029 Housing Element. Implementation of projects facilitated by Draft 2045 CAP measures and actions may generate wastewater. Individual projects that include structures may connect to existing sewer lines, on-site septic tanks, and/or alternative wastewater disposal systems (rare). In the event that a septic tank or alternative wastewater disposal system installation is proposed, a testing and permitting process would be completed before installation based on individual project-level review of projects facilitated by Draft 2045 CAP measures and actions.

The Web Soil Survey provides septic tank absorption field data to inform developers of the suitability of soil for supporting the use of septic tanks and other alternative wastewater treatment systems. Web Soil Survey data suggest that the suitability of the soils in the unincorporated areas of the County varies from not limited to very limited and may have one or more features that are unfavorable to septic tank usage. Any new projects facilitated by Draft 2045 CAP measures and actions that would include the utilization of a septic tank or alternative wastewater disposal system would be regulated by the Los Angeles County Department of Public Health and the Land Use Program of the Environmental Health Division.

Home and business property owners that want to install or replace an onsite wastewater treatment system must submit an application and the required documents listed on the application to go through the onsite wastewater treatment system review process. Obtaining a permit would be required before the construction of any septic tank or alternative wastewater disposal system, and each system would be constructed within the parameters of the SWRCB's *Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems* (SWRCB 2012). System design approvals may be submitted to the County Building and Safety Department before building permits are obtained for proposed projects.

Because this procedure would be required before the construction of any and all septic tanks and alternative wastewater disposal systems, all projects facilitated by Draft 2045 CAP measures and actions would be subject to these state and local requirements. Proper soils are essential for installation and maintenance of septic tank and alternative wastewater disposal systems. Compliance with these state and local requirements would ensure that impacts of the Draft 2045 CAP and projects facilitated by Draft 2045 CAP measures and actions related to adequate soils for supporting such systems would be less than significant.

Mitigation: None required.

Criterion f) Whether the Project would conflict with the Hillside Management Area Ordinance (Los Angeles County Code, Title 22, Chapter 22.104).

Impact 3.8-9: The Project would not conflict with the Hillside Management Area Ordinance (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that could conflict with the Hillside Management Area Ordinance or its related Hillside Design Guidelines. The ordinance is a component of the General Plan and is designed to preserve significant natural features in hillside areas. HMAs are defined as areas with natural slopes of 25 percent or greater. Compliance with the Hillside Design Guidelines would be required prior to development in an HMA, unless exempted under provisions of the ordinance. In hillside areas with less than 25 percent slope, use of the Hillside Design Guidelines is optional but encouraged. These guidelines include specific and measurable design techniques that can be applied to residential, commercial, industrial, and other types of projects to ensure that natural features in hillside areas are preserved. Projects facilitated by Draft 2045 CAP measures and actions could be proposed in HMA-designated areas. If so, then the new development would be regulated under the HMA Ordinance and subject to the Hillside Design Guidelines on a project-specific basis. Requisite compliance with the ordinance would assure that new projects facilitated by Draft 2045 CAP measures and actions would not result in a significant impact.

Mitigation: None required.

3.8.2.4 Cumulative Impacts

Geologic and soils impacts are site specific, and therefore would not contribute to cumulative impacts. Cumulative impacts could result from the initiation of projects facilitated by Draft 2045 CAP measures and actions.

Cumulative impacts for thresholds criteria a) through f) are addressed under Impact 3.8-10.

Impact 3.8-10: The Project would result in less than significant cumulative impacts related to geology and soils. (*Less-than-Significant Cumulative Impact*)

Most of Southern California, including unincorporated areas of the County, is located in an area of a relatively high seismic activity. Cumulative impacts related to geology and soils would not result unless projects facilitated by the Draft 2045 CAP were developed in the same location as other closely-related past, present, and reasonably foreseeable future projects in such a way that their incremental impacts would combine with the incremental impacts of projects facilitated by the Draft 2045 CAP measures and actions to create geologic hazards, including unstable geologic conditions, or contribute substantially to erosion. All cumulative development in the Project area and adjacent cities would be subject to the CBC. Additionally, cumulative projects would be subject to the Alquist-Priolo Act, which restricts development on active fault traces. Because of the site-specific nature of geological conditions (e.g., soils, geological features, seismic features), geology and soils impacts are typically assessed on a project-by-project basis, rather than on a cumulative basis. Nonetheless, implementation of Draft 2045 CAP measures and actions has the potential to expose a greater number of people to seismic hazards. Future cumulative development facilitated by Draft 2045 CAP measures and actions and other reasonably foreseeable future projects located within the surrounding area would be subject to the same local, state, and federal regulations pertaining to geology and soils, including the CBC and County Building Code requirements (or city building code requirements, as appropriate). Therefore, The Project, in combination with other cumulative projects, would not contribute to a potentially significant cumulative impact. cumulative impacts would be less than significant, and the Project's contribution would be less than cumulatively considerable.

Mitigation: None required.

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3.9 Greenhouse Gas Emissions

This section identifies and evaluates issues related to greenhouse gas (GHG) emissions to determine whether the Project would result in a significant impact on the environment. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various substantive issues and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to GHG emissions request the EIR show how the Draft 2045 CAP addresses multiple types of GHGs (including methane and nitrous oxides) and identify available resources as including the Southern California Association of Governments' (SCAG's) Regional Climate Adaptation Framework, which consists of the *Southern California Climate Adaptation Planning Guide* (SCAG 2020a), Communication and Outreach Toolkit, Library of Model Policies, and *Senate Bill 379 Compliance Curriculum for Local Jurisdictions* (SCAG 2021).

3.9.1 Setting

3.9.1.1 Study Area

The relevant area of consideration for climate change and the analysis of GHG emissions is broad, given that worldwide emissions and their global impacts influence climate change. However, the study area for this analysis is guided by CEQA Guidelines Section 15064(d), which directs lead agencies to consider an “indirect physical change” only if that change is a reasonably foreseeable impact that may be caused by a project. Consistent with this direction and in a statewide context, the study area for this analysis of GHG emissions impacts consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of the County. See Figure 2-1, *Map of Unincorporated Los Angeles County*.

3.9.1.2 Environmental Setting

Greenhouse Gases

Gases that trap heat in the atmosphere are called GHGs. The State of California defines GHGs as carbon dioxide (CO₂), methane, nitrous oxide, sulfur hexafluoride, perfluorocarbons, and hydrofluorocarbons. The major concern with GHGs is that increases in their concentrations are causing global climate change. *Global climate change* refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and storms. Historical records indicate that global climate changes have occurred due to natural phenomena; however, current data increasingly indicate that the current global conditions differ from past climate changes in rate and magnitude. Global climate change attributable to

anthropogenic (human) sources of GHG emissions is one of the most important and widely debated scientific, economic, and political issues in the United States and the world. The extent to which increased concentrations of GHGs have caused or will cause climate change and the appropriate actions to limit and/or respond to climate change are the subject of significant and rapidly evolving regulatory efforts at the federal and state levels of government.

GHGs are compounds in the earth's atmosphere that play a critical role in determining temperature near the earth's surface. More specifically, these gases allow high-frequency shortwave solar radiation to enter the earth's atmosphere, but retain some of the low-frequency infrared energy, which is radiated back from the earth toward space, resulting in a warming of the atmosphere.

Not all GHGs possess the same ability to induce climate change; as a result, GHG contributions commonly are quantified in the units of equivalent mass of carbon dioxide (CO₂e). CO₂e emissions are calculated by applying the proper global warming potential (GWP) value to pollutant-specific emissions.¹ These GWP ratios are available from the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report (AR4) (IPCC 1995, 2007). Compounds that are regulated as GHGs are discussed below.

Carbon dioxide (CO₂) is the most abundant GHG in the atmosphere, with the primary anthropogenic source being fossil fuel combustion from stationary and mobile sources.

Methane is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, anaerobic decomposition of organic matter in landfills, manure management, and leaks in natural gas pipelines.

Nitrous oxide is produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production.

Hydrofluorocarbons are fluorinated compounds consisting of hydrogen, carbon, and fluorine. They are typically used as refrigerants in both stationary refrigeration and mobile air conditioning systems.

Perfluorocarbons are fluorinated compounds consisting of carbon and fluorine. They are created primarily as a byproduct of aluminum production and semiconductor manufacturing.

Sulfur hexafluoride is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity.

¹ GWPs and associated CO₂e values were developed by the Intergovernmental Panel on Climate Change (IPCC) and published in its Second Assessment Report in 1996. Historically, GHG emissions inventories have been calculated using the GWPs from the IPCC's Second Assessment Report. The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4). The California Air Resources Board (CARB) reports GHG emissions inventories for California using the GWP values from the IPCC AR4. Therefore, this analysis uses the GWP values from IPCC AR4. Although the IPCC has released its Fifth Assessment Report with updated GWPs, CARB reports the statewide GHG inventory using the AR4 GWPs, which is consistent with international reporting standards.

Effects of Global Climate Change

California is one of the most “climate-challenged” regions of North America (Overpeck et al. 2013). *Climate* is usually defined as “average weather” and generally is described in terms of the mean and variability of temperature, precipitation, and wind, and in California each of the last three decades has been successively warmer than any preceding decade (OEHHA 2018). The scientific community’s understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties in, for example, predictions of local impacts of climate change, occurrence, frequency, and magnitude of extreme weather events, impacts of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Nonetheless, the IPCC, in its Fifth Assessment Report, Summary for Policy Makers, stated that “it is extremely likely that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forcings [*sic*] together” (IPCC 2013). A report from the National Academy of Sciences concluded that 97–98 percent of the climate researchers most actively publishing in the field support the tenets of the IPCC in that climate change is very likely caused by human (i.e., anthropogenic) activity (Anderegg et al. 2010).

According to the California Air Resources Board (CARB), the potential impacts in California due to global climate change may include: loss in snowpack; sea level rise; more extreme heat days per year; more high-ozone days; more large forest fires; more drought years; increased erosion of California’s coastlines and seawater intrusion into the Sacramento–San Joaquin Delta and associated levee systems; and increased pest infestation (CalEPA 2006). Below is a summary of some of the impacts that could be experienced in California as a result of global warming and climate change.

Temperature and Air Quality

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the impact and, therefore its indirect impacts, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which in turn would worsen air quality. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (CalEPA 2013). However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires. The South Coast region, a narrow band along the coast from Point Conception to the Mexican border, including the Los Angeles Basin and San Diego, has experienced the greatest warming among all the regions in California since 1895 (OEHHA 2018).

Heat events are projected to become more frequent and last longer. Since the 1980s, heat waves have become more humid, in part due to ocean warming, which prevents surfaces from cooling down at night, leading to higher nighttime temperatures. Southern California also has experienced

the greatest nighttime extreme heat trends, at least two times greater than daytime trends, and it experiences the greatest increases in both daytime and nighttime heat extremes during late spring (April–June) (OEHHA 2018). Data suggest that the predicted future increase in temperatures resulting from climate change could potentially interfere with efforts to control and reduce ground-level ozone in the region.

According to the Cal-Adapt website’s “Local Climate Change Snapshot” database (Cal-Adapt 2019), Los Angeles County could see an average annual increase in maximum temperature to 76.7 to 77.6 degrees Fahrenheit (°F) in the mid-century (2035–2064) and 77.7 to 80.9°F at the end of the century (2070–2099) compared to 72.5°F for the baseline period (1961–1990). The average annual number of extreme heat days also could increase to 19–23 days in the mid-century (2035–2064) and 24–44 days at the end of the century (2070–2099) compared to 4 days for the baseline period (1961–1990).

Water Supply

California’s highly variable climate includes inconsistent precipitation with multi-year wet or dry periods, such as the unusually wet years of 2005, 2011, and 2017, as well as the droughts of 2001–2004, 2007–2010, and 2012–2016 (CNRA 2018). More than other regions of the western United States, the presence or absence of these large storms within a given winter season determines California’s water resources because of their contribution to snowpack. Warmer, wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff would occur at a time when some basins are either being recharged at their maximum capacity or are already full. Conversely, a reduced snowpack coupled with increased rainfall during winters could lead to reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge (PISDES 2003).

In California, the spring snowpack runoff accounts for approximately 70 percent of the total water supply in the Colorado River Basin, which supplies approximately 55 percent of Southern California’s water. Since the 1950s, the snow water storage measurements on April 1 have declined by about 10 percent. Models predict that the mean snow water equivalent declines to less than two-thirds of its historical average by 2050, and by less than half by 2100. Unfortunately, the decline in the spring snowpack occurs even if precipitation amounts remains relatively stable; the snow loss results from a warmer climate (CNRA 2018). The loss of snowpack would reduce the amount of water available. According to the Cal-Adapt website’s “Local Climate Change Snapshot” database (Cal-Adapt 2019), Los Angeles County could see an average annual length of dry spells of 139–141 days in the mid-century (2035–2064) and 140–149 days at the end of the century (2070–2099), compared to 132 days for the baseline period (1961–1990). The average annual precipitation could decrease to 15.5 to 15.6 inches in the mid-century (2035–2064) and 15.6 to 15.9 inches at the end of the century (2070–2099), compared to 16.0 inches for the baseline period (1961–1990).

The California Department of Water Resources report on climate change and impacts on the State Water Project, Central Valley Project, and Sacramento–San Joaquin Delta concludes that “climate change will likely have a significant impact on California’s future water resources...[and] future water demand.” It also reports that “much uncertainty about future water

demand [remains], especially [for] those aspects of future demand that will be directly affected by climate change and warming. While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain” (PISDES 2003). It also reports that the relationship between climate change and its potential impact on water demand is not well understood, but “[i]t is unlikely that this level of uncertainty will diminish significantly in the foreseeable future.” Recent measurements of the levees in the Sacramento–San Joaquin Delta found mean subsidence rates of about 0.4 to 0.8 inches per year. This subsidence compounds the risk that sea level rise and storms could cause overtopping or failure of the levees, which would expose natural gas pipelines and other infrastructure to damage or structural failure. At this rate of subsidence, the levees may fail to meet the federal levee height standard (1.5 feet freeboard above the 100-year food level) between 2050 and 2080, depending on the rate of sea level rise (CNRA 2018).

To enhance the long-term reliability of water supply, the Los Angeles Department of Water and Power’s 2015 Urban Water Management Plan (LADWP 2021) includes the following goals:

- Recycle 100 percent of wastewater by 2035.
- Source 70 percent of water locally by 2035.
- Reduce per capita potable water use by 25 percent by 2035.
- Reduce the Los Angeles Department of Water and Power’s purchase of imported water by 50 percent by 2025.

Hydrology and Sea Level Rise

The central and southern coast of California has experienced a sea level rise of more than 5.9 inches over the 20th century, and sea levels will continue to rise substantially over the 21st century. Sea level rise can be a product of global warming through two main processes: expansion of seawater as the oceans warm and melting of ice over land. Flooding from sea level rise and coastal wave events leads to bluff, cliff, and beach erosion, which could affect large geographic areas. Future modeling simulations estimate that 31–67 percent of Southern California beaches may become completely eroded to the landward limit of coastal infrastructure or cliffs by the end of the century, assuming sea level rise scenarios from 3 to 6.6 feet and limited human intervention (CNRA 2018). The rise in sea levels could jeopardize California’s water supply. Increased storm intensity and frequency could also affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has a \$50 billion agricultural industry that produces half the country’s fruits, vegetables, nuts, flowers, and nursery crops (California Department of Food and Agriculture 2020). Many of California’s important crops, including fruit and nut trees, are particularly vulnerable to climate change impacts like changing temperature regimes and water-induced stress. Under changing climate conditions, agriculture is projected to experience lower crop yields due to extreme heat waves, heat stress and increased water needs of crops and livestock (particularly during dry and warm years), and new and changing pest and disease threats (CNRA 2018). Higher CO₂ levels can stimulate plant production and increase plant water use efficiency. However, if temperatures

rise and drier conditions prevail, water demand could increase; crop yield could be threatened by a less reliable water supply; and greater ozone pollution could render plants more susceptible to pest and disease outbreaks and interfere with plant growth. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thus affect their quality and quantity (California Climate Change Center 2006).

California historically has experienced multi-year droughts and has been able to support agricultural water demands through groundwater reserves, winter snowpack, reservoir storage, and conveyance of water throughout the state in canals. However, the higher temperatures that come with climate change will likely decrease snow storage and cause more frequent and severe droughts, and will require additional preparedness for more frequent surface water shortages and reliance on sustainable groundwater management (CNRA 2018).

Ecosystems

Changes in temperature, precipitation, food sources, competition for prey, and other physical or biological features of the habitat may force changes in the timing of key life-cycle events for plants and animals and shift the ranges where these plants and animals live (CNRA 2018). Range shifts have been observed in approximately 75 percent of small animal species and over 80 percent of bird species in the Sierra Nevada. High-elevation mammals moved upslope, while birds and low-elevation mammals moved downslope as frequently as upslope. The varied responses are a reflection of the species intrinsic sensitivity to temperature, precipitation, or other physical factors, such as changes in food sources, vegetation, and interactions with competitors. Additionally, range shifts have been noted in wintering bird species and time shifts of arriving species have been noted in butterflies and migratory birds. Furthermore, ocean acidification has affected many marine organisms and their food chain. Chinook salmon have been affected by climate change by both the number of adults returning to spawn and the increased mortality rate among juvenile salmon. Finally, during years of warmer sea temperature, California sea lions have had fewer birth rates, higher pup mortality, and increased numbers of pups having poor conditions (OEHHA 2018).

Wildfire

Wildfires in California over the past two decades are shown to be increasing in size, severity, and adverse impacts (CARB 2020). Warming temperatures as a result of climate change influences the length of both the fire and growing seasons and consequently affects the amount of time and intensity fires burn at and the amount of available fuels. Higher temperatures lead to drought, which decreases the fuel moisture and increases the likelihood of ignitions (CARB 2020). According to the Cal-Adapt website's "Local Climate Change Snapshot" database (Cal-Adapt 2019), Los Angeles County could see an average annual area burned of approximately 13,993–14,133 acres in the mid-century (2035–2064) and 13,036–13,788 acres at the end of the century (2070–2099), compared to 12,159–12,235 acres for the baseline period (1961–1990). Increased wildfire activity leads to more GHG emissions from sources that would otherwise be carbon sinks (CARB 2020). Between 2000 and 2019, emissions from wildfires ranged from a low of 1.2 million metric tons of carbon dioxide equivalent (MMTCO_{2e}) in 2010 to a high of 39 MMTCO_{2e}

in 2018, with an annual average of 14 MMTCO₂e. Further, CARB estimates that wildfire emissions increased dramatically in 2020, totaling 112 MMTCO₂e (CARB 2020).

Humans

Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change poses direct and indirect risks to public health, as people will experience earlier death and worsening illnesses. Temperature increases cause heat-related deaths and illnesses. In 2006, reported heat-related deaths and illness were much higher than in any other year because of a prolonged heat wave (OEHHA 2018). Nineteen heat-related events that had significant impacts on human health occurred from 1999 to 2009, resulting in about 11,000 excess hospitalizations (CNRA 2018). Additionally, indicators of the impacts of climate change on human health show that warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California.

Global and National Emissions

Worldwide human-caused emissions of GHGs were approximately 52,400 MMTCO₂e in 2019, including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation) (PBL and European Commission JRC 2020). Emissions of CO₂ from fossil fuel use and industrial processes account for 65 percent of the total, while CO₂ emissions from all sources account for 76 percent of the total GHG emissions. Methane emissions account for 16 percent and nitrous oxide emissions for 6.2 percent. In 2019, the United States was the world's second largest emitter of carbon dioxide, at 6,600 million metric tons (MMT) (China was the largest emitter of carbon dioxide, at 14,000 MMT) (PBL and European Commission JRC 2020).

Statewide Greenhouse Gas Emissions

CARB compiles GHG inventories for the State of California. Based on the year-2019 GHG inventory data (the latest year for which data are available), California emitted 418.2 MMTCO₂e, which includes emissions resulting from imported electrical power (CARB 2021a). In 2019, California emitted approximately 6.9 MMTCO₂e less GHG emissions than in 2018, and emissions have been on a declining trend since 2007. The state's population and economic activities increased substantially between 1990 and 2019. Despite the population and economic growth, California's net GHG emissions fell by approximately 3.5 percent. According to CARB, the declining trend coupled with the state's GHG reduction programs (such as the Renewables Portfolio Standard, Low Carbon Fuel Standard, vehicle efficiency standards, and declining caps under the Cap-and-Trade Program) demonstrate that California is on track to meet the GHG emissions reduction target in California Health and Safety Code Division 25.5, also known as the Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) (CARB 2016a).

Table 3.9-1, *State of California Greenhouse Gas Emissions*, identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2019. As shown, the transportation sector is the largest contributor to statewide GHG emissions, at approximately 40 percent in 2019.

**TABLE 3.9-1
 STATE OF CALIFORNIA GREENHOUSE GAS EMISSIONS**

Category	Total 1990 Emissions using IPCC SAR (MMTCO ₂ e)	Percent of Total 1990 Emissions	Total 2019 Emissions using IPCC AR4 (MMTCO ₂ e)*	Percent of Total 2019 Emissions*
Transportation	150.7	35 percent	166.1	39.7 percent
Electric Power	110.6	26 percent	58.8	14.1 percent
Commercial	14.4	3 percent	15.9	3.8 percent
Residential	29.7	7 percent	28.0	6.7 percent
Industrial	103.0	24 percent	88.2	21.1 percent
Recycling and Waste ^a	--	--	8.9	2.1 percent
High GWP/Non-Specified ^b	1.3	<1 percent	20.6	4.9 percent
Agriculture/Forestry	23.6	6 percent	31.8	7.6 percent
Forestry Sinks	-6.7	--	-- ^c	--
Net Total (IPCC SAR)	426.6	100 percent	--	--
Net Total (IPCC AR4)^d	431	100 percent	418.2	100 percent

NOTES:

AR4 = Fourth Assessment Report; GWP = global warming potential; IPCC = Intergovernmental Panel on Climate Change; MMTCO₂e = million metric tons of carbon dioxide equivalent; SAR = Second Assessment Report

* Totals may not add up exactly due to rounding.

a. Included in other categories for the 1990 emissions inventory.

b. High-GWP gases are not specifically called out in the 1990 emissions inventory.

c. Revised methodology under development (not reported for 2018).

d. The California Air Resources Board revised the state's 1990 level greenhouse gas emissions under GWPs from the IPCC AR4.

SOURCE: CARB 2021a.

Unincorporated County 2015 Baseline Emissions

LA County utilized the 2015 baseline GHG inventory based on the data available when the inventory was prepared for *OurCounty: Los Angeles Countywide Sustainability Plan* (OurCounty Sustainability Plan). The use of a different baseline year would not alter the findings or impact analysis of the Draft 2045 CAP because the GHG reduction targets are based on a percent below some identified baseline year. For instance, the use of a baseline year of 2018 would result in a proportionately adjusted GHG reduction percentage target depending on the relative difference in LA County's GHG emissions inventory in 2018 compared to 2015. Therefore, use of a 2015 baseline year is appropriate and technically sound, and constitutes a reasoned approach, as year 2015 data is readily available. As shown in **Table 3.9-2, *Baseline County Greenhouse Gas Inventory***, the Draft 2045 CAP estimates the unincorporated County's baseline GHG emissions in the year 2015 to be approximately 5.5 MMTCO₂e. Of this, the largest contributing sector is transportation (51.3 percent); followed by stationary energy (34.5 percent); solid waste (8.5 percent); industrial processes and product use (4.6 percent); and agriculture, forestry, and other land uses (1.1 percent).

**TABLE 3.9-2
 BASELINE COUNTY GREENHOUSE GAS INVENTORY**

Emissions Sector	Emissions (MTCO₂e) 2015
Stationary Energy	1,908,637
Transportation	2,838,133
Waste	469,997
IPPU	253,529
AFOLU	60,860
Total	5,531,155

NOTES:
 AFOLU = agriculture, forestry, and other land use; BAU = business-as-usual; IPPU = industrial processes and product use; MTCO₂e = metric tons of carbon dioxide equivalent
 SOURCE: Draft 2045 CAP, Appendix A

3.9.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

The federal government is extensively engaged in international climate change activities in areas such as science, mitigation, and environmental monitoring. The U.S. Environmental Protection Agency (USEPA) actively participates in multilateral and bilateral activities by establishing partnerships and providing leadership and technical expertise. Multilaterally, the United States has historically been a strong supporter of activities under the United Nations Framework Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change, or IPCC. In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of human-induced climate change, its potential impacts, and options for adaptation and mitigation. The IPCC’s most recent reports (<https://www.ipcc.ch/>) have emphasized the scientific consensus around the evidence that measurable changes to the climate are occurring because of human activity.²

USEPA is responsible for implementing federal policy to address GHGs. The federal government administers a wide array of public/private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO₂ gases, agricultural practices, and implementation of technologies to achieve GHG emissions reductions. USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the Energy Star labeling system for energy-efficient products) encourage voluntary reductions by large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

² Although many of these programs do not directly relate to California, they are nonetheless relevant as regulatory means of reducing the global impact of GHGs, which is by definition an issue of global, cumulative concern.

On September 15, 2009, the National Highway Traffic Safety Administration (NHTSA) and USEPA announced a proposed joint rule that would explicitly tie fuel economy to GHG emissions reductions requirements. In April 2020, USEPA and NHTSA amended the Corporate Average Fuel Economy (CAFE) and GHG emissions standards for passenger cars and light trucks and established new less stringent standards, covering model years 2021 through 2026 (Part Two of the Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). The CAFE and CO₂ emissions standards will increase in stringency at 1.5 percent per year from model year 2020 levels over model years 2021 through 2026. USEPA's standards are projected to require, on an average industry fleet-wide basis, 201 grams per mile of CO₂ in model year 2030, while NHTSA's standards are projected to require, on an average industry fleetwide basis, 40.5 miles per gallon in model year 2030 (*Federal Register* Volume 85, page 24174). California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020. Also, on January 20, 2021, President Joe Biden signed Executive Order (EO) 13990, directing the government to revise fuel economy standards with the goal of further reducing emissions.

On April 22, 2021, NHTSA proposed to formally roll back portions of the SAFE Vehicles Rule, thereby restoring California's right to set more stringent fuel efficiency standards. NHTSA also issued a new rule to increase the national fuel economy standard for light duty vehicles beyond those in Part Two of the SAFE Vehicles Rule (*Federal Register* Volume 86, page 24236). Moreover, on August 5, 2021, President Biden signed an executive order that targets making half of all new vehicles sold in 2030 zero-emissions vehicles, including battery electric, plug-in hybrid electric, or fuel cell electric vehicles (White House Briefing Room 2021a).

In September 2009, USEPA finalized a GHG reporting and monitoring system that began on January 1, 2010. In general, this national reporting requirement provides USEPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons (MT) or more of CO₂ per year. This new program covers approximately 85 percent of the nation's GHG emissions and applies to approximately 10,000 facilities.

At the Paris UNFCCC climate conference in December 2015 ("Paris Accord"), the United States set its intended nationally determined contribution to reduce its GHG emissions by 26–28 percent below its 2005 level in 2025 and to make best efforts to reduce its emissions by 28 percent. These targets were set with the goal of limiting global temperature rise to below 2 degrees Celsius and getting to the 80 percent emissions reduction by 2050 (UNFCCC 2017). On June 1, 2017, President Donald Trump withdrew the United States from the Paris Accord. However, on January 20, 2021, President Biden accepted the Paris Agreement (December 12, 2015) on behalf of the United States (White House Briefing Room 2021b).

To further the aims of environmental protections that were reversed under President Trump, President Biden signed EO 13990 on January 20, 2021 (White House Briefing Room 2021c), stating the Administration's intent to improve public health, limit exposure to dangerous chemicals, reduce pollution, prioritize environmental justice, and reduce GHG emissions.

During the Leaders Summit on Climate in April 2021, President Biden fulfilled his promise to rejoin the Paris Agreement and set a course for the United States to tackle the climate crisis at

home and abroad, reaching net zero emissions economy-wide by no later than 2050. Additionally, as part of reentering the Paris Agreement, the United States established a new 2030 GHG emissions target, known as the “nationally determined contribution,” which is a formal submission to the UNFCCC. The United States’ nationally determined contribution target aims for a 50–52 percent reduction in GHG emissions from 2005 levels by 2030 (White House Briefing Room 2021d). To achieve these goals, the United States has committed to all of the following actions:

- Achieve 100 percent carbon pollution-free electricity by 2035.
- Support efficiency upgrades and electrification in buildings.
- Reduce carbon pollution from the transportation sector.
- Reduce emissions from forests and agriculture and enhance carbon sinks.
- Address carbon pollution from industrial process.
- Reduce non-CO₂ GHGs, including methane, hydrofluorocarbons, and other potent short-lived climate pollutants.
- Invest in innovation of affordable, reliable, and resilient clean technologies and infrastructure.

At the 26th Conference of Parties (COP26) held in Glasgow, the United States and 190 other countries reiterated their pledge to the Paris Agreement and formed a global pact to limit global warming to less than 1.5 degrees Celsius. As part of the pledge, the United States and China, the world’s two largest GHG emitters, committed to a joint declaration to collaborate on limiting global warming to the 1.5 degrees Celsius threshold through reducing methane emissions, phasing down coal as an energy source, increasing renewable energy generation, and decarbonization. COP26 also saw the United States and 100 other countries sign a Global Methane Pledge in an effort to reduce methane emissions domestically and worldwide. President Biden also announced the launch of the President’s Emergency Plan for Adaptation and Resilience (PREPARE), which serves as a guide for the United States’ response to global climate crises (White House Briefing Room 2021a).

Federal Clean Air Act

Section 202

In *Massachusetts v. Environmental Protection Agency* (2007) 549 U.S. 497, the U.S. Supreme Court held that USEPA has statutory authority under Section 202 of the federal Clean Air Act to regulate GHGs. The court did not hold that USEPA was required to regulate GHG emissions; however, it indicated that the agency must decide whether GHGs cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act. USEPA adopted a Final Endangerment Finding for the six defined GHGs (CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Clean Air Act Section 202(a)(1) consistently with the U.S. Supreme Court decision. USEPA also adopted a Cause or Contribute Finding in which the USEPA Administrator found that GHG emissions from new motor vehicle and motor vehicle

engines are contributing to air pollution, which is endangering public health and welfare. These findings do not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (Clean Air Act Section 211[c][4][B]) facilitates the reduction of national GHG emissions by requiring the following actions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.
- Require approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; and require approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020.
- While superseded by the USEPA and NHTSA actions described above, (i) establish miles-per-gallon targets for cars and light trucks and (ii) direct NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of the Energy Independence and Security Act address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.³

State Laws, Regulations, and Policies

California has promulgated a series of executive orders, laws, and regulations aimed at reducing both the level of GHGs in the atmosphere and emissions of GHGs from commercial and private activities within the state.

Executive Order S-1-07

EO S-1-07 proclaims that the transportation sector is California's main source of GHG emissions, generating more than 40 percent of statewide emissions. It established a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10 percent by 2020. This order also directed CARB to determine whether the Low Carbon Fuel Standard could be adopted as a discrete early-action measure, as part of the effort to meet AB 32 mandates.

³ A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.

Executive Order S-3-05

EO S-3-05 set forth the following targets for progressively reducing statewide GHG emissions (Office of the Governor of California 2005):

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The executive order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary is also mandating that biannual reports be submitted to the California Governor and Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The first CAT Report to the Governor and the Legislature in 2006 contained recommendations and strategies to help meet the targets in EO S-3-05. The most recent 2020 State Agency Greenhouse Gas Reduction Report Card documents the effectiveness of measures to reduce GHG emissions in California and GHG emissions from state agencies' operations (CalEPA 2020). This report card documents reductions of 76 MMTCO_{2e} that occurred in 2019. In 2016, GHG emissions were 429 MMTCO_{2e},⁴ showing that California reached its 2020 emissions target (431 MMTCO_{2e}) four years early, and emissions are continuing to decline.

Executive Order B-30-15

In 2015, EO B-30-15 promulgated the following targets and measures (Office of the Governor of California 2015):

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

Executive Order B-55-18

EO B-55-18 was signed by Governor Edmund G. Brown Jr. on September 10, 2018 (Office of the Governor of California 2018). The order establishes an additional statewide policy to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter. As per EO B-55-18, CARB is directed to work with relevant state agencies to develop a framework for implementation

⁴ According to the 2016 GHG Inventory. Available: https://ww3.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-18.pdf, accessed December 2021.

and accounting that tracks progress toward this goal and to ensure future Climate Change Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

Assembly Bill 32

In 2006, the California Legislature adopted AB 32 (Health and Safety Code Division 25.5), also known as the California Global Warming Solutions Act of 2006, with a focus on reducing GHG emissions in California to 1990 levels by 2020. This act defines GHGs as CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. The California Global Warming Solutions Act assigned CARB the primary responsibility for reducing GHG emissions, by adopting rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

As required by the California Global Warming Solutions Act, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020, originally set at 427 MMTCO_{2e}, using the GWP values from the IPCC Second Assessment Report. CARB established the GHG emissions reduction target based on GWP values from the IPCC Fourth Assessment Report (AR4) and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 MMTCO_{2e}.

CARB approved the initial AB 32 Scoping Plan in 2008 (CARB 2008). It approved the *First Update to the Climate Change Scoping Plan* (2014 Scoping Plan) in May 2014 and built upon the 2008 Scoping Plan with new strategies and recommendations (CARB 2014a). In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 MMTCO_{2e}. CARB also updated the state's 2020 business-as-usual (BAU) emissions estimate to account for the impact of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were adopted for motor vehicles and renewable energy. CARB's projected statewide 2020 emissions estimate using the GWP values from the IPCC AR4 is 509.4 MMTCO_{2e}.

Therefore, under the 2014 Scoping Plan, the emission reductions necessary to achieve the 2020 emissions target of 431 MMTCO_{2e} would be 78.4 MMTCO_{2e}, or a reduction of GHG emissions by approximately 15.4 percent.

Senate Bill 32 and Assembly Bill 197

In 2016, the California Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197. SB 32 and AB 197 amended Health and Safety Code Division 25.5, and established a new climate pollution reduction target of 40 percent below 1990 levels by 2030, with provisions included to ensure that the benefits of state climate policies reach into disadvantaged communities. In response to the 2030 GHG reduction target, CARB adopted the 2017 Scoping Plan (CARB 2017). The 2017 Scoping Plan outlines the strategies the state will implement to achieve the 2030 GHG emissions reduction target, which build on the Cap-and-Trade Program,

the Low Carbon Fuel Standard, improved vehicle, truck, and freight movement emissions standards, increasing renewable energy, and strategies to reduce methane emissions from agricultural and other wastes by using it to meet California’s energy needs. CARB’s projected statewide 2030 emissions take into account 2020 GHG reduction policies and programs. The 2017 Scoping Plan also comprehensively addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. The adopted 2017 Scoping Plan includes ongoing and statutorily required programs and continuing the Cap-and-Trade Program. This Scoping Plan Scenario was modified from the January 2017 Proposed Scoping Plan to reflect AB 398,⁵ including removal of the 20 percent refinery measure.

The 2017 Scoping Plan outlines the strategies the State of California will implement to achieve the 2030 GHG emissions reduction target. The 2017 Scoping Plan includes the Scoping Plan Scenario, which CARB stated “is the best choice to achieve the state’s climate and clean air goals” (CARB 2017). Under the Scoping Plan Scenario, continuation of the Cap-and-Trade regulation (or carbon tax) is expected to cover approximately 34–79 MMTCO₂ of the 2030 reduction obligation (CARB 2017). The short-lived GHG strategy is expected to cover approximately 17–35 MMTCO_{2e}. The Renewables Portfolio Standard with 50 percent renewable electricity by 2030 is expected to cover approximately 3 MMTCO₂. The mobile-source strategy and sustainable freight action plan includes maintaining the existing vehicle GHG emissions standards, increasing the number of zero-emission vehicles, and improving the freight system efficiency, and is expected to cover approximately 11–13 MMTCO₂. Under the Scoping Plan Scenario, CARB expects that the doubling of the energy efficiency savings by 2030 would cover approximately 7–9 MMTCO₂ of the 2030 reduction obligation. The other strategies would be expected to cover the remaining 2030 reduction obligations.

The 2017 Scoping Plan also discusses the role of local governments in meeting the state’s GHG reductions goals because local governments have jurisdiction and land use authority related to: community-scale planning and permitting processes, local codes and actions, outreach and education programs, and municipal operations. Furthermore, local governments may have the ability to incentivize renewable energy, energy efficiency, and water efficiency measures (CARB 2017). The 2017 Scoping Plan encourages local governments to adopt climate action plans to address local GHG emissions sources. A summary of the GHG emissions reductions required under SB 32 is provided in **Table 3.9-3, *Estimated Greenhouse Gas Emissions Reductions Required by SB 32.***

⁵ AB 398 was enacted in 2017 to extend and clarify the role of the State’s Cap-and-Trade Program through December 31, 2030. As part of AB 398, refinements were made to the Cap-and-Trade program to establish updated protocols and allocation of proceeds to reduce GHG emissions.

**TABLE 3.9-3
 ESTIMATED GREENHOUSE GAS EMISSIONS REDUCTIONS REQUIRED BY SB 32**

Emissions Category	GHG Emissions (MMTCO ₂ e)
2017 Scoping Plan Update	
2030 No Action Taken (NAT) Forecast (“Reference Scenario,” which includes 2020 GHG reduction policies and programs)	389
2030 Emissions Target Set by SB 32 (i.e., 40 percent below 1990 Level)	260
Reduction below NAT Necessary to Achieve 40 percent below 1990 Level by 2030	129 (33.2 percent) ^a

NOTES: GHG = greenhouse gas; MMTCO₂e = million metric tons of carbon dioxide equivalent; SB = Senate Bill

a. $389 - 260 = 129 / 389 = 33.2\%$

SOURCE: CARB 2017

Senate Bill 97 (Dutton)

SB 97, enacted in 2007, directed the Governor’s Office of Planning and Research (OPR) to develop CEQA guidelines “for the mitigation of GHG emissions or the effects of GHG emissions.” In December 2009, OPR adopted amendments to the CEQA Guidelines Appendix G Environmental Checklist. These amendments created a new resource section for GHG emissions and suggested criteria that may be used to establish significance of GHG emissions (California Code of Regulations Title 14, Section 15064.4 [14 CCR Section 15064.4]). However, neither a quantitative threshold of significance nor any specific mitigation measures is included. As amended, the CEQA Guidelines require a lead agency to make a good-faith effort, based on scientific and factual data to the extent possible, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. The CEQA Guidelines give discretion to the lead agency to choose whether to: (1) quantify GHG emissions resulting from a project; and/or (2) rely on a qualitative analysis or performance-based standards. Furthermore, the CEQA Guidelines identify three factors to be considered in the evaluation of the significance of GHG emissions:

- (1) The extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting.
- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The administrative record for the CEQA Guidelines amendments also clarifies “that the effects of greenhouse gas emissions are cumulative and should be analyzed in the context of California Environmental Quality Act’s requirements for cumulative impact analysis” (OPR 2009).

Senate Bill 375

The Legislature enacted SB 375 in 2008. SB 375 provides for a planning process to coordinate land use planning and regional transportation plans (RTPs) to help California meet the GHG emissions reductions established in AB 32. SB 375 requires RTPs prepared by metropolitan

planning organizations (MPOs) to incorporate a sustainable communities strategy (SCS) in their RTPs that demonstrates how the region would achieve GHG emission reduction targets set by CARB. Under SB 375, CARB is required, in consultation with the state's MPOs, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. The proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and Low Carbon Fuel Standard regulations.

In 2011, CARB adopted GHG emissions reduction targets for SCAG, the MPO that includes Los Angeles County. In 2018, CARB updated the SB 375 targets to require an 8 percent reduction by 2020 and a 19 percent reduction by 2035 in per-capita passenger vehicle GHG emissions.

Transportation Sector

In response to the transportation sector accounting for a large percentage of California's CO₂ emissions, AB 1493 (Health and Safety Code Sections 42823 and 43018.5) (also referred to as the *Pavley standards*), was enacted on July 22, 2002, and requires CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles whose primary use is noncommercial personal transportation manufactured in and after 2009. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers.

The federal Clean Air Act ordinarily preempts state regulation of motor vehicle emissions standards; however, California is allowed to set its own standards with a federal Clean Air Act waiver from USEPA. In August 2012, USEPA and the U.S. Department of Transportation adopted GHG emissions standards for model year 2017–2025 vehicles, which corresponds to the state's Pavley standards; however, these standards were rescinded and replaced under the federal SAFE Vehicles Rule. As mentioned above, California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020. Also, on January 20, 2021, President Biden signed EO 13990, directing the government to revise fuel economy standards with the goal of further reducing emissions. On April 22, 2021, NHTSA proposed to formally roll back portions of the SAFE Vehicles Rule, thereby restoring California's right to set more stringent fuel efficiency standards.

In January 2007, Governor Brown signed EO S-01-07, which mandates the following actions: (1) establish a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and (2) adopt a Low Carbon Fuel Standard for transportation fuels in California. CARB identified the Low Carbon Fuel Standard as one of the nine discrete early actions in the Climate Change Scoping Plan. In 2018, CARB amended the Low Carbon Fuel Standard to strengthen and smooth the carbon intensity benchmarks through 2030 in line with California's 2030 GHG emissions reduction target enacted through SB 32.

CARB is responsible for the coordination and administration of both federal and state air pollution control programs in California. Some of the regulations and measures that CARB has adopted to reduce particulate matter, nitrogen oxides, and other emissions have the co-benefits of reducing GHG emissions. Regulations and measures include:

- In 2012, CARB approved the Advanced Clean Cars Program (CARB 2021b), which includes low-emission-vehicle regulations that reduce criteria pollutant and GHG emissions from light- and medium-duty vehicles, and the zero-emissions vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles in the 2018–2025 model years. The program aims to reduce smog-forming pollution from passenger vehicles by 75 percent by 2025, with the ultimate goal of total fleet electrification and elimination of tailpipe emissions. CARB is in the process of establishing the next set of low-emission-vehicle and ZEV requirements to contribute to meeting federal ambient air quality ozone standards and California’s carbon neutrality targets (CARB 2021b).
- In 2004, CARB adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling, to reduce public exposure to diesel particulate matter and other toxic air contaminants (13 CCR Section 2485). This measure generally prohibits diesel-fueled commercial vehicle idling for more than five minutes at any given location, with certain exemptions for equipment in which idling is a necessary function, such as concrete trucks.
- In 2008, CARB approved the Truck and Bus regulation to reduce particulate matter and nitrogen oxide emissions from existing diesel vehicles operating in California (13 CCR Section 2025[h]).
- In 2007, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models.

While these regulations primarily target reductions in criteria air pollutant emission, they have the co-benefits of minimizing GHG emissions due to improved engine and fuel efficiencies and reduction of idling times.

Energy Sector

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (24 CCR Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although these standards were not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods.

The Energy Efficiency Standards for Residential and Nonresidential Buildings focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential standards include the introduction of photovoltaic (PV) into the prescriptive package, along with improvements for attics, walls, water heating, and lighting. The most significant efficiency improvements to the nonresidential Standards include alignment with the ASHRAE 90.1 2017 national standards. The 2019 standards also include changes made throughout all of its sections to

improve the clarity, consistency, and readability of the regulatory language. Furthermore, the standards require that enforcement agencies determine compliance with state regulations (24 CCR Part 6) before issuing building permits for any construction (CEC 2019).

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the *California Green Building Standards Code* (CALGreen Code). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.” The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and nonresidential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality (California Building Standards Commission 2019).

The State of California has adopted regulations that establishes the Renewables Portfolio Standard (RPS) to increase the proportion of electricity from renewable sources. On September 10, 2018, Governor Brown signed SB 100, which increased the RPS to require 50 percent renewable resources by December 31, 2026, and 60 percent by December 31, 2030, while requiring retail sellers and local publicly owned electric utilities to meet interim targets of 44 percent of retail sales by December 31, 2024, and 52 percent by December 31, 2027. SB 100 also states that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

Cap-and-Trade Program

The Climate Change Scoping Plan identifies a cap-and-trade program as a key strategy CARB will employ to help California meet its GHG emissions reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050. Pursuant to its authority under AB 32, CARB has designed and adopted the California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed “covered entities”) by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32’s emissions reduction mandate of returning to 1990 levels of emissions by 2020 (17 CCR Sections 95800–96023).

The Cap-and-Trade Program establishes an overall limit for GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 MTCO_{2e} per year) and declines over time, and facilities subject to the cap may trade permits to emit GHGs. The statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emissions reductions throughout the program’s duration (17 CCR Sections 95811 and 9512). On July 17, 2017, the California Legislature enacted AB 398, extending the Cap-and-Trade Program through 2030.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emissions limit will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. In other words, because climate change is a global occurrence and the impacts of GHG emissions are considered cumulative, a focus on aggregate GHG emissions reductions, rather than source-specific reductions, is warranted.

Regional and Local Laws, Regulations, and Policies

South Coast Air Quality Management District

Much of the County is located in the South Coast Air Basin, which consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Gorgonio Pass area in Riverside County. The South Coast Air Quality Management District (SCAQMD) is responsible for air quality planning in the South Coast Air Basin and developing rules and regulations to bring the area into attainment of the ambient air quality standards.

On December 5, 2008, the SCAQMD Governing Board adopted an interim GHG significance threshold of 10,000 MTCO₂e for stationary-source/industrial projects where SCAQMD is the lead agency for purposes of CEQA; however, SCAQMD has not adopted a GHG significance threshold applicable to the Project.

Antelope Valley Air Quality Management District

The Antelope Valley Air Quality Management District (AVAQMD) covers the western portion of the Mojave Desert Air Basin and has jurisdiction over the northern, desert portion of Los Angeles County, including the incorporated cities of Lancaster and Palmdale, Air Force Plant 42, and the southern portion of Edwards Air Force Base (AVAQMD 2016). AVAQMD operates monitoring stations in the Antelope Valley, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections.

AVAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the Antelope Valley region of the Mojave Desert Air Basin. AVAQMD has not adopted a GHG significance threshold applicable to the Project.

Southern California Association of Governments

On September 3, 2020, SCAG's Regional Council formally adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy, also known as Connect SoCal, which is an update to the previous 2016–2040 RTP/SCS (SCAG 2020b). Using growth forecasts and economic trends, both the 2016–2040 RTP/SCS and the 2020–2045 RTP/SCS provide a vision for transportation throughout the region for the next several decades by considering the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The 2020–2045 RTP/SCS describes how the region can attain the GHG emissions reduction targets set by CARB

by achieving reductions in per-capita transportation GHG emissions of 8 percent by 2020 and 19 percent by 2035, compared to the 2005 level (SCAG 2020b). Compliance with and implementation of the 2020–2045 RTP/SCS policies and strategies would have the co-benefits of reducing per-capita criteria air pollutant emissions (e.g., nitrogen dioxide, carbon monoxide) associated with reduced per-capita vehicle miles traveled.

The 2020–2045 RTP/SCS states that the SCAG region was home to approximately 18.8 million people in 2016 and included approximately 6.0 million homes and 8.4 million jobs (SCAG 2020b). By 2045, the integrated growth forecast projects that these figures will increase by 3.7 million people, with approximately 1.6 million more homes and 1.7 million more jobs. *High quality transit areas* (HQTAs), defined by the 2020–2045 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours, will account for 2.4 percent of regional total land, but are projected to accommodate 51 percent and 60 percent of future household growth, respectively, between 2016 and 2045 (SCAG 2020b). As in the 2016–2040 RTP/SCS, the 2020–2045 RTP/SCS’s overall land use pattern reinforces the trend of focusing new housing and employment in the region’s HQTAs. HQTAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life-cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.

SCAG’s 2020–2045 RTP/SCS provides specific strategies for implementation. These strategies include supporting projects that encourage a diverse job opportunities for a variety of skills and education, recreation, and cultures and a full range of shopping, entertainment, and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a “Complete Streets” policy that meets the needs of all users of the streets, roads, and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative-fueled vehicles (SCAG 2020b).

In addition, the 2020–2045 RTP/SCS includes strategies to promote active transportation, support local planning and projects that serve short trips, and promote transportation investments, investments in active transportation, and more walkable and bikeable communities, that will result in improved air quality and public health and reduced greenhouse gas emissions, and that supports building physical infrastructure, regional greenways, and first-last mile connections to transit, including to light rail and bus stations. The 2020–2045 RTP/SCS aligns active transportation investments with land use and transportation strategies, to increase the competitiveness of local agencies for federal and state funding, and to expand the potential for all people to use active transportation. CARB has accepted SCAG’s GHG emissions quantification determinations as presented in the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS, and both demonstrate achievement of the GHG emissions reduction targets established by CARB (CARB 2016b; SCAG 2020b).

Although no GHG emissions reduction targets for passenger vehicles have been set by CARB for 2045, the 2020–2045 RTP/SCS GHG emissions reduction trajectory shows that more aggressive GHG emissions reductions are projected for 2045. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an additional 4.1 percent reduction in GHG emissions from transportation-related sources in the 10 years between 2035 and 2045, the 2020–2045 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the state’s GHG emissions reduction goals (SCAG 2020b).

Los Angeles County Green Building Standards

In April 2016, LA County amended the LA County Code to include Title 31, Green Building Standards Code. The Green Building Standards Code incorporates by reference standards from the CALGreen Code described above, and supersedes the green building ordinance and the drought-tolerant landscaping ordinance in Title 22 of the LA County Code. The Green Building Standards Code includes mandatory residential and nonresidential measures related to low impact development, electric vehicle charging infrastructure, cool roof installations, and construction waste management practices (LA County Code Title 31, Chapters 4 and 5).

Los Angeles County General Plan 2035

Adopted on October 6, 2015, the General Plan’s Air Quality Element outlines goals and policies that would reduce GHG emissions and address the impacts of climate change. Approval of the Draft 2045 CAP would result in updates to the General Plan as shown in Table 2-1, *Updates to the Los Angeles County General Plan 2035 Air Quality Element*, and Table 2-2, *Updates to the Los Angeles County General Plan 2035 Implementation Program*, in Chapter 2, *Project Description*. In addition, the General Plan contains policies that encourage water conservation and protection, traffic reduction, sustainable development, and waste minimization that would further reduce GHG emissions (County of Los Angeles 2015).

Unincorporated Los Angeles County Community Climate Action Plan 2020

The *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP), adopted in 2015, was a component of the General Plan’s Air Quality Element with a horizon year of 2020. To reduce impacts of climate change, the 2020 CCAP set a target to reduce GHG emissions from community activities in the unincorporated areas of Los Angeles County by at least 11 percent below 2010 levels by 2020 (County Planning 2015). The 2020 CCAP contained 26 local actions related to green buildings and energy; land use and transportation; water conservation and wastewater; waste reduction, reuse, and recycling; and land conservation and tree planting. The following actions inform the measures and actions outlined within the Draft 2045 CAP:

BE-1: Green Building Development. Encouraged energy reductions in new development.

BE-6: Energy Efficient Retrofits of Wastewater Equipment. Promoted efficient treatment equipment.

LUT-6: Land Use Design and Density. Promoted sustainability in land use design.

LUT-9: Idling Reduction Goal. Limited idling time for heavy-duty construction equipment.

LUT-12: Electrify Construction and Landscaping Equipment. Established electrification goals for equipment.

WAW-1: Per Capita Water Use Reduction Goal. Reduced per capita water consumption; goals range from 5 to 20 percent below baseline values.

WAW-2: Recycled Water, Water Supply Improvement Programs, and Stormwater Runoff. Encouraged use of recycled and grey water.

The 2020 CCAP included 17 reduction strategies from the following areas: transportation; stationary energy; waste; industrial process and product use; and agriculture, forestry, and other land use.

OurCounty: Los Angeles Countywide Sustainability Plan

In August 2019, LA County adopted the OurCounty Sustainability Plan, which contains 12 cross-cutting goals and identifies entities and partners that will work to bring to achieve the goals. To achieve the goals, LA County has identified 37 strategies and 159 actions (LACSO 2019). The following goals and actions may apply to the Draft 2045 CAP:

Goal 1: Resilient and healthy community environments where residents thrive in place.

Action 12: Complete development and start implementation of the Green Zones Program.

Goal 2: Buildings and infrastructure that support human health and resilience.

Action 28A: Conduct a Countywide climate vulnerability assessment that addresses social vulnerability and use it to guide priorities for investments in public health preparedness, emergency preparedness and response planning, and community resiliency.

Action 28B: Conduct a Countywide climate vulnerability assessment that addresses physical infrastructure vulnerability and use it to guide priorities for investments in building upgrades, infrastructure improvements, and zoning and code changes.

Action 31: Adopt CALGreen Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments.

Action 34: Invest in multi-benefit water management solutions that diversify and increase reliability of the water supply, reduce dependency on imported water, prioritize solutions that mimic natural systems, and maximize benefits to Native and disadvantaged communities.

Action 35: Develop a local water supply plan.

Action 37: Support efforts to maximize sustainable yield from local groundwater basins.

Action 38: Support efforts to clean up contaminated aquifers.

Action 40: Reduce barriers and increase accessibility to alternative water sources (rainwater, greywater, stormwater, and recycled water), including incentives for residential and commercial/small business greywater systems and streamlining permitting pathways.

Action 41: Advocate for a collaborative approach to partnering with the region's various groundwater managers to sustainably manage regional groundwater basins.

Goal 7: A fossil fuel-free LA County.

Action 85: Collaborate with the City of Los Angeles, Santa Monica, and other members of the Building Decarbonization Coalition to develop building energy and emissions performance standards that put the County on a path towards building decarbonization.

Goal 9: Sustainable production and consumption of resources.

Action 113: Develop a County-specific implementation plan for state water conservation targets that balances water supply goals with other critical OurCounty goals such as supporting conservation and expanding the urban forest.

Action 115: Adapt building code changes that improve water efficiency and reduce indoor and outdoor water use above current CALGreen standards.

Action 123: Increase the diversion requirements of the County's Construction and Demolition debris ordinance, encourage the use of recycled content materials in construction projects, and incentivize use of recycled materials in public arts projects funded or commissioned by the County.

The plan is intended to help guide decision-making in unincorporated County areas and to provide a model for decision-making in the 88 incorporated cities in the County. As a strategic plan, the OurCounty Sustainability Plan does not supersede land use plans that have been adopted by the Board of Supervisors, including the Los Angeles County General Plan.

3.9.2 Impact Analysis

3.9.2.1 Significance Criteria

Consistent with the CEQA Guidelines Appendix G Environmental Checklist and LA County practice, a project would have a significant adverse environmental impact if it would:

- a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

CEQA Guidelines Section 15064.4 assists lead agencies in determining the significance of the impacts of GHG emissions, and gives them discretion to determine whether to assess emissions quantitatively or qualitatively. If a qualitative and quantification-based approach is used, then Section 15064.4 recommends qualitative factors that may be used in the determination of significance. These factors include the extent to which the project may increase or reduce GHG emissions compared to the existing environment, whether the project exceeds an applicable significance threshold, and the extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs. CEQA Guidelines Section 15064.4 does not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including by looking to thresholds developed by other public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association, so long as any threshold chosen is supported by substantial evidence (CEQA Guidelines Section 15064.7[c]). The California Natural Resources

Agency also has clarified that the CEQA Guidelines focus on the impacts of GHG emissions as cumulative impacts, and that they should be analyzed in the context of CEQA’s requirements for cumulative impact analysis (CNRA 2009; see also CEQA Guidelines Section 15064[h]).

Although GHG emissions can be quantified, CARB, SCAQMD, and LA County have not adopted quantitative project-level significance thresholds for GHG emissions that apply to the Project. OPR released a technical advisory on CEQA and climate change that provided some guidance on assessing the significance of GHG emissions, and states that “lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice,” and that while “climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment” (OPR 2008). Furthermore, the technical advisory states that “CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project” (OPR 2008).

3.9.2.2 Methodology

This analysis evaluates the considerations identified in CEQA Guidelines Appendix G and identified by LA County (see Section 3.9.2.1, *Significance Criteria*) to determine whether the Draft 2045 CAP, including future projects facilitated by the Draft 2045 CAP’s measures and actions, would result in GHG emissions that would have a significant impact on the environment or conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The latter evaluation of GHG emissions impacts was based on a review of plans, policies, and regulations and a determination of their applicability to the Project. Impacts related to GHG emissions are analyzed both quantitatively and qualitatively.

Greenhouse Gas Emissions

The Draft 2045 CAP is a planning-level policy document and does not include quantification of GHG emissions from any specific projects that may be facilitated by the Draft 2045 CAP. However, the analysis does include a 2015 baseline GHG inventory, a 2018 GHG inventory update, and projections of 2030, 2035, and 2045 emissions. LA County utilized the 2015 baseline GHG inventory based on the data available as the inventory was prepared for the OurCounty Sustainability Plan.

The analysis considers both a business-as-usual (BAU) scenario and an adjusted BAU scenario. The BAU scenario is an emissions forecast out to the year 2045 that indicates how community emissions would increase in the absence of state regulations (e.g., renewable energy and vehicle fuel efficiency standards) and without any additional actions by LA County to reduce emissions. This accounts for the growth in population, housing, and employment expected for the County through the year 2045. The “adjusted BAU” scenario accounts for the expected impacts of foreseeable federal, state, and regional actions, based on the latest information from CARB and the 2017 Scoping Plan. State measures include the Pavley vehicle standards, the Mobile Source Strategy, Advanced Clean Cars, and Title 24 Building Energy Standards updates, among others. See Section 3.9.1.3, *Regulatory Setting*, for details.

As shown in **Table 3.9-4, Unincorporated County Greenhouse Gas Inventory and Forecasts**, the Draft 2045 CAP estimates Los Angeles County’s baseline GHG emissions in the year 2015 to be approximately 5.5 MMTCO_{2e}. In 2018, emissions declined to 5.17 MMTCO_{2e}. The Draft 2045 CAP estimates that the unincorporated County’s unmitigated (i.e., BAU) emissions would reach 5.24 MMTCO_{2e} by 2030, 5.32 MMTCO_{2e} by 2035, and 5.52 MMTCO_{2e} by 2045.

**TABLE 3.9-4
 UNINCORPORATED COUNTY GREENHOUSE GAS INVENTORY AND FORECASTS**

Emissions Sector	Emissions (MTCO _{2e})										
	Backcast		Inventory			BAU Forecasts			Adjusted BAU Forecasts		
	1990	2005	2010	2015	2018	2030	2035	2045	2030	2035	2045
Stationary Energy	2,226,141	2,281,680	2,146,743	1,908,637	1,698,809	1,681,160	1,721,212	1,820,612	1,502,306	1,341,401	1,018,793
Transportation	3,450,566	3,066,417	3,015,442	2,838,133	2,704,685	2,784,518	2,815,094	2,876,247	2,205,885	2,080,234	1,993,281
Waste	511,965	542,292	564,503	469,997	469,382	451,919	454,097	482,489	451,919	454,097	482,489
IPPU	173,534	183,832	243,456	253,529	239,505	259,605	267,981	284,731	259,605	267,981	284,731
AFOLU	25,048	25,048	60,860	60,860	60,860	60,860	60,860	60,860	60,860	60,860	60,860
Total	6,387,254	6,099,269	6,031,003	5,531,155	5,173,240	5,238,062	5,319,243	5,524,939	4,480,574	4,204,572	3,840,154

NOTES:

AFOLU = agriculture, forestry, and other land use; BAU = business-as-usual; IPPU = industrial processes and product use; MTCO_{2e} = metric tons of carbon dioxide equivalent

To monitor emissions reduction between 2010 and 2015/2018 and to ensure consistency with previous LA County commitments (dating back to 1990), the Global Protocol for Community-scale GHG Emission Inventories was used to develop a backcasting model for unincorporated County emissions. Greenhouse gas emissions from each sector and subsector were scaled from 2015 to 1990 by using LA County and state parameters and data sets.

SOURCE: Draft 2045 CAP Appendices A and B.

Quantified emissions resulting from implementation of state actions designed to reduce emissions from energy use are referred to as the adjusted BAU scenario and include: California’s RPS, which establishes the goal to procure 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030; utility energy efficiency programs directed by the California Public Utilities Commission; AB 1103 (which established the Commercial Energy Use Disclosure Requirement); and solar programs offered by the state. State actions that reduce emissions from transportation include California’s Pavley I and CAFE standards, the Low Carbon Fuel Standard, electric vehicle policies and programs, and CARB’s Tire Pressure Program and Heavy Duty Vehicle Aerodynamics Program. The Draft 2045 CAP also includes reductions from improved transportation and land use planning that result from SCAG’s RTP/SCS, as required by SB 375. Table 3.9-4 summarizes the backcast,⁶ inventory, BAU, and adjusted BAU emissions.

The analysis then considers the reductions and actions implemented under the Draft 2045 CAP and subtracts the emissions reductions from the unincorporated County’s adjusted BAU emissions to show the estimated level of emissions with implementation of the Draft 2045 CAP measures and

⁶ To monitor emissions reductions between 2010 and 2015/2018 and to ensure consistency with previous County commitments (dating back to 1990), the Global Protocol for Community-scale GHG Emission Inventories was used to develop a backcasting model for unincorporated County emissions. GHG emissions from each sector and subsector were scaled from 2015 to 1990 by using County and state parameters and datasets.

actions. The unincorporated County’s emissions with Draft 2045 CAP implementation are compared to the OurCounty Plan target of 40 percent below 2015 levels by 2030, which aligns with the statewide 2030 target as codified in SB 32 and the 2017 Scoping Plan, as well as to the 2035 target and 2045 aspirational goal. The Draft 2045 CAP’s aspirational goal of carbon neutrality by 2045 also is consistent with EO B-55-20, while the 2035 target puts Los Angeles County on a trend to achieve its 2045 aspirational goal of carbon neutrality.

Calculation details, assumptions, and tables related to the 2015 baseline GHG inventory, 2018 GHG inventory update, projections of 2030, 2035, and 2045 emissions, and Draft 2045 CAP measures and actions are provided in Appendix A, *GHG Accounting and Projections*, and Appendix B, *GHG Quantification Methods*, of the Draft 2045 CAP. For ease in reference, this information is also provided in Draft EIR Appendix D, *Greenhouse Gas Emissions*.

Plans, Policies, and Regulations

GHG impacts are evaluated by assessing whether the Draft 2045 CAP conflicts with applicable GHG emissions reduction strategies and local actions approved or adopted by CARB, SCAG, and LA County. The 2017 Scoping Plan, SCAG’s 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, and General Plan policies and goals all apply to the Project and all are intended to reduce GHG emissions to meet the statewide targets set forth in AB 32, as amended by SB 32. Thus, the significance of the Draft 2045 CAP’s GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Draft 2045 CAP would conflict with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions, including CARB’s 2017 Climate Change Scoping Plan, SB 37 and EO S-3-05, SCAG’s 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, and the CALGreen Code and LA County Green Building Codes.

3.9.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and many implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG emission reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar PV projects and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the impacts of implementing these measures that could result, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of GHG emissions-related impacts. These and other

relevant measures and actions include: Measure ES1: Develop a Sunset Strategy for All Oil and Gas Operations (which would develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities and develop a strategy for carbon removal); Measure ES2: Procure Zero-Carbon Electricity (which would supply the County's power demand with zero-carbon electricity); Measure ES3: Increase Renewable Energy Production (which would expand local solar power generation on existing and new development and for LA County projects); Measure ES4: Increase Energy Resilience (which would expand energy storage and microgrids throughout the community and for LA County operations); Measure ES5: Establish GHG Requirements for New Development (which would result requirements to ensure that new development is consistent with the 2045 CAP goals as well as its milestone targets for 2030 and 2035 and long-term aspirational goal for 2045); Measure T1: Increase Density Near High-Quality Transit Areas (which would increase housing opportunities that are affordable and near transit to reduce vehicle miles traveled [VMT]); Measure T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use (which would increase density and the mix of land uses can help reduce single-occupancy trips, the number of trips, and trip lengths); Measure T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips (which would expand travel options that serve a variety of land uses and trip purposes to help shift some trips away from single-occupancy vehicles); Measure T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation (which would increase transit service, micro mobility services, and access to these transportation options to help reduce VMT); Measure T5: Limit and Remove Parking Minimums (which would address parking strategies to help reduce VMT); Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales (which would increase the County's ZEV market share and vehicle penetration to the maximum extent feasible and set targets for reducing total gasoline and diesel vehicle fuel sales); Measure T7: Electrify LA County Fleet Vehicles (which would electrify the LA County bus, shuttle, and light-duty vehicle fleet and shuttles); Measure T8: Accelerate Freight Decarbonization (which would incentivize and implement freight decarbonization technologies, specifically focusing on charging infrastructure); Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment (which would prohibit the use of gas- and diesel-powered small (≤ 25 horsepower) off-road equipment and encourage the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment); Measure E1: Transition Existing Buildings to All-Electric (which aims to electrify existing buildings); Measure E2: Standardize All-Electric New Development (which aims to electrify all new buildings); Measure E3: Other Decarbonization Actions (which would reduce the life-cycle carbon intensity of building materials and phase out the use of high-GWP refrigerants); Measure E4: Improve Energy Efficiency of Existing Buildings (which would retrofit existing building stock to reduce overall County energy use); Measure E5: Increase Use of Recycled Water and Gray Water Systems (which would increase the use of alternative water sources and reduce the demand for water sources with higher energy and carbon intensities); Measure E6: Reduce Indoor and Outdoor Water Consumption (which would reduce indoor and outdoor water consumption); Measure W1: Institutionalize Sustainable Waste Systems and Practices (which would result in sustainable waste systems); Measure W2: Increase Organic Waste Diversion (which would provide services for diverting yard waste, food scraps, and compostable paper from landfills to beneficial uses, including compost, food rescue, and energy production); Measure A1: Conserve Agricultural and Working Lands, Forest Lands, and Wildlands (which would preserve, conserve,

and restore agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County); Measure A2: Support Regenerative Agriculture (which would promote agricultural practices that sequester carbon and restore soil quality, biodiversity, ecosystems health, and water quality); and Measure A3: Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces (which would create an Urban Forest Management Plan to plant trees, increase the unincorporated County's tree canopy cover, add green space, and convert impervious surfaces). Specific GHG emissions-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact 3.9-1: The Draft 2045 CAP would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. (*Less-than-Significant Impact*)

Pursuant to the criteria established by CEQA Guidelines Section 15183.5, the Draft 2045 CAP includes a 2015 baseline GHG emissions inventory, a 2018 GHG emissions inventory update, and projections of 2030, 2035, and 2045 emissions. GHG emissions for these years include emissions associated with all activities occurring within the boundaries of the unincorporated County. The inventories and forecasts were prepared pursuant to the Global Protocol for Community-scale GHG Emission Inventories. This information is contained in Appendix D, *Greenhouse Gas Emissions*. Further, the Draft 2045 CAP identifies a GHG emissions reductions target for the year 2030 that is equivalent to 40 percent below baseline 2015 levels, as well as a 2035 target and a 2045 aspirational goal. The 2030 target is equivalent to 48 percent below 1990 levels within the unincorporated County. Compared to the statewide target of 40 percent below 1990 levels by 2030 pursuant to SB 32, the Draft 2045 CAP's 2030 target is more stringent than the statewide target.

Implementation of several of the Draft 2045 CAP measures and actions that relate to new or remodeled construction of projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated County could result in short-term, construction-related GHG emissions. Several Draft 2045 CAP measures and actions could facilitate projects that generate short-term construction GHG emissions, but would not result in increased emissions associated with operation authorized by the Draft 2045 CAP measure or action. Several other Draft 2045 CAP measures and actions could facilitate projects that involve minor construction activities, such as energy and water efficiency upgrades to existing buildings that are not expected to result in substantial construction-related GHG emissions. The Draft 2045 CAP measures that are likely to result in construction-related GHG emissions include Measures ES2, ES3, ES4, T1, T2, T3, T4, T6, T8, E1, E2, E5, W1, and W2. These measures may result in relatively small-scale, localized, and short-duration construction activities.

Construction activities typically emit GHGs from combustion of fossil fuels in diesel and gasoline-powered equipment and vehicles and from the use of electricity that is generated partially from sources that emit GHGs. Because projects facilitated by these Draft 2045 CAP measures and

actions would be limited in extent and duration, they would emit relatively small amounts of GHGs. In addition, the Draft 2045 CAP quantifies GHG emissions from off-road construction activity at the County level; these emissions are considered in the 2045 CAP's ability to achieve the 2030 and 2035 targets. The 2045 CAP Checklist (CAP Appendix F) also requires electric and zero-emission construction equipment during project construction to the maximum extent feasible to align with Measure T9. Furthermore, each of these proposed measures and actions is expected to result in long-term, substantial reductions in GHG emissions by (for example) reducing energy use and water use, facilitating use of nonpolluting modes of transportation, reducing vehicle trips, and converting municipal vehicles to low-emission or zero-emission models. Therefore, these Draft 2045 CAP measures and actions would reduce GHG emissions overall, and therefore would not make a considerable contribution to the cumulative impact of GHG emissions.

Implementation of projects facilitated by Draft 2045 CAP actions could result in both construction-related and operational GHG emissions. These include Measures ES2, ES3, T1, E5, W1, and W2. Projects facilitated by several of these measures could result in relatively large construction projects, such as development of large utility-scale solar energy facilities in the Antelope Valley under Measures ES2 and ES3; infill development and redevelopment within High-Quality Transit Areas facilitated by Measure T1; and new or expanded wastewater and solid waste processing facilities under Measures W1 and W2. However, as indicated in the discussion of expected GHG emissions reductions from implementation of the Draft 2045 CAP, these measures would also result in substantial long-term reductions in GHG emissions. Therefore, they would not make a considerable contribution to cumulative GHG emissions.

The Draft 2045 CAP's 2030 target was selected based on guidance provided in the 2017 Scoping Plan and was developed to demonstrate consistency with the statewide 2030 target. The Draft 2045 CAP's 2030 target is established based on a reduction from 2015 baseline levels and is equal to 40 percent below 2015 emissions (3.3 MMTCO_{2e}). This compares to the unincorporated County's 2030 BAU forecast of 5.2 MMTCO_{2e} and adjusted BAU forecast of 4.5 MMTCO_{2e}. A 40 percent reduction below 2015 levels is also equivalent to a 48 percent reduction below the unincorporated County's 1990 GHG emissions levels, which is more stringent than the state target of a 40 percent reduction below 1990 levels by 2030. **Table 3.9-5, 2030 Greenhouse Gas Emissions Targets for the State and the Draft 2045 Climate Action Plan**, compares the Draft 2045 CAP's 2030 emissions and 2030 target with the state's 2030 target on a total emissions, emissions per capita, and emissions per service population basis.⁷

The Draft 2045 CAP's 2030 target of 40 percent below 2015 levels aligns with the statewide 2030 target as codified in SB 32 and reflected in the 2017 Scoping Plan. This is because LA County's 2030 target of 40 percent below 2015 levels is equivalent to a 48 percent reduction below 1990 levels, which exceeds the state's target of 40 percent below 1990 levels. The County's emissions in 2015 are estimated to be 13 percent lower than 1990 emissions; this compares to statewide emissions, which were 2.3 percent higher in 2015 than in 1990 (CARB 2014b, 2021a). Consequently, the Draft 2045 CAP is more stringent than the state target when compared to 1990 levels and also when compared to per-capita or per-service-population emissions levels.

⁷ *Service population* is the sum of population and employment.

**TABLE 3.9-5
 2030 GREENHOUSE GAS EMISSIONS TARGETS FOR THE STATE AND THE DRAFT 2045 CLIMATE ACTION PLAN**

Category	Total Emissions	Socioeconomic Data			GHG Emissions (MTCO _{2e})	
		Population	Employment	Service Population	Emissions per Capita	Emissions Per Service Population
1990 Emissions (Backcast)	6,387,254	970,194	N/A	N/A	6.6	-
2015 Baseline Emissions	5,531,155	1,058,871	255,287	1,314,158	5.2	4.2
2030 BAU Forecast	5,238,062	1,173,204	286,913	1,460,117	4.5	3.6
2030 Adjusted BAU Forecast	4,480,574	1,173,204	286,913	1,460,117	3.8	3.1
Draft 2045 CAP 2030 Target (40% below 2015 baseline = 48% below 1990 emissions)	3,318,693	1,173,204	286,913	1,460,117	2.8	2.3
State 2030 Target	258,600,000	41,860,549	18,986,000	60,846,549	6.2	4.3
Equivalent State 2030 Target for County (40% below County's 1990 emissions)	3,832,352	1,173,204	286,913	1,460,117	3.3	2.6
Draft 2045 CAP Implementation in 2030	2,950,175	1,173,204	286,913	1,460,117	2.5	2.0

NOTES:

BAU = business as usual; Draft 2045 CAP = *Los Angeles County Draft 2045 Climate Action Plan*; GHG = greenhouse gas; MTCO_{2e} = metric tons of carbon dioxide equivalent; N/A = not applicable

SOURCE: Draft EIR Appendix D, *Greenhouse Gas Emissions*; LA County Draft 2045 CAP, 2021

The Draft 2045 CAP’s 2035 target of 50 percent below 2015 levels (equivalent to 56 percent below 1990 levels) is consistent with the OurCounty Sustainability Plan’s target and puts the County on the trajectory to achieve carbon neutrality by 2045, consistent with State targets.

Implementation of the Draft 2045 CAP also would result in an overall decrease in GHG emissions Countywide compared to both the 2015 baseline and the BAU forecasts. **Table 3.9-6, *Greenhouse Gas Emissions from Climate Action Plan Implementation and Comparison to Existing and Future Baselines***, compares the baseline 2015 emissions and 2030, 2035, and 2045 BAU emissions to the emissions estimated with implementation of the Draft 2045 CAP. Strategies, measures, and actions in the Draft 2045 CAP would be implemented in addition to state legislation.

As described above, construction and operations associated with projects facilitated by Draft 2045 CAP measures and actions, such as large-scale solar energy facilities in the Antelope Valley, would result in GHG emissions, but these emissions would be more than offset by the long-term reductions in GHG emissions that the Draft 2045 CAP measures and actions would enable. Under the Draft 2045 CAP, mass GHG emissions would be lower than the 2015 baseline and also lower than the forecasts for 2030, 2035, and 2045 (i.e., future baselines). Further, the emissions reductions from the Draft 2045 CAP would be less than the state’s target emissions of 40 percent below 1990 levels by 2030 on a total-emissions, emissions-per-capita, and emissions-per-service-population basis. Therefore, GHG emissions associated with implementation of projects facilitated by Draft 2045 CAP measures and actions would not make a considerable contribution to cumulative GHG emissions, and the impact would be less than significant.

**TABLE 3.9-6
 GREENHOUSE GAS EMISSIONS FROM CLIMATE ACTION PLAN IMPLEMENTATION
 AND COMPARISON TO EXISTING AND FUTURE BASELINES**

Emissions Sector	Emissions (MTCO ₂ e)			
	2015	2030	2035	2045
BAU Emissions	5,531,155	5,238,062	5,319,243	5,524,939
Draft 2045 CAP Implementation Emissions	-	2,950,175	2,271,490	1,252,812
<i>Total Emission Reductions from Draft 2045 CAP</i>	-	-1,530,400	-1,933,083	-2,587,342

NOTES:
 BAU = business-as-usual; Draft 2045 CAP = Los Angeles County Draft 2045 Climate Action Plan; MTCO₂e = metric tons of carbon dioxide equivalent
 SOURCE: Draft EIR Appendix D, *Greenhouse Gas Emissions*

Mitigation: None required.

Criterion b) Whether the Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Impact 3.9-2: The Draft 2045 CAP would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. (*Less-than-Significant Impact*)

CARB 2017 Scoping Plan, SB 32, and Executive Order S-3-05

The CARB 2017 Scoping Plan states that it “outlines a path to achieve the SB 32 target that requires less reliance on fossil fuels and increased investment in low carbon fuels and clean energy technologies” (CARB 2017). The CARB 2017 Scoping Plan also illustrates in Figure 5 that achieving the 2030 target is consistent with progress toward achieving the 2050 level included in EO S-3-05, and that depending on the success in achieving the 2030 target, it may be possible to achieve the 2050 target earlier than EO S-3-05 (CARB 2017). The Draft 2045 CAP is designed to be consistent with the reduction measures and recommendations contained in CARB’s 2017 Scoping Plan. The Pavley Program, Renewable Portfolio Standard, Low Carbon Fuel Standard, SB 375 land use and transportation strategies, energy efficiency measures, solar PV measures, vehicle and fuel efficiency measures, landfill methane capture, and urban forestry practices are all measures in the 2017 Scoping Plan that are also included in the Draft 2045 CAP.

Consistent with SB 32, the Draft 2045 CAP sets a GHG emissions target for 2030 equivalent to 40 percent below the County’s 2015 baseline emissions, which is approximately 3.9 MMTCO₂e. This is also equivalent to a 46 percent reduction below Countywide 1990 emissions. The Draft 2045 CAP sets a 2035 target equivalent to 50 percent below the 2015 baseline, which is approximately 3.3 MMTCO₂e. The Draft 2045 CAP also sets an aspirational goal of carbon neutrality by 2045.

As shown in **Table 3.9-7, *Estimated Greenhouse Gas Emissions Reductions of Draft 2045 Climate Action Plan Strategies***, implementation of the Draft 2045 CAP would enable LA County to exceed its reduction target by more than 370,000 MTCO_{2e} in 2030 and by more than 490,000 MTCO_{2e} in 2035. Los Angeles County would make progress toward, but not reach, its aspirational goal of carbon neutrality by 2045. Implementation of the Draft 2045 CAP would result in an emissions reduction of approximately 2.6 MMTCO_{2e} by 2045. Carbon neutrality by 2045 is an aspirational goal in the Draft 2045 CAP and is not a significance threshold for this EIR because carbon neutrality is not an adopted plan, policy, or regulation of the state that is applicable to the County.

**TABLE 3.9-7
 ESTIMATED GREENHOUSE GAS EMISSIONS REDUCTIONS OF DRAFT 2045 CLIMATE ACTION PLAN STRATEGIES**

Category	GHG Reductions (MTCO _{2e})		
	2030	2035	2045
2015 Baseline Emissions	5,531,155	5,531,155	5,531,155
BAU Emissions	5,238,062	5,319,243	5,524,939
Adjusted BAU Emissions	4,480,574	4,204,572	3,840,154
Total Emission Reductions from Draft 2045 CAP	-1,530,400	-1,933,083	-2,587,342
County Emissions with Draft 2045 CAP	2,950,175	2,271,490	1,252,812
Target Emissions Level (Aspirational Goal for 2045)	3,318,693	2,765,578	0
Gap to Target or Goal	+368,519	+494,088	-1,252,812
Emission Reductions Needed	None	None	1,252,812

NOTES:

BAU = business-as-usual; Draft 2045 CAP = *Los Angeles County Draft 2045 Climate Action Plan*; GHG = greenhouse gas; MTCO_{2e} = metric tons of carbon dioxide equivalent

SOURCE: Draft EIR Appendix D, *Greenhouse Gas Emissions*

The Draft 2045 CAP would meet the GHG emissions reduction targets for 2030 and 2035, which align with and exceed the adopted targets for the 2017 Scoping Plan. Thus, the Draft 2045 CAP does not conflict with achieving the SB 32 target or with making progress toward achieving the 2050 reductions included in EO S-3-05.⁸ The Draft 2045 CAP makes progress toward carbon neutrality; however, its inability to achieve carbon neutrality by 2045 does not conflict with the 2017 Scoping Plan, and thus does not render the impact significant under CEQA.

As outlined in Draft EIR Chapter 2, *Project Description*, and in Draft 2045 CAP Chapter 4, *Implementation*, LA County would implement a monitoring plan to ensure that the strategies in the

⁸ In *Cleveland National Forest Foundation, et al v. San Diego Association of Governments* (2017) 3 Cal. 5th 497, the California Supreme Court upheld the San Diego Association of Governments' (SANDAG's) EIR in its approach of not determining project impacts for 2050 based on the EO No. S-3-05 goal for 2050, noting that "the [EO S3-05] lacks the force of a legal mandate binding on SANDAG in the preparation of its EIR" and that the EIR was not required to "explicitly engage in an analysis of the consistency of projected 2050 emissions" with EO S-3-05. Therefore, determining impact significance based on the Project's consistency with EO S-3-05 2050 emission reductions is not required under CEQA.

Draft 2045 CAP achieve the anticipated GHG reductions. Further, LA County has developed the Draft 2045 CAP Consistency Checklist to assist with determining project consistency with the Draft 2045 CAP. The Draft 2045 CAP Consistency Checklist provides individual projects the opportunity to demonstrate that they are reducing GHG emissions; it also helps ensure that projects facilitated by the Draft 2045 CAP would achieve their proportion of emissions reductions consistent with the assumptions of the Draft 2045 CAP.

Southern California Association of Governments 2020–2045 RTP/SCS

The Draft 2045 CAP incorporates several key strategies, including increasing density near high-quality transit areas (HQTAs) in Los Angeles County, to align with the goals of SCAG’s 2020–2045 RTP/SCS. The Draft 2045 CAP includes measures that incentivize development near high-quality transit or similar mechanisms for land uses near transit. Part of the Draft 2045 CAP’s effort to incentivize development near transit includes requiring the development of a specific number of units in HQTAs, increasing housing density, and developing pedestrian and bike networks connecting HQTAs and thus reducing vehicle miles traveled. In addition, LA County’s transportation demand management (TDM) policies include strategies that encourage changes in travel behavior and discourage single-occupant vehicles. TDM policies include congestion management pricing, employer-based transit passes, or increased transit availability; regional carpooling programs; and parking management. The Draft 2045 CAP would implement similar measures, including Measure T4, which would include a TDM ordinance, bus-only lanes, and signal prioritization; offer free transit passes for students, youth, seniors, disabled, and low-income populations; and establish car-free areas.

The 2020–2045 RTP/SCS includes targets that comply with emissions reduction targets established by CARB and meet the requirements of SB 375. The 2035 reduction target is 19 percent below 2005 per-capita passenger vehicle emissions levels by 2035 (SCAG 2020b). **Table 3.9-8, *Unincorporated County per Capita Passenger Vehicle Emissions Comparison***, shows the unincorporated County’s population and backcast passenger vehicle emissions in 2005 compared to the estimated 2035 population and passenger vehicle emissions with implementation of the Draft 2045 CAP.

**TABLE 3.9-8
 UNINCORPORATED COUNTY PER CAPITA PASSENGER VEHICLE EMISSIONS COMPARISON**

Year	2005	2035
Population	1,055,539	1,211,053
Passenger Vehicle Emissions (MTCO ₂ e)	2,779,817	916,218
Per Capita Emissions (MTCO ₂ e/person)	2.6	0.8
Percent Reduction from 2005 Levels	-	71%
2035 Target Percent Reduction	-	19%

NOTES: MTCO₂e = metric tons of carbon dioxide equivalent

The emissions comparison is between backcast 2005 BAU emissions and 2035 emissions with Draft 2045 CAP strategies and measures implemented, namely Measure T6.

SOURCE: Draft EIR Appendix D, *Greenhouse Gas Emissions*; SCAG 2020b

As shown in Table 3.9-8, the passenger vehicle per-capita emissions under the Draft 2045 CAP would decrease by 71 percent from 2005 levels and would exceed the 19 percent reduction target set by the 2020–2045 RTP/SCS. Based on the above analysis, the Draft 2045 CAP is consistent with the 2020–2045 RTP/SCS.

OurCounty Sustainability Plan

The Draft 2045 CAP would further the vision and goals of the OurCounty Sustainability Plan and implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, once adopted, the Draft 2045 CAP would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP would serve as the overarching implementation plan through the 2045 horizon year and is expected to be updated regularly to reflect new advances and technologies in GHG emissions reduction strategies. One of the primary objectives of the Draft 2045 CAP is to align its GHG emissions reduction goals with the OurCounty Sustainability Plan. The Draft 2045 CAP would implement reduction measures directly related to the OurCounty goals such as measures and actions to increase building electrification and decarbonization, increase the use of recycled and gray water, and reduce reliance on fossil fuels. Further, the Draft 2045 CAP sets a new target of 40 percent below 2015 levels by 2030 and matches the OurCounty Sustainability Plan’s targets of 50 percent below 2015 levels by 2035. The Draft 2045 CAP’s aspirational goal of carbon neutrality by 2045 is also consistent with the OurCounty Sustainability Plan, which would achieve carbon neutrality by 2045 for LA County operations and by 2050 for Countywide. Therefore, the Draft 2045 CAP as a whole is consistent with the OurCounty Sustainability Plan.

CALGreen Code and Los Angeles County Green Building Ordinance

The Draft 2045 CAP would be consistent with the requirements of the CALGreen Code and LA County Green Building Ordinance, which include building energy and water efficiency improvements. The Draft 2045 CAP would implement both new and existing building energy efficiency improvements through various Draft 2045 CAP measures, including: electrifying new and existing buildings, increasing production of renewable energy, improving the energy efficiency of existing buildings, reducing indoor and outdoor water consumption, and increasing the use of gray and recycled water. Through implementation of these Draft 2045 CAP measures, the Project would be consistent with—and in some instances, go beyond—the code requirements of the CALGreen Code and LA County’s Green Building Ordinance.

Summary

As described above, the Draft 2045 CAP would not conflict with the GHG emissions reduction targets established by EO S-3-05 and SB 32, the reduction measures identified in CARB’s 2017 Scoping Plan, SCAG’s 2020–2045 RTP/SCS, the unincorporated County’s OurCounty Sustainability Plan, or the measures in the CALGreen Code and the LA County Green Building Ordinance. This impact would therefore be less than significant.

Mitigation: None required.

3.9.2.4 Cumulative Impacts

The Draft 2045 CAP would reduce County GHG emissions; the Project would be consistent with applicable GHG reduction plans, policies, and regulations; and GHG emissions impacts are inherently cumulative. For these reasons, the Project's incremental contribution to significant cumulative GHG emissions would be less than significant and not cumulatively considerable. Therefore, the Draft 2045 CAP's cumulative GHG emissions impact would be less than significant.

Mitigation: None required.

Significance after Mitigation: Less than Significant.

3.10 Hazards and Hazardous Materials

This section identifies and evaluates issues related to hazards and hazardous materials to determine whether the Project would result in a significant impact related to hazards to the public or the environment associated with hazardous materials, wastes, or emissions; airport-related safety hazards or excessive noise; or adopted emergency response or evacuation plans. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used to evaluate these impacts, and the results of the impact assessment. For an analysis related to wildfire, see Section 3.18, *Wildfire*.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to hazards and hazardous materials include support for the reliability of energy resources and protection of the environment and public health and safety; concerns that electrification could destabilize energy reliability and affect health and safety; and concerns that alternative technology facilities could release hazardous materials and/or result in hazards-related impacts.

3.10.1 Setting

3.10.1.1 Study Area

The study area for this analysis of impacts related to hazards and hazardous materials consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that composes the unincorporated area of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

3.10.1.2 Environmental Setting

This section is divided into discussions of potential hazards related to hazardous materials, airports, and emergency response and evacuation plans. This section also presents information on potential impacts caused by exposure to several potential hazards associated with renewable energy facilities, including electric and magnetic fields (EMFs) and materials used in solar photovoltaic (PV) panels and battery storage facilities, because projects like these could be facilitated by Draft 2045 CAP measures and actions.

Hazardous Materials

Hazardous materials are commonly encountered during construction activities. Hazardous materials typically require special handling, reuse, and disposal because of their potential to harm human health and the environment. California Health and Safety Code Section 25501 defines a *hazardous material* as:

A material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health

and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substance, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Sites with Known Hazardous Materials Issues

The California Environmental Protection Agency (CalEPA) is required by Government Code Section 65962.5 to compile, maintain, and update lists of hazardous materials release sites, and the CEQA Guidelines require lead agencies to consult the lists to determine whether a project site is on a listed hazardous materials release site. The required lists are as follows:

- **U.S. Environmental Protection Agency (USEPA) National Priorities List:** Lists sites identified by USEPA’s Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (aka Superfund) program, which was created to fund the cleanup of contaminated sites.
- **USEPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and Archived Sites:** The USEPA CERCLIS contains a list of 15,000 hazardous sites around the country. Archived sites are those that have been removed from the list due to a “No Further Remedial Action Planned” status.
- **USEPA Resource Conservation and Recovery Act Information System (RCRIS):** The RCRIS contains information about hazardous waste handlers around the country. All generators, handlers, transporters, and disposers of hazardous waste are required to post information in this system.
- **California Department of Toxic Substances Control (DTSC) Cortese List:** DTSC is a department of CalEPA. Among other responsibilities, DTSC maintains the Cortese List, aka the Hazardous Waste and Substances Sites List. The Cortese List is used by state and local agencies to comply with the CEQA Guidelines by providing information about the locations of hazardous materials release sites. This list includes the Site Mitigation and Brownfields Reuse Program Database (known as CalSites).
- **DTSC HazNet:** DTSC uses this database to monitor shipments of hazardous waste.
- **State Water Resources Control Board Leaking Underground Storage Tank Information System:** The State Water Resources Control Board maintains this system, which consists of an inventory of underground storage tanks and leaking underground storage tanks and tracks unauthorized releases.

These lists of hazardous materials release sites and other relevant sites are now contained on internet databases maintained by government boards or departments. The databases include EnviroStor (maintained by DTSC) and GeoTracker (maintained by the State Water Resources Control Board). As part of the 2019 Draft Program EIR for Connect SoCal (SCAG 2020), these two databases were searched to identify sites in Los Angeles County where hazardous materials may have been released. These two databases and the results they yielded are further characterized below.

EnviroStor

The EnviroStor database (DTSC 2021) includes sites that have known contamination or sites that need further investigation. This database includes the National Priorities List, state response sites, voluntary cleanup sites, school investigation and cleanup sites, corrective action sites, tiered California permit sites, and sites that are being investigated for suspected contamination. Numerous sites in Los Angeles County are listed on EnviroStor, including 149 school investigation and school cleanup sites; 165 state response sites; 18 federal Superfund sites; and 370 voluntary cleanup sites (SCAG 2020: Table 3.9-1).

GeoTracker

The GeoTracker database (SWRCB 2021) includes hazardous materials sites that have the potential to affect groundwater quality, including leaking underground storage tanks. Numerous sites in Los Angeles County are listed on GeoTracker, including 7,528 leaking underground storage tank sites (SCAG 2020: Table 3.9-2).

Sites with Potential Hazardous Materials Issues

A variety of historical land uses and conditions that occur in the unincorporated areas could result in site contamination, representing potential hazards to humans and the environment when new land uses are proposed on those lands. Examples of historical land uses that have the potential to result in current site contamination include burn sites, landfills, composting, formerly used defense sites, agriculture, and petroleum storage.

Landfills

Active, abandoned, and closed landfills present potential issues related to the exposure of humans to hazards, such as landfill gas migration, when a project is proposed on or near a landfill site.

Active Landfills. Seven landfills are sited in the County's unincorporated areas:

- The Calabasas Landfill in the Santa Monica Mountains Planning Area is owned by LA County and operated by County Sanitation District No. 2.
- The Chiquita Canyon Landfill in the Santa Clarita Valley Planning Area is owned and operated by a private waste service company, Waste Connections Inc.
- The Sunshine Canyon Landfill and Recycling Center is partially located within an unincorporated area in the San Fernando Valley Planning Area.
- The Puente Hills Landfill in the East San Gabriel Valley Planning Area is owned by County Sanitation District No. 18 and was operated by County Sanitation District No. 2 (this landfill recently closed).
- The Pebbly Beach Landfill, located on Santa Catalina Island in the Coastal Islands Planning Area, is owned by the City of Avalon and operated by Seagull Sanitation Systems (Republic Services Inc.).
- The San Clemente Landfill is located on San Clemente Island in the Coastal Islands Planning Area and is owned and operated by the U.S. Department of the Navy.
- The Lancaster Landfill and Recycling Center is in the unincorporated area of Antelope Valley.

Additionally, six other landfills are located in incorporated cities within Los Angeles County (not including those listed above, which are partially within unincorporated areas) (County Planning 2015a).

Transfer and Processing Stations. Solid waste not placed directly in the landfills is deposited temporarily in large-volume transfer/processing and direct transfer facilities. Approximately 55 of these facilities are located in Los Angeles County, seven of which are located within unincorporated areas (Los Angeles County 2017). The transfer stations and bin sites play a vital role in accommodating throughput to landfills and serving as collection and separation points for solid waste and recyclables.

Closed Landfills

There are more than 300 closed landfills in Los Angeles County, the majority of which are in incorporated cities. (Although closed landfill sites no longer accept solid waste, some require a great deal of maintenance required to keep them environmentally safe.) Within the County's unincorporated areas, there are two closed landfills: the Puente Hills Landfill (2800 South Workman Mill Road) and the Azusa Refuse Disposal Land Reclamation (325 North Azusa Avenue).

At inactive landfills, LA County and others monitor landfill gas and maintain active landfill gas control systems, maintain the soil cover system, monitor groundwater and surface water quality, and maintain stormwater best management practices (BMPs) to ensure that closed landfills do not pollute surface water or groundwater or pose an explosion or health hazard.

Petroleum Storage

Petroleum hydrocarbons are the most commonly used group of chemicals. Petroleum hydrocarbons encompass a wide range of compounds, including but not limited to fuels, oils, paints, dry-cleaning solvents, and nonchlorinated solvents. These compounds are used in all facets of modern life and can cause soil and groundwater contamination if not handled properly.

Underground storage tanks and aboveground storage tanks that store petroleum are common sources of contamination into soils and groundwater in the County. Property owners with underground storage tanks and aboveground storage tanks on their land often include marketers who sell gasoline to the public, such as service stations and convenience stores, or non-marketers who use tanks solely for their own needs, such as fleet service operators or agricultural users. Leaking underground storage tanks can result in vapor intrusion from volatile organic compounds and benzene into homes when chemicals seep into the soil and groundwater and travel through soil as vapor. These vapors may then move up through the soil and into nearby buildings through cracks in the foundation, causing contamination of indoor air. While vapor intrusion is uncommon, it should be considered when there is a known source of soil or groundwater contamination nearby.

Hazardous Waste Transportation

In California, unless specially exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. DTSC maintains a list of

active registered hazardous waste transporters throughout the state. There are approximately 210 registered hazardous waste transporters in the County (DTSC 2022).

The process of transporting hazardous waste often involves transfer facilities. A *transfer facility* is any waste transportation–related facility that is not an on-site facility. These facilities include but are not limited to loading docks, parking areas, storage areas, and other similar areas. Although not all transfer facilities hold hazardous waste, an operator of a facility that accepts hazardous waste for storage, repackaging, or bulking must obtain formal authorization for those activities through the hazardous waste permit process. Hazardous waste transporters are exempt from storage facility permit requirements if they observe the limits on storage time and handling.

Hazardous waste transfer facilities fall into three main categories:

- An exempt transfer facility operated by a registered transporter.
- A transfer facility operating under the authority of a Resource Conservation and Recovery Act (RCRA) permit.
- A transfer facility operation under the authority of a Standardized Permit.

A transfer facility may be either permitted or exempt. The permit authorizes the activities and establishes the conditions that must be followed by the operator of a permitted transfer facility. Exempt facilities are owned and operated by the transporter of the waste.

Hazardous Materials Release Threats

When unexpectedly released into the environment, hazardous materials may create a significant hazard to the public or environment. Hazardous materials are commonly stored and used by a variety of businesses in the County and could be released into the environment through improper handling or during incident or accident conditions. The business plans and response systems discussed in the following sections are in place to help prevent threats of hazardous material releases.

Hazardous Materials Business Plans

The Los Angeles County Fire Department’s Health Hazardous Materials Division serves as the Certified Unified Program Agency (CUPA) for the unincorporated areas and for most of the County’s incorporated cities. A CUPA is an agency certified by DTSC to conduct the Unified Program, a collection of state-mandated programs formulated to protect people and the environment from the effects of hazardous materials handling, storage, and release. As part of the Unified Program, businesses that handle, store, or dispose of a hazardous substance at a given threshold quantity must prepare, submit, and implement hazardous business plans for emergency response to releases or threatened releases of hazardous materials. These business plans must include the facility’s inventory of hazardous materials handled, an emergency response plan for actual or threatened releases, an employee training program, and a facility map displaying the locations of reportable hazardous materials. The chemical inventories are updated and submitted annually, and the overall business plans are reviewed and submitted every three years or when significant changes in business operation occur (LACoFD 2009).

Risk Management Plans

One of the programs administered by the Los Angeles County Fire Department's Health Hazardous Materials Division and its participating agencies is the California Accidental Release Prevention (CalARP) program (LACoFD 2009). The CalARP program requires the owner or operator of a stationary source with more than a threshold quantity of a regulated substance to prepare a risk management plan (RMP). The CalARP program combines federal and state program requirements for the prevention of accidental releases of listed substances into the atmosphere. Under the CalARP program, an RMP must include a hazard assessment program, an accidental release prevention program, and an emergency response plan. The RMP must be revised every five years or as necessary.

Airport Hazards

The main areas of concern related to airport hazards are overflight safety, airspace protection, flight patterns, and land use compatibility. Hazards associated with airports can have serious impacts on human safety and quality of life. In Los Angeles County, the Airport Land Use Commission (ALUC) coordinates airport land use compatibility and prepares airport land use plans for public-use airports. As listed below, there are 15 airports within the LA County ALUC's jurisdiction: five owned by LA County, nine owned by other public agencies, and one that is privately owned (ALUC 2022). Most airports in the County are located within incorporated cities, but two airports are located in unincorporated areas: the Agua Dulce Airport in the Santa Clarita Valley Planning Area and the Catalina Airport in the Coastal Islands Planning Area.

- Agua Dulce Airport
- Compton/Woodley Airport
- Catalina Airport in the Sky
- Hawthorne Municipal Airport
- Hollywood Burbank Airport
- El Monte Airport
- Long Beach Airport
- Los Angeles International Airport
- Palmdale Regional Airport
- Santa Monica Municipal Airport
- Van Nuys Airport
- Whiteman Airport
- Brackett Field Airport
- Torrance Airport–Zamperini Field
- General William J. Fox Airfield

Los Angeles County also has 11 private-use airstrips, one private-use seaplane base, and 138 heliports registered with the Federal Aviation Administration (FAA) (County Planning 2015a).

Public Airport Hazard Prevention

Airport land use compatibility plans (ALUCPs) guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate near airports. They are intended to protect the safety of people, property, and aircraft on the ground and in the air near the airport. They also protect airports from encroachment by new incompatible land uses that could restrict their operations. ALUCPs are based on a defined area around an airport known as the *Airport Influence Area*, which is established by factors including airport size, operations, and configuration, as well as safety, airspace protection, noise, and overflight impacts on the land

surrounding an airport. Although most major airports in Los Angeles County are situated in incorporated areas, the Airport Influence Areas for the following airports are in or extend into unincorporated areas: Los Angeles International Airport, Agua Dulce Airport, Palmdale Regional Airport, and General William J. Fox Airfield in Lancaster (Los Angeles County 2022). ALUCPs do not affect existing land uses. Structure replacement and infill development are generally permitted under ALUCPs.

Military Airport Hazard Prevention

Guidelines set forth by the U.S. Department of Defense as part of its Air Installation Compatible Use Zone (AICUZ) program address land use compatibility and safety policies for military airport runways. The AICUZ was initiated in the 1970s to recommend land uses that may be compatible with noise levels, accident potential, and flight clearance requirements associated with military airfield operations. The Department of Defense prepared individual AICUZ plans for all major military airports. The objective of this program is to encourage compatible uses of public and private lands in the vicinity of military airfields through the local communities' comprehensive planning process. Edwards Air Force Base, which is partially located in the northern portions of the Antelope Valley Planning Area and partially located in Kern County, is subject to these regulations, as is Air Force Plant 42, located at the Palmdale Regional Airport.

Hazard Prevention at Private Airports

Safety-related hazards at private and special-use airports affect less land because of these airports' lower activity levels compared to public-use airports. In addition, the public has very limited access to or ability to use these facilities, given their ownership by private citizens or public agencies (such as the U.S. Bureau of Land Management or the U.S. Forest Service). Land use controls differ substantially between public airports and private airports. First, no Airport Influence Areas are identified around these airports and land use restrictions are much less defined than with public airports. Second, the California Department of Transportation's Division of Aeronautics controls private and special-use airports through a permitting process and is responsible for regulating operational activities at these airports.

Emergency Response and Evacuation Plans

Emergency response plans include elements to maintain the continuity of government, emergency functions of governmental agencies, mobilization and application of resources, mutual aid, and public information. Emergency response plans are maintained at the federal, state, and local levels for all types of disasters, including human-made and natural. It is the responsibility of government to undertake an ongoing comprehensive approach to emergency management to avoid or minimize the effects of hazardous events. Local governments have primary responsibility for preparedness and response activities.

The Safety Element of the General Plan addresses the protection of the community from risks associated with natural disasters such as earthquakes, slope instability, soils hazards, and fires (County Planning 2015b). LA County's Integrated Waste Management Plan addresses hazardous materials management (LA County DPW 2020). Hazardous materials also are regulated by the business plans and risk management plans discussed above. The LA County All-Hazards

Mitigation Plan prepared by the Los Angeles County Chief Executive Office, Office of Emergency Management (CEO OEM), sets strategies for both natural and human-caused hazards in the County (Los Angeles County Chief Executive Office 2019) and is described below. The All-Hazards Mitigation Plan, which has been approved by the Federal Emergency Management Agency (FEMA) and the California Emergency Management Agency (CalEMA), includes a compilation of known and projected hazards in the County and describes historical disasters in the County. The CEO OEM also prepares the Operational Area Emergency Response Plan (OAERP), described below (Los Angeles County Chief Executive Office 2012). The Topanga Community Wildland Fire Evacuation Plan identifies LA County's approach to ensure, in cooperation with public agencies, a safe and effective community response to a wildland fire evacuation (Los Angeles County Chief Executive Office 2009).

Los Angeles County General Plan 2035, Safety Element

The General Plan's Safety Element contains goals and policies to shape development so that risks to humans and property from natural disasters are reduced (Los Angeles County Planning 2015b). The policy framework set forth in the Safety Element discourages new development from occurring in areas that have been designated as areas of high fire, flood, or seismic hazard.

All-Hazard Mitigation Plan

The Safety Element works in conjunction with the All-Hazards Mitigation Plan, which is prepared by the CEO OEM, which sets strategies for natural and human-caused hazards in the County. The All-Hazards Mitigation Plan was updated and adopted by the LA County Board of Supervisors in 2019 and profiles a wide variety of human-induced and natural hazards, including earthquakes, fires, climate change, dam failure, flood, tsunami, landslides, and wildfire. The plan is the second Countywide compilation of future mitigation strategies and programs and addresses all major natural and human-caused disasters within Los Angeles County that fall within the responsibility of LA County departments. The plan addresses the unincorporated areas of the County. Although the plan does not provide specific mitigation planning for each of the 88 cities within the County, many of the strategies and mitigation goals cross political boundaries and also apply to and cover the incorporated areas (Los Angeles County Chief Executive Office 2019).

Operational Area Emergency Response Plan

The OAERP establishes LA County's emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts among the various emergency departments, agencies, special districts, and jurisdictions that compose the Los Angeles County Operational Area. The purpose of the OAERP is to incorporate and coordinate all LA County facilities and personnel, along with the jurisdictional resources of the cities and special districts within the County, into an efficient operational area organization capable of responding to any emergency using the California Standardized Emergency Management System, mutual aid, and other appropriate response procedures. The OAERP is an extension of the California Emergency Plan. The operational concepts covered in the plan focus on large-scale disasters that have the potential to generate unique situations (Los Angeles County Chief Executive Office 2012).

Renewable Energy Facilities

A variety of potential hazards are associated with renewable energy facilities. Some types of PV solar panels contain potentially hazardous materials, and battery storage facilities can catch fire. Both solar energy generation and battery storage systems, as well as electrical transmission facilities, produce EMFs.

Solar Photovoltaic Technology

Some types of solar PV technology involve crystalline silicon or thin-film cadmium telluride type panels. Potential environmental health and safety concerns are associated with the use of cadmium-containing PV panels. Elemental cadmium (Cd), which forms cadmium telluride (CdTe) when reacted with tellurium (Te), is a lung carcinogen and can cause detrimental effects on the kidneys and bone with long-term exposure (Fthenakis and Zweibel 2003).

According to a report from the National Renewable Energy Laboratory, the only pathways for human exposure to CdTe are via ingesting flakes or dust particles, or inhaling dust and fumes. In PV panels, the CdTe layers are encapsulated between layers of glass and are therefore stable. Unless the PV module is purposely ground to a fine dust, dust particles will not be generated. Studies have indicated that CdTe releases are unlikely to occur during accidental breakage of panels (Fthenakis and Zweibel 2003). In the case of fire, CdTe may pose an increased health risk. The melting point of CdTe is 1,041 degrees Celsius (°C) (1,906 degrees Fahrenheit [°F]), and evaporation starts at 1,050°C (1,922°F). The thin layers of CdTe are encapsulated between glass plates, which would be molten at these temperatures, making vapor emissions unlikely (Fthenakis and Zweibel 2003).

Battery Storage Facilities

Battery storage facilities that charge themselves from the existing electrical grid or other renewable power facilities (e.g., solar PV) during periods of the day when overall energy capacity is high and energy consumption is low, and then put the stored energy back onto the electrical grid when daily demand is at its peak, may include the use of lithium-ion batteries. If the battery storage facility is not properly designed, lithium-ion batteries could heat to the point of thermal runaway (i.e., failure of a single cell within the system cascading into a fire and explosion). This technology requires cooling of the battery components (cells/modules). To cool the battery components, the battery enclosure must be maintained at room temperature within a specific temperature range (approximately 68°F) using traditional air conditioner units (compressor-based refrigerant systems).

Electric and Magnetic Fields

EMFs are distinct phenomena that occur both naturally and as a result of human activity across a broad spectrum. Naturally occurring EMFs are caused by atmospheric conditions and Earth's geomagnetic field. The fields caused by human activity result from technological application of the electromagnetic spectrum for uses such as communications, appliances, and the generation, transmission, and local distribution of electricity. EMFs are vector quantities that have the properties of direction and amplitude (field strength). Solar power systems create EMFs from the PV arrays and the associated infrastructure, such as power lines and substation transformers.

Electric Fields

Electric fields from power facilities are created whenever the facilities are energized, with the strength of the field dependent directly on the voltage of the line or facility creating it. Electric field strength is typically described in units of kilovolts per meter. Electric field strength attenuates (gets weaker) rapidly as the distance from the source increases. Electric fields are reduced at many receptors because they are effectively shielded by most objects or materials such as trees or houses.

Unlike magnetic fields, which penetrate almost everything and are unaffected by buildings, trees, and other obstacles, electric fields are distorted by any object that is within the electric field, including the human body. Even trying to measure an electric field with electronic instruments is difficult because the devices themselves would alter the levels recorded. Determining an individual's exposure to electric fields requires the understanding of many variables, including the electric field itself, how effectively a person is grounded, and a person's body surface area within the electric field.

Electric fields in the vicinity of power lines or facilities can cause phenomena like the static electricity experienced on a dry winter day, or with clothing just removed from a clothes dryer, and may result in nuisance electric discharges when touching long metal fences, pipelines, or large vehicles.

Magnetic Fields

Magnetic fields from power lines or facilities are created whenever current flows through the power line or facility at any voltage. The strength of the field is directly dependent on the current in the line. Magnetic field strength is typically measured in milligauss. Like electric field strength, magnetic field strength attenuates rapidly with distance from the source. Unlike electric fields, magnetic fields are not shielded by most objects or materials.

Comparison of Electric and Magnetic Fields

The nature of electric and magnetic fields can be illustrated by considering a household appliance. When the appliance is energized by being plugged into an outlet, but is not turned on so no current would be flowing through it, an electric field would be generated around the cord and appliance, but no magnetic field would be present. If the appliance is switched on, the electric field would still be present and a magnetic field would be created. The electric field strength is directly related to the magnitude of the voltage from the outlet, and the magnetic field strength is directly related to the magnitude of the current flowing in the cord and appliance.

This EIR impacts analysis (Section 3.10.2) does not consider EMFs in the context of CEQA for determination of environmental impact, because there is no agreement among scientists that EMFs create a health risk and there are no defined or adopted CEQA standards for defining health risks from EMFs. As a result, the EMF information is presented for informational purposes; see Section 3.10.2.5.

3.10.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Occupational Safety and Health Act of 1970

The Occupational Safety and Health Act (Code of Federal Regulations Title 29, Parts 70–2400 [29 CFR 70–2400]) is implemented by the federal Occupational Safety and Health Administration (OSHA) and contains provisions with respect to hazardous materials handling. Federal OSHA requirements set forth in 29 CFR 1910 et seq. are designed to promote worker safety, worker training, and a worker’s right to know (OSHA 2022). In California, OSHA has delegated the authority to administer OSHA regulations to the State of California.

Hazardous Materials Transportation Act

Enacted in 1975, the Hazardous Materials Transportation Act (United States Code Title 49, Section 5101 et seq. [49 U.S.C. 5101 et seq.]) is the principal federal law regulating the transportation of hazardous materials. Its purpose is to “protect against the risks to life, property, and the environment that are inherent in the transportation of hazardous material in intrastate, interstate, and foreign commerce” under the authority of the U.S. Secretary of Transportation.

Resource Conservation and Recovery Act

The RCRA (42 U.S.C. Part 2) was the first major federal act regulating the potential health and environmental problems associated with hazardous and nonhazardous solid waste. RCRA and implementing regulations promulgated by USEPA provide the general framework for the national hazardous and nonhazardous waste management systems. This framework includes the determination of whether hazardous wastes are being generated, techniques for tracking wastes to eventual disposal, and the design and permitting of hazardous waste management facilities (USEPA 2021a).

RCRA amendments enacted in 1984 and 1986 began the process of eliminating land disposal as the principal method of hazardous waste disposal. Hazardous waste regulations promulgated in 1991 address site selection, design, construction, operation, monitoring, corrective action, and closure of disposal facilities. Additional regulations addressing solid waste issues are contained in 40 CFR Part 258.

Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act (1986; 42 U.S.C. 9601 et seq.) was created to help communities plan for emergencies involving hazardous substances. This law requires hazardous chemical emergency planning by federal, state, and local governments; Native American tribes; and industry. It also requires industry to report on the storage, use, and releases of hazardous chemicals to federal, state, and local governments (USEPA 2021c).

Comprehensive Environmental Response, Compensation, and Liability Act

CERCLA (1980; 42 U.S.C. 1906 et seq.), also known as the Superfund Act, outlines the potential liability related to the cleanup of hazardous substances; available defenses to such liability;

appropriate inquiry into site status under Superfund, the federal government’s program to clean up the nation’s uncontrolled hazardous waste sites; statutory definitions of hazardous substances and petroleum products; and the petroleum product exclusion under CERCLA. CERCLA provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also establishes the National Contingency Plan, which provides guidelines and procedures necessary to respond to releases and threatened releases of hazardous substances (USEPA 2021b). Los Angeles County lies within USEPA Region 9, which has the responsibility for designation and oversight of Superfund sites on the National Priorities List.

Superfund Amendment and Reauthorization Act, Title III

Under the Superfund Amendment and Reauthorization Act, Title III (1986; 40 CFR 350–372), facilities are required to report the following items on USEPA Form R, the Toxic Chemical Release Inventory Reporting Form: facility identification, off-site locations where toxic chemicals are transferred in wastes, chemical-specific information, and supplemental information. Form R requires a facility to list the hazardous substances that are handled on-site and to account for the total aggregate releases of listed toxic chemicals for the calendar year. Releases to the environment include emissions to the air, discharges to surface water, and on-site releases to land and underground injection wells (USEPA 1987).

Robert T. Stafford Disaster Relief and Emergency Assistance Act, as Amended, and Related Authorities

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 100-707), signed into law on November 23, 1988, amended the Disaster Relief Act of 1974 (Public Law 93-288). The Stafford Act constitutes the statutory authority for most federal disaster response activities, especially as they pertain to FEMA and FEMA programs (FEMA 2021).

Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 (Public Law 106-390) provides the legal basis for FEMA mitigation planning requirements for state, local, and Indian tribal governments as a condition of mitigation grant assistance. This law amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions and replacing them with a new set of requirements that emphasize the need for state, local, and Indian tribal entities to closely coordinate mitigation planning and implementation efforts. The requirement for a state mitigation plan is continued as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans. The Disaster Mitigation Act of 2000 also established a new requirement for local mitigation plans and authorized up to 7 percent of Hazardous Mitigation Grant Program funds available to a state for development of state, local, and Indian tribal mitigation plans (FEMA 2000).

Code of Federal Regulations, Title 14, Part 77

The FAA’s primary role is to promote aviation safety and control the use of airspace. Public-use airports that are subject to the FAA’s grant assurances must comply with specific FAA design criteria, standards, and regulations. Land use safety compatibility guidance from the FAA is limited to the immediate vicinity of the runway, the runway protection zones at each end of the runway, and the protection of navigable airspace. The FAA enforces safety standards and investigates and corrects violations, as appropriate. 14 CFR Part 77, Safe Efficient Use and Preservation of the Navigable Airspace, establishes the federal review process for determining whether proposed development activities in the vicinity of an airport have the potential to result in a hazard to air navigation. 14 CFR Part 77 identifies criteria that govern which projects require notice to be filed with the FAA, as well as standards for determining whether a proposed project would represent an obstruction “that may affect safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities.” Objects that are identified as obstructions based on these standards are presumed to be hazards until an aeronautical study conducted by the FAA determines otherwise.

14 CFR Part 77.9, Construction or Alteration Requiring Notice, indicates that notice must be filed with the FAA for any construction or alteration of objects within 20,000 feet of a public-use airport runway when the height of the objects exceeds (i.e., is taller than) an imaginary surface with a 100:1 (1 foot upward per 100 feet horizontally) slope from the nearest point of the nearest runway. This requirement applies when the airport has at least one runway that exceeds 3,200 feet in length; for shorter runways, the notification surface has a 50:1 slope and extends 10,000 feet from the runway. For heliports, the notification surface has a 25:1 slope and extends 5,000 feet from the helicopter takeoff and landing area, commonly referred to as the *final approach and takeoff area*. The notification requirements apply to all public-use airports, military airports, and heliports. When FAA notification is required, it must be provided using FAA Form 7460-1, Notice of Proposed Construction or Alteration (ECFR 2022).

Title 40—Protection of Environment, Chapter I—Environmental Protection Agency (Continued) CFR Part 68—Chemical Accident Prevention Provisions

This part of the Code of Federal Regulations sets forth the list of regulated substances and thresholds, the petition process for adding or removing substances to the list of regulated substances, the requirements for owners or operators of stationary sources concerning the prevention of accidental releases, and the state accidental release prevention programs approved under Section 112(r) (U.S. Government Information 2016).

State Laws, Regulations, and Policies

Hazardous Waste Control Law of 1972

The Hazardous Waste Control Act (Health and Safety Code Section 25100 et seq.) created the state hazardous waste management program, which is similar to but more stringent than the federal RCRA program. The act is implemented by regulations contained in California Code of Regulations (CCR) Title 26, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards;

operation of facilities and staff training; and closure of facilities and liability requirements. These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

Hazardous Materials Release Response Plans and Inventory Law of 1985

The Hazardous Materials Release Response Plans and Inventory Law of 1985, aka the Business Plan Act (Health and Safety Code Sections 25500–25547.8), governs hazardous materials handling, reporting requirements, and local agency surveillance programs.

California Emergency Services Act (Assembly Bill 38, Chapter 372)

Assembly Bill (AB) 38 combined the Office of Homeland Security and the Office of Emergency Services into CalEMA. Under AB 38, CalEMA was responsible for overseeing and coordinating emergency preparedness, response, recovery, and homeland security activities in the state. In 2013, under the Governor’s reorganization plan #2, CalEMA was eliminated and restored to the Governor’s Office, renaming it the California Governor’s Office of Emergency Services (Cal OES 2022).

Hazardous Materials Release Cleanup (Assembly Bill 440, Chapter 588)

AB 440 (Chapter 588, 2013) authorizes a local agency to take cleanup action similar to that under the Polanco Redevelopment Act that the local agency determines is necessary, consistent with other state and federal laws, to remedy or remove a release of hazardous substances within the boundaries of the local agency. AB 440 allows the local agency to designate another agency, in lieu of the department or the regional board, to review and approve a cleanup plan and to oversee the cleanup of hazardous material from a hazardous material release site, under certain conditions. It also provides immunity to the local agency as long as the action is in accordance with a cleanup plan prepared by a qualified independent contractor, and approved by the department, a regional board, or the designated agency, and the cleanup is undertaken and properly completed. Finally, AB 440 authorizes the local agency to recover cleanup costs from the responsible party.

State Aeronautics Act

The State Aeronautics Act (Public Utilities Code Section 21670 et seq.) requires the preparation of an airport land use compatibility plan, or ALUCP, for each county in the state that has one or more public-use airports (Public Utilities Code Section 21675). An ALUCP is a planning document that contains policies for promoting safety and compatibility between public-use airports and the communities that surround them. LA County has established an airport land use commission, or ALUC, in accordance with state law, to prepare land use compatibility plans for all public-use airports in the County and to review general plans, proposed changes to zoning codes and ordinances, land use actions and development projects, and airport development plans for consistency with compatibility policies. The ALUC retains land use development review of applicable projects until

the affected local agencies' general and specific plans have been deemed consistent with the ALUCP. See below for details about ALUCPs that govern activities in the County.

Asbestos Regulations

In 1990, the California Air Resources Board (CARB) issued an airborne toxic control measure (ATCM), which prohibited the use of serpentine aggregate for surfacing if the asbestos content was 5 percent or more. In July 2000, CARB adopted amendments to the existing ATCM prohibiting the use or application of serpentine, serpentine-bearing materials, and asbestos-containing ultramafic rock for covering unpaved surfaces unless it has been tested using an approved asbestos bulk test method and determined to have an asbestos content that is less than 0.25 percent. In July 2001, CARB adopted a new ATCM for construction, grading, quarrying, and surface mining operations in areas with serpentine or ultramafic rocks. These regulations are codified in 17 CCR Section 93105. The regulations require preparation and implementation of an asbestos dust mitigation plan for construction or grading activities on sites greater than 1 acre in size with soils known to contain naturally occurring asbestos. The air districts enforce this regulation. In addition, Health and Safety Code Section 19827.5 prohibits the issuance of demolition permits by local and state agencies for any building or structure that has not submitted all required asbestos notifications to USEPA pursuant to 40 CFR Part 61.

California Occupational Safety and Health Administration (Cal/OSHA) Regulations.

Cal/OSHA sets forth regulations for the disturbance of asbestos-containing construction materials (ACCMs), including removal operations for all types of ACCMs. Cal/OSHA requires contractors and employers that remove ACCMs to be registered and consultants and technicians who conduct sampling and/or removal to be certified. In addition, the agency has developed standards for general industry and the construction industry hazardous waste operations and emergency response. Cal/OSHA ensures that employers must have controls to reduce and monitor exposure levels of hazardous materials, an informational program describing any exposure during operations and the inspection of drums and containers prior to removal or opening. Decontamination procedures and emergency response plans must be in place before employees begin working in hazardous waste operations (DIR 2022).

8 CCR Section 1529. This section of the regulations governs asbestos exposure for work identified in Section 1502, including demolition or salvage of structures where asbestos is present; removal or encapsulation of materials containing asbestos; construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof, that contain asbestos, installation of products containing asbestos; asbestos spill/emergency cleanup; transportation, disposal, storage, containment of, and housekeeping activities involving asbestos or products containing asbestos, on the site or location at which construction activities are performed; and excavation potentially involving exposure to asbestos as a natural constituent that is not related to asbestos mining and milling activities.

South Coast Air Quality Management District Rule 1403. The Clean Air Act regulates asbestos as a hazardous air pollutant, which subjects it to regulation by the South Coast Air Quality Management District under its Rule 1403. OSHA also regulates asbestos as a potential worker safety hazard. These rules and regulations prohibit emissions of asbestos from demolition

or construction activities, require medical examinations and monitoring of employees engaged in activities that could disturb asbestos fibers, and require notice to federal and local government agencies prior to renovation or demolition activities that could disturb asbestos (SCAQMD 2007).

Lead Regulations

Because of its toxic properties, lead is regulated as a hazardous material. Lead is also regulated as a toxic air contaminant. State-certified contractors must perform inspection, testing, and removal (abatement) of lead-containing building materials in compliance with applicable health and safety and hazardous materials regulations, including those outlined in CCR Title 17.

California Accidental Release Prevention Program

The California Accidental Release Prevention Program (CalARP) (19 CCR Division 2, Chapter 4.5) replaced the California Risk Management and Prevention Program as of January 1, 1997. The CalARP program encompasses both the federal “Risk Management Program” established in the Code of Federal Regulations (40 CFR Part 68) and the State of California program (19 CCR Division 2, Chapter 4.5).

The main objective of the CalARP program is to prevent accidental releases of those substances determined to potentially pose the greatest risk of immediate harm to the public and the environment, and to minimize the consequences if releases do occur. These substances, called *regulated substances*, include both flammable and toxic hazardous materials listed on the Federal Regulated Substances for Accidental Release Prevention and State of California Regulated Substances lists. Businesses that handle regulated substances in industrial processes above threshold quantity levels are subject to CalARP program requirements.

The CalARP program requires businesses to have planning activities intended to minimize the possibility of an accidental release by encouraging engineering and administrative controls. It is further intended to mitigate the consequences of an accidental release, by requiring owners or operators of facilities to develop and implement an accident prevention program.

California Emergency Plan

The California Emergency Plan describes how response to natural or human-caused emergencies occurs within the state (Cal OES 2017). The plan describes methods for conducting emergency operations; emergency services of government agencies; how resources are mobilized; how the public is informed; how continuity of government is maintained during an emergency; hazard mitigation (actions to reduce risk); and preparedness and recovery from disaster. Hazards and vulnerabilities considered in the plan include earthquake, flood, fire, landslide, tsunami, hazardous materials emergencies, energy disruption, and others.

Prospective School Siting

Section 17210 et seq. of the Education Code and Sections 21151.2, 21151.4, and 21151.8 of the Public Resources Code require that prospective school sites be reviewed to determine that such sites are not a current or former hazardous waste disposal site, a hazardous substance release site, or the site of hazardous substance pipelines. These laws also require consultation with local

hazardous materials agencies and air quality districts to ensure that sites within 0.25 mile of a school that handle or emit hazardous substances would not potentially endanger sensitive receptors. See Section 3.4, *Air Quality*, for details about potential sensitive receptors in unincorporated areas of the County.

Regional and Local Laws, Regulations, and Policies

Los Angeles County General Plan 2035 and 2019 All-Hazards Mitigation Plan

The Safety Element of the General Plan, in conjunction with the All-Hazard Mitigation Plan prepared by the CEO OEM, sets strategies for natural and man-made hazards in the County. The All-Hazard Mitigation Plan, which has been approved by FEMA and CalEMA, includes a compilation of known and projected hazards in the County, including earthquakes, landslides, floods, wildfires, tsunamis, and other hazards (County Planning 2015b; Los Angeles County Chief Executive Office 2019).

Airport Land Use Plans

The LA County ALUC has adopted the comprehensive *Los Angeles County Airport Land Use Compatibility Plan*, which covers all airports within its jurisdiction (ALUC 2004a). The ALUC also has adopted separate ALUCPs for Fox Airfield and Brackett Field Airport (ALUC 2004a, 2015). An ALUCP for an individual airport supersedes the Countywide ALUCP.

The General William J. Fox ALUCP sets forth land use compatibility policies applicable to future development in the vicinity of the airport (ALUC 2004b). The policies are designed to ensure that future land uses in the surrounding area will be compatible with potential long-range aircraft activity at the airport. Specific land use compatibility criteria address noise, safety, airspace protection, and overflight. The General William J. Fox ALUCP area of influence (i.e., its planning boundary) includes portions of the County and the city of Lancaster where land uses could be negatively affected by noise or safety impacts from present or future aircraft operations at the airfield, and where land uses could negatively affect the operation of aircraft at the airport.

The Brackett Field ALUCP contains land use compatibility policies “that are intended to ensure that future land uses in the surrounding area will be compatible with potential long-range aircraft activities at the airport, and that the public’s exposure to airport safety hazards and noise impacts are minimized” (ALUC 2015). Specific land use compatibility policies address noise, safety, airspace protection, overflight compatibility, and special circumstances. The Brackett Field Airport area of influence (i.e., its planning boundary) extends approximately 2.7 miles from the airport runways. Within this area, the ALUCP establishes the maximum height that objects on the ground can reach without potentially creating constraints or hazards to the use of the airspace by aircraft and identifies locations exposed to potentially disruptive levels of aircraft noise and/or areas where the risk of an aircraft accident poses heightened safety concerns for people and property on the ground. The specific local agencies with land use responsibilities within the airport influence area include LA County (in the unincorporated areas) as well as the Cities of Claremont, Glendora, La Verne, Pomona, and San Dimas.

3.10.2 Impact Analysis

3.10.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would have a significant impact related to hazards and hazardous materials if it would:

- a) Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials;
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment;
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses;
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area; or
- f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

3.10.2.2 Methodology

This analysis evaluates the considerations identified in CEQA Guidelines Appendix G and identified by LA County, which are set forth in Section 3.10.2.1, *Significance Criteria*, to determine whether the Draft 2045 CAP, including future projects facilitated by Draft 2045 CAP measures and actions, would result in significant impacts on the environment related to hazards and hazardous materials. Impacts related to hazards and hazardous materials are analyzed qualitatively. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.10.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas (GHG) emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be

facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar PV projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of hazards and hazardous materials–related impacts. These and other relevant measures and actions include: (1) Measure ES3, Increase Renewable Energy Production (because it could facilitate the installation of microgrids combined with solar energy generation and batteries to support grid and building resilience); Measure ES4, Increase Energy Resilience (because it could facilitate deployment of distributed energy resources and microgrids); Measure W1, Institutionalize Sustainable Waste Systems and Practices (because it could affect existing or future solid waste facilities); and Measure W3, Maximize Countywide Diversion Rate (because it could facilitate new organics waste collection and processing facilities, including anaerobic digestion).

Renewable energy generation and infrastructure projects could also be facilitated by measures and actions associated with Strategy 1, Decarbonize the Energy Supply; Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; Measures T7, T8, and T9, regarding the electrification of vehicles; and Strategy 5, regarding the electrification of buildings. The development of such projects could cause impacts related to hazards or hazardous materials. Specific hazards and hazardous materials-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials.

Impact 3.10-1: Projects facilitated by the Draft 2045 CAP would not create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County’s GHG emissions, and it would support development already allowed under the General Plan’s land use assumptions in the 2021–2029 Housing Element. Construction activities in furtherance of projects facilitated by Draft 2045 CAP measures and actions could involve the use of standard construction equipment and materials, which would include the following commonly used materials and substances: fuel, oils, and lubricants; hydraulic fluid; paints and thinners; and cleaning solvents to maintain vehicles and motorized equipment. Routine use of any of these substances could pose a hazard to people or the environment and, unless handled in accordance with regulatory requirements, could cause a potentially significant impact.

Numerous laws and regulations regulate the transportation, handling, storage, and disposal of hazardous materials. See Section 3.10.1.3, *Regulatory Setting*, for details. For example, the Health and Safety Code and the California Code of Regulations require preparation of a hazardous materials business plan/spill prevention control and countermeasures plan (HMBP/SPCC plan) when conditions have been determined to warrant regulation; when required, such plans must be prepared before construction. HMBPs include BMPs for the transport, storage, use, and disposal of hazardous materials and waste. HMBPs also include information regarding construction activities, worker training procedures, and hazardous materials inventory procedures.

Any fuel tanks required for a project facilitated by the Draft 2045 CAP measures and actions would be maintained and operated according to all federal, state, and local regulations during construction and operation, and hazardous materials storage would be detailed in an SPCC plan. Refueling and general maintenance for construction equipment, such as changing fluids and lubricating parts, also would be subject to sufficient containment capabilities and according to measures outlined in an SPCC plan.

During construction of projects facilitated by Draft 2045 CAP measures and actions, waste disposal and collection receptacles would be located on-site to ensure the proper disposal of hazardous materials in accordance with regulatory requirements. Additionally, construction activity would be subject to the California Construction Stormwater Permit (Construction General Permit) and its required storm water pollution prevention plan (SWPPP), which include BMPs to control potentially contaminated runoff from construction sites. See Section 3.11, *Hydrology and Water Quality*, for information about the Construction General Permit and SWPPPs.

Compliance with applicable federal, state, and local laws and regulations and oversight would effectively reduce the inherent hazard associated with routine transport, use, storage, and disposal activities. Therefore, impacts resulting from projects facilitated by Draft 2045 CAP measures and actions would be less than significant.

Mitigation: None required.

Criterion b) Whether the Project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment.

Impact 3.10-2: The Project, as a result of solar PV and other projects facilitated by the Draft 2045 CAP measures and actions, could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. (*Less than Significant with Mitigation Incorporated*)

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. During the construction of projects facilitated by Draft 2045 CAP measures and actions, including solar PV projects, construction

activities may involve the transportation, storage, use, or disposal of a variety of hazardous materials, including batteries, hydraulic fluid, diesel fuel, gasoline, grease, lubricants, paints, solvents, and adhesives. Additionally, should future developments be affected by the presence of known hazardous materials sites, the removal and handling of hazardous wastes could lead to an accidental release. If, during the course of development, hazardous materials were accidentally released into the environment, a significant impact would result.

As noted previously, numerous laws and regulations regulate the transportation, handling, storage, and disposal of hazardous materials. The required HMBP and SPCC plan discussed above would include procedures that would help prevent the accidental release of hazardous materials into the environment. A standard HMBP and SPCC plan would include BMPs as well as spill control and spill response measures to ensure any release would be handled appropriately. The SPCC plan would include appropriate measures to ensure that work activities cease in the event of a spill, so that the construction contractor could contain any release and enact cleanup protocols, which would include notifying appropriate agencies and using materials stored on-site (e.g., absorbent pads) to minimize the spread or exposure.

Accidents or mechanical failure involving heavy equipment could result in the accidental release of fuel, lubricants, hydraulic fluid, or other hazardous substances. These types of spills on construction sites are typically small, localized, and cleaned up in a timely manner. Construction contractors are contractually responsible for their hazardous materials; the contracts require them to store and dispose of these materials properly in compliance with state and federal laws, including implementing a HMBP/SPCC plan. As discussed previously, projects facilitated by Draft 2045 CAP measures and actions would require coverage under the Construction General Permit (or related stormwater permit). Thus, they would be subject to the protections included in a SWPPP, which would outline BMPs to contain a potential release and prevent any such release from reaching an adjacent waterway or stormwater collection system (e.g., erosion control, sediment control, and waste management).

Because the locations of future projects facilitated by Draft 2045 CAP measures and actions are not known at the time of this analysis, it is not known whether new projects would be proposed on or near known hazardous materials sites. However, if a future project were to be planned or near a known hazardous materials site, then previously or currently contaminated soil or groundwater may be encountered during construction activities (e.g., grading, excavation, utility installation, soil remediation). Compliance with applicable laws and regulations would assure that any resulting impact would be less than significant.

Projects facilitated by Draft 2045 CAP measures and actions may include small-scale distributed solar facilities on buildings and/or ground-mounted, utility-scale solar energy generation facilities and supporting infrastructure. These projects may include the use of cadmium telluride (CdTe) solar technology modules. CdTe cells are made by using semiconductors that optimize the efficiency of transforming solar radiation into electricity and are made by using p-n heterojunctions containing a p-doped cadmium telluride layer and an n-doped cadmium sulfide layer, which may also be made of magnesium zinc oxide. These materials can be toxic and can pollute the environment if disposed of improperly (Solarbuy.com 2021). Should CdTe solar modules used for

projects facilitated by Draft 2045 CAP measures and actions become damaged or broken during installation, these modules could result in a release of cadmium, which is a toxic metal.

The amount of cadmium that could be released would be much less than the estimated average of 7 grams that would be contained in each cubic-meter panel (Fthenakis and Zweibel 2003). Only the CdTe located along the fracture lines would have the potential to be released from the solid CdTe and cadmium sulfide film of the modules. However, solar module design includes a strong laminate material that would result in cracking instead of shattering and would not produce finely ground material (Solarbuy.com 2021). Contact with natural rainwater is not anticipated to result in cadmium contamination of the underlying soil.

Broken CdTe modules are hazardous waste and require proper disposal if not recycled; this impact would be significant. Mitigation Measure 3.10-2 would be implemented for solar PV projects facilitated by the Draft 2045 CAP to ensure that CdTe modules are disposed of or recycled to avoid significant impacts related to human exposure or environmental contamination.

Projects facilitated by Draft 2045 CAP measures and actions may also include utility-grade lithium-ion battery storage facilities. If the battery storage facility is not designed properly, lithium-ion batteries could heat to the point of thermal runaway (i.e., failure of a single cell within the system cascading into a fire and explosion). This technology requires cooling of the battery components (cells/modules). The battery components would require cooling, by maintaining the battery enclosure at room temperature within a specific temperature range (approximately 68°F) using traditional air conditioner units (compressor-based refrigerant systems). The battery enclosures would provide an additional level of protection by providing containment in the event of a fire. Features such as electronic monitoring systems, alarms, and circuit breakers would likely be incorporated in the design to lower the possibility of a thermal runaway chain reaction and an associated significant hazard to the public or the environment through due to a reasonably foreseeable upset.

Given compliance with applicable federal, state, and local laws and regulations and the applicable BMPs and HMBP/SPCC plan, hazards and hazardous materials impacts resulting from projects facilitated by Draft 2045 CAP measures and actions would be less than significant, except that impacts from solar PV installation projects that include the use of CdTe modules would be significant. The following mitigation measure would reduce this impact.

Mitigation Measure 3.10-2: LA County shall require applicants of solar PV installation projects that include the use of CdTe modules to dispose of panels or recycle panels in accordance with current local, state, and federal regulations. Broken and end-of-project-life PV modules, materials, and components shall be:

- Handled in a manner that is protective of human health and the environment.
- Stored on-site in a manner that complies with federal and state laws until recycling or disposal actions can be taken.
- Stored on-site no longer than allowed by federal and state laws.
- Recycled in accordance with federal and state laws applicable at that time.

Significance after Mitigation: Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste from broken CdTe modules is disposed of properly if not recycled. Implementing this measure would reduce the impact to a less-than-significant level.

Criterion c) Whether the Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses.

Impact 3.10-3: Projects facilitated by the Draft 2045 CAP would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. (*Less than Significant with Mitigation Incorporated*)

Some populations (e.g., children, elderly, sick, or disabled persons) are more susceptible to health impacts from hazardous materials than the general population. Hazardous materials used near facilities such as schools, daycare centers, senior living communities, and hospitals must consider potential health impacts on these populations, often referred to as *sensitive receptors*.

Construction or redevelopment on contaminated properties that could generate vapors or fugitive dust—containing contaminants may pose a health risk to these populations. In addition, commercial businesses near sensitive receptors may have hazardous emissions or handle hazardous or acutely hazardous materials or wastes that could pose a health risk to these sensitive receptors.

As discussed in Section 3.4, *Air Quality*, several sensitive receptors and receptor locations are situated within the unincorporated County areas, and it is not known at the time of EIR preparation whether projects facilitated by Draft 2045 CAP measures and actions would be constructed near one or more of them. Typically, developments that would handle hazardous materials or discharge hazardous emissions within 0.25 mile of a sensitive receptor are at risk of exposing sensitive receptors to hazardous materials and emissions. Projects facilitating Draft 2045 CAP measures and actions could create hazardous emissions. Impacts generated by the release of hazardous emissions near sensitive receptors would temporarily occur during construction phases of such projects.

With compliance with Section 17210 et seq. of the Education Code and with Sections 21151.2 and 21151.4 and 21151.8 of the Public Resources Code, any prospective school site would be reviewed to determine that it is not a current or former hazardous waste disposal site, a hazardous substance release site, or the site of a hazardous substance pipeline. Compliance with these laws requires consultation with local hazardous materials agencies and air quality districts, to assure that sites located within 0.25 mile of a school that handle or emit hazardous substances would not endanger sensitive receptors, including students.

Projects that would be facilitated by Draft 2045 CAP measures and actions may include small-scale distributed solar facilities on buildings and/or ground-mounted, utility-scale solar energy generation facilities. These projects may include the use of CdTe solar technology modules. Although elemental cadmium is an acutely toxic substance, human exposure from CdTe PV modules would likely occur only if CdTe fine particles are inhaled. Fine particles would not be

generated unless the modules were ground up or vaporized in a fire (Fthenakis and Zweibel 2003). This impact would be significant. Implementation of Mitigation Measure 3.10-2 would assure that future PV solar projects facilitated by the Draft 2045 CAP would properly dispose of or recycle CdTe modules to avoid significant impacts related to human exposure and/or environmental contamination.

The other federal, state, and local laws and regulations that regulate hazardous materials, discussed in Impacts 3.10-1 and 3.10-2 above and Impact 3.10-4 below, would also be applicable to any activities involving handling hazardous materials or releasing hazardous emissions within 0.25 mile of a sensitive receptor. Compliance with applicable federal, state, and local laws and regulations would assure that impacts on sensitive receptors would be less than significant, except for impacts from solar PV installation projects that include the use of CdTe modules, which would be significant.

Mitigation: Implement Mitigation Measure 3.10-2.

Significance after Mitigation: Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste from broken CdTe modules is disposed of properly if not recycled. Implementing this measure would reduce the impact to a less-than-significant level.

Criterion d) Whether the Project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

Impact 3.10-4: Projects facilitated by the Draft 2045 CAP may be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but would not create a significant hazard to the public or the environment. (*Less-than-Significant Impact*)

The provisions in Government Code Section 65962.5, commonly referred to as the Cortese List, require DTSC to compile and maintain a list of hazardous waste and substances sites, including State Water Resources Control Board leaking underground storage tank sites, active cease-and-desist orders and cleanup and abatement orders, and certain solid waste disposal sites and hazardous waste facilities. As discussed in the context of criterion a), there are several hazardous materials sites within the County's unincorporated areas, many of which are included on the Cortese List. If projects facilitated by Draft 2045 CAP measures and actions are proposed on or near hazardous materials sites that have been included on the Cortese List, then the risk of creating a significant hazard to the public or environment would increase, as contaminated soil and/or groundwater could be exposed during ground-disturbing activities. A significant impact would occur if projects facilitated by the Draft 2045 CAP measures and actions on or near a site listed on the Cortese List would expose hazardous materials to people or the environment.

The previously discussed laws governing the use, transportation, storage, and disposal of hazardous materials would apply to all development proposed on or near Cortese List sites. In addition, sites listed on the Cortese List are under the jurisdiction of a regulatory agency (e.g.,

DTSC, the Los Angeles Regional Water Quality Control Board, or a local agency). As such, the overseeing regulatory agency is in the process of requiring the owners/operators of listed sites to bring their sites into compliance. This includes requiring sites with spills or releases to soil and/or groundwater to investigate and clean up their sites to levels that no longer pose risks to people or the environment. The listings on the Cortese List are public records. At the time when a specific project facilitated by the Draft 2045 CAP measures and actions is implemented, the current status of nearby sites on the Cortese List would be checked and the project planned accordingly to comply with the overseeing regulatory agency requirements, if any. Compliance with applicable federal, state, and local laws and regulations would ensure that any impacts would be less than significant.

Mitigation: None required.

Criterion e) Whether the Project would, for a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the Project area.

Impact 3.10-5: Projects facilitated by the Draft 2045 CAP would not, for a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the Project area. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. Because the Draft 2045 CAP could facilitate projects proposed to be located within a delineated safety or noise hazard zone, it could, due to those projects, result in a safety hazard or excessive noise for people residing or working in the area.

The FAA identifies and regulates impacts related to air traffic and related safety hazards. The FAA's Federal Aviation Regulation at 14 CFR Part 77 establishes standards and notification requirements for objects affecting navigable airspace. Such objects could be power line poles that may be required to connect utility-scale renewable energy projects facilitated by Draft 2045 CAP measures and actions to the regional power grid. Without proper standards and noticing, tall new power line poles and similar structures could pose a safety hazard to aircraft navigating airspace in the area where such structures previously did not exist. These impacts are regulated at the federal level; as such, all new developments that may be proposed within any airport safety or noise hazard zones, or that would include components that may cause a safety hazard, would be obligated to comply with FAA regulations. Additionally, any development proposed in a delineated safety or noise hazard zone (as provided by the LA County ALUP) would be required to comply with any requirements included in the LA County ALUP, such as land use compatibility criteria designed to address land uses that could be negatively affected by aviation noise or safety impacts associated with existing or future aircraft operations in the vicinity of airports in the County. The land use compatibility criteria reduce the potential for proposed projects near the airports to be negatively affected by aircraft noise and aviation hazards. Through

compliance with FAA regulations and LA County ALUC requirements, impacts resulting from projects facilitated by Draft 2045 CAP measures and actions would be less than significant.

Mitigation: None required.

Criterion f) Whether the Project would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Impact 3.10-6: Projects facilitated by the Draft 2045 CAP would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. (*Less than Significant with Mitigation Incorporated*)

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. The 2019 LA County All-Hazards Mitigation Plan does not include specific evacuation routes to be used in the event of an emergency (Los Angeles County Chief Executive Office 2019). However, the General Plan includes a map of freeway and highway disaster routes, many of which cross through portions of the unincorporated County (County Planning 2015b). Depending on their nature, projects that would be facilitated by the Draft 2045 CAP measures and actions may require construction on major roadways or the closure of major roadways to facilitate construction activities. Should construction activities within major roadways or road closures be required to facilitate projects implementing Draft 2045 CAP measures and actions, such activities could obstruct major roadways and could hinder evacuation procedures.

Although the locations and details of projects that would be facilitated by Draft 2045 CAP measures and actions are not known at the time of this analysis, construction activities associated with such projects could obstruct major roadways and conflict with an emergency response or evacuation plan, which would be a significant impact. To reduce this impact, LA County would implement Mitigation Measure 3.15-1, which would require project applicants and construction contractors to coordinate with relevant LA County departments and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on roadway operations, emergency responders, and public safety in the surrounding area. Because any impacts on the implementation of an emergency response or evacuation plan would be identified and addressed before a related impact would occur pursuant to implementation of Mitigation Measure 3.15-1, the impacts associated with implementation of the Draft 2045 CAP measures and actions would be reduced to a less-than-significant level.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: Implementing Mitigation Measure 3.15-1 would reduce the impact to a less-than-significant level because the traffic control plan would avoid or substantially reduce any potential impairment of an emergency response or evacuation plan that may result during construction activities associated with projects facilitated by the Draft 2045 CAP measures and actions.

3.10.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts associated with hazards and hazardous materials, the geographic area of consideration (i.e., the cumulative impacts study area) consists of the unincorporated areas of Los Angeles County. Impacts could result at various locations within this area from the time when on-the-ground work in furtherance of a project facilitated by Draft 2045 CAP measures and actions is initiated and could last until such projects are decommissioned and the sites restored.

Criterion a)

Impact 3.10-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. (*Less-than-Significant Cumulative Impact*)

The 16 Superfund sites located in Los Angeles County are located primarily inland, between the San Fernando and Norwalk areas, and generally include landfills, manufacturing facilities, processing plants, and mining sites (Bredehoft 2021). As discussed above, several other hazardous materials sites are known to exist in the unincorporated areas. Construction and operational activities for past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015b; Los Angeles County 2021) and projects facilitated by the Draft 2045 CAP, would use standard construction equipment and materials, including fuel, oils, and lubricants, hydraulic fluid, paints and thinners, and cleaning solvents to maintain vehicles and motorized equipment. Such activities could pose a hazard to people or the environment unless handled in accordance with regulatory requirements. Similarly, the operation of landfills and manufacturing facilities could contribute to such hazards.

However, numerous laws and regulations regulate the transportation, handling, storage, and disposal of hazardous materials that lessen cumulative impacts. For example, the Health and Safety Code and the California Code of Regulations require preparation of a hazardous materials business plan/spill prevention control and countermeasures plan, or HMBP/SPCC plan, when conditions have been determined to warrant regulation. When required, such plans must be prepared prior to construction and/or operation. HMBPs include BMPs for the transport, storage, use, and disposal of hazardous materials and waste. HMBPs also include information regarding construction activities, worker training procedures, and hazardous materials inventory procedures. Refueling and general maintenance for construction equipment, such as changing fluids and lubricating parts, also would require sufficient containment capabilities and must follow measures outlined in an SPCC plan. Compliance with these independently enforceable obligations would ensure that hazardous materials cumulative impacts would not be significant, and that projects facilitated by the Draft 2045 CAP would not result in a cumulatively considerable contribution to cumulative impacts. Accordingly, the Project would have a less-than-significant cumulative impact regarding the routine use of hazardous materials.

Mitigation: None required.

Criterion b)

Impact 3.10-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The construction and operation of past, present, and reasonably foreseeable future projects would involve the transportation, storage, use, or disposal of a variety of hazardous materials, including PV panels, hydraulic fluid, diesel fuel, gasoline, grease, lubricants, paints, solvents, and adhesives. If, during past, present, and reasonably foreseeable future projects, hazardous materials were accidentally released into the environment, a potentially significant impact on the environment and/or public could result. As noted previously, numerous laws and regulations regulate the transportation, handling, storage, and disposal of hazardous materials. Nonetheless, given the broad use and storage of hazardous materials, including CdTe cells at solar facilities in the Antelope Valley and other unincorporated areas of Los Angeles County, and the potential for their accidental release, the cumulative impact of past, present, and reasonably foreseeable future projects added to the Project's impacts would be significant.

The Draft 2045 CAP would make a cumulatively considerable incremental contribution to this significant cumulative impact. The Draft 2045 CAP's contribution would be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) with the implementation of Mitigation Measure 3.10-2. With the implementation of this measure, the Project-specific, incremental contribution to impacts associated with reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment over the span of the Draft 2045 CAP, would not be cumulatively considerable because any Project-specific hazardous waste from broken CdTe modules would be properly disposed of if not recycled. Thus, cumulative impacts would be less than significant.

Mitigation: Implement Mitigation Measure 3.10-2.

Significance after Mitigation: The Project's incremental contribution would be less than cumulatively considerable (i.e., less than significant) because implementing Mitigation Measure 3.10-2 would ensure that hazardous waste from broken CdTe modules from projects facilitated by the Draft 2045 CAP would be disposed of properly if not recycled and would not result in an incremental contribution to a significant cumulative impact.

Criterion c)

Impact 3.10-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative adverse impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

Past, present, and reasonably foreseeable future projects that would handle hazardous materials or discharge hazardous emissions within 0.25 mile of a sensitive receptor are at risk of exposing

sensitive receptors to hazardous materials and emissions. Cumulative projects that include solar facilities may include the use of CdTe solar technology modules, which can be toxic if released to the environment. Given the broad use and storage of hazardous materials, including CdTe cells at solar facilities in Antelope Valley and other unincorporated areas of Los Angeles County, and for the potential for their accidental release in the vicinity of sensitive land uses, when the Project's impacts are added, the cumulative impact would be significant.

The Draft 2045 CAP would make a cumulatively considerable contribution to this significant cumulative impact. The Draft 2045 CAP's contribution would be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) with the implementation of Mitigation Measure 3.10-2. With the implementation of this measure, the Project-specific, incremental contribution to impacts associated with a release of hazardous emissions, materials, substances, or waste within 0.25 mile of sensitive land uses over the span of the Draft 2045 CAP, would not be cumulatively considerable, because any Project-specific hazardous waste from broken CdTe modules would be disposed of properly if not recycled. Cumulative impacts would be less than significant.

Mitigation: Implement Mitigation Measure 3.10-2.

Significance after Mitigation: The Project's incremental contribution would be less than cumulatively considerable (i.e., less than significant) because implementation of Mitigation Measure 3.10-2 would ensure that any hazardous waste from broken CdTe modules from projects facilitated by the Draft 2045 CAP would be disposed of properly if not recycled, and would not result in an incremental contribution to a significant cumulative impact.

Criterion d)

Impact 3.10-10: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative impacts related to being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but would not create a significant hazard to the public or the environment. (*Less-than-Significant Cumulative Impact*)

As discussed in Section 3.10.1.2, there are hazardous materials and waste sites in the unincorporated areas of the County, many of which are included on the Cortese List. If past, present, and reasonably foreseeable future projects are sited near hazardous materials and waste sites that have been included on the Cortese List, then the risk of creating a significant hazard to the public or environment would increase, as potentially contaminated soil and/or groundwater could be exposed during ground-disturbing activities. However, for all cumulative projects as well as projects facilitated by the Draft 2045 CAP measures and actions, the status of nearby sites on the Cortese List would be checked and would be planned accordingly to comply with the overseeing regulatory agency rules that require investigations and cleanup of hazardous materials sites to levels that no longer pose risks to people or the environment. Thus, cumulative impacts related to hazardous materials and hazardous waste sites would not be significant.

The Draft 2045 CAP would make a less-than-cumulatively- considerable and therefore less-than-significant incremental contribution to this cumulative impact, because the status of nearby sites on the Cortese List would be checked and projects facilitated by the Draft 2045 CAP would be planned accordingly to comply with the overseeing regulatory agency rules that require investigations and cleanup of hazardous materials sites to levels that no longer pose risks to people or the environment. Impacts would not be cumulatively considerable, and impacts would be less than significant.

Mitigation: None required.

Criterion e)

Impact 3.10-11: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative safety hazards or excessive noise for people residing or working in the project area. (*Less-than-Significant Cumulative Impact*)

There are 15 airports in Los Angeles County (ALUC 2004a), all located within 2 miles of at least a portion of the unincorporated County. Past, present, and reasonably foreseeable future projects proposed to be located within a delineated safety or noise hazard zone could result in a safety hazard or excessive noise for people residing or working in the area. However, all cumulative projects as well as projects facilitated by the Draft 2045 CAP measures and actions would comply with federal airport safety regulations and incorporate land use compatibility criteria that reduce the potential for them to be negatively affected by aircraft noise and aviation hazards. Thus, cumulative impacts related to airport safety and noise hazards would not be significant.

The Draft 2045 CAP would contribute a less-than-significant and less-than-significant incremental contribution to this cumulative impact because the projects that would be facilitated by the Draft 2045 CAP would comply with federal airport safety regulations and incorporate land use compatibility criteria that reduce the potential for them to be negatively affected by aircraft noise and aviation hazards. Impacts would not be cumulatively considerable and impacts would be less than significant.

Mitigation: None required.

Criterion f)

Impact 3.10-12: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative impairment of the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The General Plan includes a map of freeway and highway disaster routes, many of which cross through portions of the unincorporated County (County Planning 2015b). Past, present, and reasonably foreseeable future projects may require construction in major roadways that could hinder evacuation procedures. Thus, when the Project's impacts are added, a significant cumulative impact would exist related to impairment of the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

The Draft 2045 CAP would make a cumulatively considerable incremental contribution to this significant cumulative impact on emergency response and/or evacuation plans because projects facilitated by the Draft 2045 CAP could obstruct major roadways. This incremental contribution would be reduced to less than cumulatively considerable with implementation of Mitigation Measure 3.15-1, which would require project applicants and construction contractors to coordinate with relevant LA County departments and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on roadway operations, emergency responders, and public safety in the surrounding area. Cumulative impacts would be reduced to a less-than-significant level.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: The Project's incremental contribution would be less than cumulatively considerable (i.e., less than significant) because the traffic control plan would avoid or substantially reduce any Project-specific potential impairment of an emergency response or evacuation plan that may result during construction activities associated projects facilitated by the Draft 2045 CAP measures and actions.

3.10.2.5 Non-CEQA Public Concerns or Hazards

Recognizing there is a great deal of public interest and concern regarding potential health effects and hazards from exposure to EMFs, the following discussion provides information regarding EMFs as they relate to public health and safety. This discussion does not consider EMFs in the context of CEQA for determination of environmental impacts because there is no agreement among scientists that EMFs create a health risk and because there are no defined or adopted CEQA standards for defining health risks from EMFs. As a result, the EMF information provided below is for informational purposes.

Electric and Magnetic Fields

Solar panels and associated electrical transmission facilities, such as power lines and substations, create EMFs. EMFs attenuate rapidly with distance from the source. Given the setbacks and rights-of-way that future projects facilitated by the Draft 2045 CAP measures and actions would be required to follow, these measures and actions are not anticipated to result in levels of EMFs at nearby residences or other sensitive locations, such as schools or daycare facilities, that would result in adverse effects on public health or safety.

On January 15, 1991, the California Public Utilities Commission (CPUC) initiated an investigation to consider its role in mitigating the health effects, if any, of electric and magnetic fields from utility facilities and power lines. CPUC created a working group of interested parties, the California EMF Consensus Group, to advise on this issue. The California EMF Consensus Group's fact-finding process was open to the public, and its report incorporated public concerns. Its recommendations were filed with CPUC in March 1992. Based on the work of the California EMF Consensus Group, written testimony, and evidentiary hearings, CPUC's decision (93-11-013) was issued on November 2, 1993, to address public concern about possible EMF health effects from electric utility facilities. In August 2004, CPUC opened an Order Instituting

Rulemaking to update CPUC's policies and procedures related to EMFs emanating from regulated utility facilities. The final decision was issued in D.06-01-042. The decision's conclusions and findings included a statement that a direct link between exposure to EMF and human health effects has yet to be proven despite numerous studies, including a study ordered by CPUC and conducted by the California Department of Health Services.

This continues to be CPUC's position regarding standards for EMF exposure. The State of California has not determined that any risk would merit adoption of any specific limits or regulations regarding EMF levels from electric power facilities. Presently, there are no applicable federal, state, or local regulations related to EMF levels from power facilities. LA County agrees with the state's position in this regard.

Induced Current

In addition, stray voltage could occur if electrical equipment or solar panels were not maintained properly. Induced current or stray voltage has the potential for adverse health effects if not properly grounded. As part of the regular operations and maintenance measures of future utility-scale renewable energy projects, maintenance staff would examine solar panels during annual maintenance inspections throughout the operational life of the project to confirm proper grounding and ensure no stray voltage issues. Therefore, no health effects would be anticipated to occur from stray voltage.

Communication Signals

Future utility-grade solar and electrical transmission infrastructure projects that could be facilitated by the Draft 2045 CAP measures and actions may also affect communication signals due to EMF in two ways: (1) solar panels and their associated transmission lines may generate electromagnetic noise, which could interfere with telecommunications services such as radar, microwave, television, and radio transmissions; or, more commonly, (2) solar panels would create physical obstructions that distort communications signals. The types of communications systems that may be affected include microwave systems, off-air television broadcast signals, land mobile radio operations, and mobile telephone services. Future solar power and electrical transmission facility projects would comply with Federal Communications Commission requirements.

3.11 Hydrology and Water Quality

This section identifies and evaluates issues related to hydrology and water quality to determine whether the Project would result in a significant impact relating to surface water and groundwater quality, groundwater supplies, existing drainage patterns, flood hazard, LA County's Low Impact Development (LID) Ordinance, or inundation. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to hydrology and water quality suggest that future renewable energy projects facilitated by the Draft 2045 CAP would cause impacts related to the demand for groundwater to wash solar panels and control dust, as well as grading-related changes to existing drainage patterns.

3.11.1 Setting

3.11.1.1 Study Area

The study area for this analysis of impacts on hydrology and water quality consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of the County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2. The study area includes areas within the watersheds, groundwater recharge areas, and water quality control plan planning areas that could be affected by activities occurring in the unincorporated areas of the County.

3.11.1.2 Environmental Setting

Natural hydrologic areas within the County include marshes, lakes, ponds, streams, sloughs, and seasonal wetlands. Artificially created/developed areas within the County may include stormwater detention basins and other facilities or structures, flood control channels, street drains and gutters, roadside ditches, and road ruts. The overall geographic setting of the County results in a number of physiographic and environmental characteristics. A discussion of water features, resources, and hydrologic hazards and concerns is provided as follows.

Hydrologic Regions

A *hydrologic region* is an area drained by a river system, a closed basin, or a group of streams that form a coastal drainage area. Los Angeles County is split between two hydrologic regions: the South Coast Region and the Lahontan Region, with a small portion in the northwest corner of the County located in the Tulare Lake Hydrologic Region. The portion of the Lahontan Region that is in the County is the Antelope Valley Planning Area. The portion of the South Coast Region that is in Los Angeles County comprises all other areas of the County.

In the County, the water quality of each of these hydrologic regions is regulated by a different regulatory agency, called a *regional water quality control board* (RWQCB). RWQCBs implement both state- and federally mandated water quality regulations. The South Coast Region is regulated by the Los Angeles RWQCB, the Lahontan Region is regulated by the Lahontan RWQCB, and the Tulare Lake Region is regulated by the Central Valley RWQCB. The boundaries of the state's nine RWQCBs do not always correspond directly with the boundaries of its 10 hydrologic regions; however, in the County, the boundaries roughly coincide.

Watersheds

Watersheds are defined as areas of land where the water that is under it, or that drains off it, flows to the same place. There are eight major watersheds in Los Angeles County, some located solely within the County and some extending beyond the County: the Antelope Valley watershed, the Ballona Creek watershed, the Santa Clara River watershed, the Los Angeles River watershed, Sun Valley watershed, the Santa Monica Bay watershed, the Dominguez Channel, and the San Gabriel River watershed (LA County DPW 2022a).

Stormwater

Stormwater is created when a precipitation event leads to collection of water in pools and rivulets on either pervious or impervious surfaces. When sufficient water collects, it flows over the land, creating stormwater runoff. In natural areas, stormwater runoff generally flows toward streams, rivers, lakes, or coastal waters and infiltrates through the soil into groundwater. In developed areas, stormwater is generally either retained on-site, infiltrated through pervious areas such as bioswales and gardens, or directed into stormwater drainage systems. Stormwater collection is more difficult in developed areas and runoff is exacerbated, as pavement and structures generally do not allow for stormwater infiltration into the soil. In undeveloped or pervious areas, runoff occurs when the soil approaches saturation and no longer absorbs the precipitation. Stormwater runoff often becomes polluted by sediment and toxic contaminants, particularly in developed areas, where it flows over streets and sidewalks. Urban runoff conveyed through municipal storm drain systems is one of the causes of poor water quality at discharge locations in urban areas.

Stormwater Drainage

The sanitary sewers and the stormwater/flood control facilities in Los Angeles County are separate. Stormwater is either retained on parcels, infiltrated into the ground, or directed into a storm drain system. Stormwater runoff in unincorporated areas of the County is regulated by the National Pollutant Discharge Elimination System (NPDES) permit, the Standard Urban Stormwater Mitigation Plan (Los Angeles RWQCB 2020), and LA County's stormwater LID Ordinance, each described below in Section 3.11.1.3. These permits and plans regulate how stormwater runoff emanating from a particular plot of land or development is to be handled and whether it will be retained on-site, infiltrated, or directed into an existing or planned storm drain system. The Los Angeles County Department of Public Works (LA County DPW) determines the remaining capacity of existing or planned storm drain systems and informs project applicants of the capacity (Los Angeles County 2015a).

Storm Drain System

Discharges and runoff in each of the County's watersheds flow toward a variety of natural and engineered drainage channels. Principal drainages throughout the County are as follows (Los Angeles County 2015b):

- **Los Angeles River:** A drainage channel that flows from the San Fernando Valley Planning Area to Long Beach, which is in the Gateway Planning Area.
- **San Gabriel River:** A drainage channel that extends from the San Gabriel Mountains through the West and East San Gabriel Valley Planning Areas and the Gateway Planning Areas.
- **Rio Hondo:** A drainage channel in the Los Angeles Basin that connects the San Gabriel River to the Los Angeles River.
- **Dominguez Channel:** The main drainage within the Dominguez Watershed, which approximately overlaps the South Bay and Metro Planning Areas.
- **Santa Clara River:** The main drainage channel in the Santa Clarita Valley Planning Area.
- **Antelope Valley Watershed:** The majority of storm drains within the Antelope Valley Planning Areas discharge to vacant land.

Water Quality

More than a dozen different stormwater and wastewater pollutants, including metals, nutrients, indicator bacteria, organics, pesticides, trash, and other contaminants, are found in water bodies in the County in amounts significantly above established water quality standards. Sources of this pollution can be described through two categories: point sources and nonpoint sources.

Point Sources

Point sources are well-defined locations at which pollutants flow into water bodies (discharges from wastewater treatment plants and industrial sources, for example). These sources are controlled through regulatory systems including permits issued by the RWQCBs under the NPDES program (see Section 3.11.1.3).

Nonpoint Sources

Nonpoint sources of pollutants typically are derived from project site runoff caused by rain or irrigation and have been classified by the U.S. Environmental Protection Agency (USEPA) into one of the following categories: agriculture, urban runoff, construction, hydromodification, resource extraction, silviculture (forest cultivation), and land disposal. Nonpoint-source pollution is not addressed by the same regulatory mechanisms as those used to control point sources. Instead, in California, the State Water Resources Control Board (SWRCB) implements a Non-Point Source Program to minimize nonpoint-source pollution. This program describes a three-tiered approach: the voluntary use of best management practices (BMPs), the regulatory enforcement of the use of BMPs, and effluent limitations. Each RWQCB implements the least restrictive tier until more stringent enforcement is necessary (Los Angeles County 2015b).

Hydromodification

Hydromodification is one of the leading sources of impairment in streams, lakes, estuaries, aquifers, and other water bodies in the County. Three major types of hydromodification activities—channelization and channel modification, dams, and streambank and shoreline erosion—change a water body’s physical structure as well as its natural function. These changes can cause problems such as changes in flow, increased sedimentation, higher water temperature, lower dissolved oxygen, degradation of aquatic habitat structures, loss of fish and other aquatic populations, and decreased water quality. Proper management of hydromodification activities to reduce nonpoint-source pollution in surface and groundwater is important.

Impaired Water Bodies

Section 303(d) of the federal Clean Water Act (United States Code Title 33, Section 1251 [33 U.S.C. 1251]) requires states to identify waters that do not meet water quality standards after applying certain required technology-based effluent limits. These are referred to as *impaired* waterbodies. States are required to compile this information in a list and submit the list to the USEPA for review and approval. The SWRCB’s 2018 List of Water Quality Limited Segments includes 875 segments as impaired within the Los Angeles RWQCB’s jurisdiction, including segments of coastal shoreline, bays, rivers or streams, lakes, tidal wetlands, and estuaries (SWRCB 2021). For each impaired water body, states are required to develop a *total maximum daily load* (TMDL), the amount of pollution that a water body can receive while remaining in compliance with water quality standards. TMDLs have been established or are being established for the County’s impaired water bodies.

Areas of Special Biological Significance

The SWRCB designates ocean areas that require protection from undesirable alterations in natural water quality as *Areas of Special Biological Significance* (ASBSs). Federal and state policies prohibit the discharge of pollutants into areas designated as an ASBS. The SWRCB has designated 34 areas as ASBSs. Of those, six are located within the jurisdiction of the Los Angeles RWQCB (SWRCB 2022):

- **San Clemente Island (ASBS 23)** – This 49,163-acre ASBS is located at the southernmost of the Channel Islands. It is owned by the U.S. Navy. Key pollution threats include ordnance and other contaminants from continuous military operations.
- **Laguna Point to Latigo Point (ASBS 24)** – Two-thirds of this 11,842-acre ASBS lie along the coastline of Los Angeles County; the remainder lies along the coastline of Ventura County. Key pollution threats include hundreds of direct discharges from roads, landscapes, and businesses, as well as from partly treated sewage and septic leachfields near beaches and Santa Monica Bay.
- **Northwest Santa Catalina Island (ASBS 25)** – This 13,236-acre ASBS (from Isthmus Cove to Catalina Head) is the largest of four ASBSs off Catalina Island. Key pollution threats include drainage from the village of Two Harbors, an adjoining marina, and several youth camps in the area.

- **Western Santa Catalina Island (ASBS 26)** – This 2,247-acre ASBS extends from the north end of Little Harbor to Ben Weston Point. Key pollution threats include road and stormwater runoff.
- **Farnsworth Bank (ASBS 27)** – This ASBS includes 37 acres of marine habitat but no coastline. Its location as submerged habitat offshore of the island prevents it from having any direct land-based human pollution threats.
- **Southeast Santa Catalina Island (ASBS 28)** – This 2,755-acre ASBS includes 2.9 miles of coastline along the east end of the island. There are two direct discharges and three natural streams draining to the ASBS. Key pollution threats include runoff and aerial contamination from a large quarry, and possible dredging at an adjoining barge loading site. Much of the stone from the quarry is used to build jetties in Los Angeles County.

Typical Contaminants

The following are typical contaminants that have the potential to affect groundwater, surface water, and stormwater quality.

Metals can affect surface water quality by accumulating in sediments and fish tissues. This poses risks of toxicity, such as lowering the reproductive rates and life spans of aquatic animals and animals up the food chain. Metals can also alter photosynthesis in aquatic plants and form deposits in pipes. Metals in urban runoff can result from automobile use, industrial activities, water supply infrastructure corrosion, mining, or pesticide application. Atmospheric deposition can also contribute metals to waterbodies.

Petroleum products such as oil and grease are characterized as high-molecular-weight organic compounds. Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high-molecular-weight fatty acids. Introduction of these pollutants to water bodies is typical due to the widespread use and application of these products in municipal, residential, commercial, industrial, and construction areas. Elevated oil and grease content can decrease the aesthetic value of a waterbody, as well as its water quality. Although methyl tertiary butyl ether (better known as MTBE) is currently outlawed, previous uses of petroleum products can be a source of contamination. Current use regulations for volatile organic compounds ensure these chemicals are not used in amounts that would impact groundwater. Similarly, residual concentrations from petroleum products are a concern for water quality.

Increased amounts of **sediments**, greater than the amount that enters the water system by natural erosion, can cause many adverse impacts on aquatic organisms, water supply, and wetlands. Sedimentation can decrease transmission of light, which affects plant production and leads to loss of food and cover for aquatic organisms. It can change behavioral activities (nesting, feeding, mating) and adversely affect respiration, digestion, and reproduction. Contaminants and toxic substances can also be transported in sediments. Sediments can damage water treatment equipment, increasing treatment costs. They can reduce reservoir volume and flood storage and increase peak discharges.

Total dissolved solids (TDS) refers to the total concentration of all minerals, salts, metals, or cations/anions (positive/negative charged ions) that are dissolved in water. TDS is composed of inorganic salts (principally calcium, magnesium, potassium, sodium, bicarbonate, carbonate, chloride, and sulfate), and small amounts of organic matter that are dissolved in water. The primary source of TDS in groundwater is the natural dissolution of rocks and minerals, but septic tanks, agricultural runoff, and stormwater runoff also contribute. Increased salts in regional freshwater resources from mining, urban runoff, and construction can create stressful environments and even destroy habitat and food sources for wetland animals in aquatic and wetland habitats, as well as favoring salt-tolerant species, reducing the quality of drinking water, and potentially causing skin or eye irritations in people.

Groundwater

Groundwater Basins

When precipitation and surface water infiltrate naturally into the ground, they typically travel first through an unsaturated soil zone until they reach the *water table*, which is the layer where the soil is saturated. This layer of soil saturation is called a *groundwater basin* or *aquifer*. Aquifers can hold millions of acre-feet of water and extend for miles. Los Angeles County is underlain by numerous groundwater basins, listed in **Table 3.11-1, Groundwater Basins**. Except during times of drought, groundwater extraction accounts for nearly one-third of the water usage in the unincorporated areas. In rural areas, many households depend solely on private wells that tap into local groundwater sources.

**TABLE 3.11-1
 GROUNDWATER BASINS**

Planning Area	Groundwater Basin	Sub-Basins
Antelope Valley	Antelope Valley Groundwater Basin	NA
Santa Clarita Valley	Santa Clarita Valley Groundwater Basin	NA
San Fernando Valley	San Fernando Valley Groundwater Basin (also known as the Upper Los Angeles River Area)	<ul style="list-style-type: none"> • San Fernando Main Basin • Sylmar Basin • Verdugo Basin • Eagle Rock Basin
West and East San Gabriel Valley	San Gabriel Valley Groundwater Basin	<ul style="list-style-type: none"> • Main San Gabriel Basin • Upper San Gabriel Canyon Basin • Lower San Gabriel Canyon Basin • Wayhill Basin • Foothill Basin • Glendora Basin • Claremont Heights Basin • Live Oak Basin • Chino Basin • San Dimas Basin • Pomona Basin • Puente and Spadra Basins • Raymond Basin
Westside South Bay Metro Gateway	Coastal Plain Groundwater Basin	<ul style="list-style-type: none"> • Central Basin • West Coast Basin • Santa Monica Basin • Hollywood Basin

NOTE: NA = not applicable

SOURCE: Los Angeles County 2015b

Supply and Recharge

In the more urbanized areas of Los Angeles County, the natural groundwater recharge process is hampered by compacted soils and impervious surfaces associated with urbanization and development. Some open space areas of the County (such as the Antelope Valley Planning Area) has been subject to overdraft conditions for years: Although substantial opportunity for percolation exists, water demand is such that annual precipitation and groundwater recharge operations are not typically sufficient for basin recharge.

In an effort to mitigate groundwater depletion, water agencies in the County have developed strategies to recharge groundwater artificially. One strategy involves purchasing water imported from outside the County or using recycled water and injecting it or allowing it to percolate into groundwater basins. A second option involves placing imported water at spreading grounds, where it percolates into groundwater basins.

The Los Angeles County Flood Control District (LACFCD) engages in a variety of activities that help recharge groundwater basins. These activities include diverting stormwater or treated recycled wastewater into regional spreading grounds. The majority of this recycled water is provided by the County Sanitation Districts, with smaller amounts provided by the Water Replenishment District of Southern California, the City of Los Angeles, and the West Basin Municipal Water District (Los Angeles County 2015b).

Water Hazards

Flooding

Flooding in Los Angeles County can be induced by earthquakes or by intense rainfall. Storm events that are intense and frequent have been known to cause mudflow and flood hazards that have led to the destruction of property, injuries, and deaths in the County (Los Angeles County 2015b).

The unincorporated County includes floodplains that are designated by the Federal Emergency Management Agency (FEMA) and by the California Department of Water Resources. FEMA designates 100-year and 500-year floodplains as part of its National Flood Insurance Program (NFIP). In the unincorporated County, the majority of FEMA-designated floodplains are located in the Antelope Valley. Unincorporated areas of the Santa Clarita Valley also contain some FEMA-designated floodplains, concentrated around the Santa Clara River and its tributaries.

Dams, Reservoirs, and Levees

There are 103 dams in Los Angeles County, which hold billions of gallons of water in reservoirs. Dams can pose a hazard to life and property in the event that seismic activity compromises dam structures and triggers flooding. There are also numerous levees throughout the County. Since 1928, two dam failures and one near-failure have occurred in the County. The majority of inundation areas in the County are located in the urbanized areas of the unincorporated urban islands (Los Angeles County 2015b).

Tsunamis

A *tsunami* is a very large ocean wave caused by an underwater earthquake, volcanic eruption, or submarine landslide. Tsunamis can cause flooding to coastlines and inland areas less than 50 feet above sea level and within 1 mile of the shoreline. The travel time for a locally generated tsunami, from initiation at the source to arrival at coastal communities, can be 5 to 30 minutes.

The likelihood of catastrophic inundation of low-lying coastal areas as a result of a tsunami is low. The areas within the unincorporated County that have the potential to be susceptible to tsunami hazards consist of limited areas within the Santa Monica Mountains and Westside Planning Areas (California Geological Survey 2021). Within the Santa Monica Mountains Planning Area, the tsunami inundation areas, as mapped by the California Geological Survey, include Topanga State Beach and Topanga County Beach, east and west of the intersection of Pacific Coast Highway with Topanga Canyon Boulevard, and Leo Carrillo State Beach at the west end of Los Angeles County. Within the Westside Planning Area, the tsunami inundation area extends to just inland of the inland end of the marina in Marina del Rey, which is approximately 1.6 miles inland from the shoreline.

Seiches

A *seiche* is a surface wave in a completely or partially enclosed body of water, such as a lake, a reservoir, or an aboveground water storage tank. Areas located along the shoreline of inland water bodies are susceptible to inundation by a seiche. High winds, seismic activity, or changes in atmospheric pressure are typical causes of seiches. The size of a seiche and the affected inundation area is influenced by a variety of factors, which include the size and depth of the water body, elevation, source, and, if human-made, the structural condition of the body of water in which the seiche occurs.

In the unincorporated County, there are numerous aboveground water storage tanks, which could create flooding if strong ground shaking were to cause structural damage to the tank. Sloshing water can lift a water tank off its foundation or break the pipes that lead to the tank. The likelihood that an aboveground storage tank would break due to ground shaking is reduced through compliance with standards for steel and reinforced-concrete tank design issued by the American Water Works Association (2013) and the California Department of Public Health (2008).

Mudflow

Mudflows, also known as *debris flows*, are shallow water-saturated landslides that travel rapidly down slopes, carrying rocks, brush, and other debris. Areas within the County that are particularly susceptible to mudflow generally include canyons and areas along the bases of hillsides. Because most of the County's Planning Areas contain hillsides and canyons, mudflow has the potential to occur in most of the Planning Areas. The potential for mudflow to occur increases after a wildfire, as slopes become more susceptible to erosion. The LACFCD operates debris basins and inlets above many foothill communities to prevent mudflows from affecting the communities (LA County DPW 2022b).

3.11.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Clean Water Act of 1972, as amended

The Clean Water Act is the primary federal law governing water pollution. Its objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands. It is administered by USEPA in coordination with state governments. Its implementing regulations are codified at Code of Federal Regulations (CFR) Title 40, Subchapters D, N, and O (Parts 100–140, 401–471, and 501–503).

Section 401 – Water Quality Certification

Clean Water Act Section 401 establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the Clean Water Act, USEPA has implemented pollution control programs such as setting wastewater standards for industries and surface waters (USEPA 2022).

Section 402

Section 402 establishes the NPDES permit process. In California, NPDES permitting authority is delegated to and administered by the nine RWQCBs. Pursuant to Section 402, a discharge of any pollutant from a point source into navigable waters is prohibited unless an NPDES permit is obtained. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges flow directly to surface waters (USEPA 2021a).

Section 402(p) requires issuance of a stormwater permit for stormwater discharges from a municipal separate storm sewer system (MS4) serving a population of 100,000 or more. *Municipal separate storm sewer* means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutter, ditch, man-made channels, or storm drain) owned or operated by a state, city, town, borough, county, parish, district, association, or other public body having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or a tribe or an authorized tribal organization, or a designated and approved management agency under Section 208 of the Clean Water Act that discharges to waters of the United States (40 CFR 122.26[b][8]).

Section 404—Discharge of Dredged or Fill Material

Clean Water Act Section 404 is administered and enforced by the U.S. Army Corps of Engineers (USACE). It establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. The USACE administers the day-to-day program, including the determination of eligibility of projects for use of Categorical Exclusions and Nationwide Permits, and

review and consideration of individual permit decisions and jurisdictional determinations. The USACE also develops policy and guidance, and enforces Section 404 provisions (USEPA 2021b).

National Flood Insurance Act and Flood Disaster Protection Act

The 1968 National Flood Insurance Act and the 1973 Flood Disaster Protection Act restrict certain types of development on floodplains and provide for an NFIP (FEMA 1997). The purpose of these acts is to reduce the need for large, publicly funded flood control structures and disaster relief. The NFIP is a federal program administered by the Flood Insurance Administration of FEMA. It enables individuals who have property (a building or its contents) within the 100-year floodplain to purchase insurance against flood losses. FEMA works with the states and local communities to identify flood hazard areas and publishes a flood hazard boundary map of those areas. Floodplain mapping is an ongoing process; flood maps are updated regularly for both major rivers and tributaries because land uses and development patterns change.

Executive Order 11988, Flood Plain Management

The objective of Presidential Executive Order 11988, dated May 24, 1977 (42 Fed. Reg 11988), is the avoidance, to the extent possible, of long- and short-term adverse impacts associated with the occupancy and modification of the base floodplain (100-year floodplain), and the avoidance of direct and indirect support of development in the base floodplain wherever there is a practicable alternative. Under the executive order, the USACE must provide leadership and take action to do the following:

- Avoid development in the base floodplain unless it is the only practicable alternative.
- Reduce the hazard and risk associated with floods.
- Minimize the impact of floods to human safety, health, and welfare.
- Restore and preserve the natural and beneficial values of the base floodplain.

State Laws, Regulations, and Policies

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act; Water Code Section 13000 et seq.) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to this Act, the policy of the state is as follows:

- That the quality of all the waters of the state shall be protected.
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason.
- That the state must be prepared to exercise its full power and jurisdiction to protect the quality of water in the state from degradation.

The Porter-Cologne Act established nine RWQCBs (based on hydrogeologic barriers) and the SWRCB, which are charged with implementing its provisions and which have primary

responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews the RWQCBs' decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous NPDES-related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

The RWQCBs regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits and waste discharge requirements for point- and nonpoint-source discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge.

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as NPDES permitting program. Section 401 of the Clean Water Act gives the SWRCB the authority to review any proposed federally permitted or federally licensed activity that may affect water quality and to certify, condition, or deny the activity if it does not comply with state water quality standards. The Porter-Cologne Act also requires adoption of water quality control plans (basin plans) that contain the guiding policies of water pollution management in California.

A number of statewide water quality control plans have been adopted by the SWRCB. In addition, a basin plan has been adopted by each RWQCB and is updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the state and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. Statewide and regional water quality control plans include enforceable prohibitions against certain types of discharges, including those that may pertain to nonpoint sources. Portions of water quality control plans, the water quality objectives and beneficial use designations, are subject to review by USEPA; when approved, they become water quality standards under the Clean Water Act.

Sustainable Groundwater Management Act

On September 16, 2014, Governor Edmund G. Brown Jr. signed a three-bill package¹ known as the Sustainable Groundwater Management Act (SGMA), which created a framework for sustainable, local groundwater management by local agencies through groundwater sustainability agencies (GSAs) toward achieving sustainable groundwater management within 20 years. In September 2015, Governor Brown signed Senate Bill 13, which makes various technical, clarifying changes to SGMA, including its requirements for groundwater sustainability agency formation, the process for SWRCB intervention if no responsible agency is specified for a basin, guidelines for high- and medium-priority basins, and participation of mutual water companies in a groundwater sustainability agency.

The formation of GSAs for all basins that have been designated as high- and medium-priority groundwater basins was required by July 1, 2017. The Department of Regional Planning

¹ The three bills that make up SGMA are Assembly Bill 1739 by Assembly Member Roger Dickinson, Senate Bill 1319, and Senate Bill 1168 by Senator Fran Pavley.

represents LA County on two GSAs: the Santa Clarita Valley GSA and Santa Monica Basin GSA. Each GSA for these high- and medium-priority basins is charged with development of a groundwater sustainability plan (GSP) that details how sustainable groundwater management will be achieved within 20 years of implementing the GSP. The GSP is a tool used to help the GSA sustainably manage the basin. Final GSPs were approved for the Santa Clarita Valley and the Santa Monica Basin GSAs in January 2022 (Santa Clarita Valley GSA 2022; Santa Monica Basin GSA 2022).

Los Angeles County overlies several adjudicated groundwater basins: the Upper Los Angeles River Area Basin, the Antelope Valley Groundwater Basin, the Central and West Coast Groundwater Basins, and the San Gabriel Valley Groundwater Basin. Each of these adjudicated groundwater basins is exempt from SGMA with limited exceptions, for example, with respect to reporting and monitoring.

Lake or Streambed Alteration Program

The California Department of Fish and Wildlife (CDFW) is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, Section 1600 of the Fish and Game Code requires an entity to notify CDFW of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, or state or local government agency or public utility that proposes an activity that will result in any of the following:

- Substantially divert or obstruct the natural flow of any river, stream, or lake.
- Substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake.
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the floodplain of a body of water. If CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared.

National Pollutant Discharge Elimination System General Permits

Construction General Permit

The California Construction Stormwater Permit (Construction General Permit) (also known as Industrial General Permit), adopted by the SWRCB, regulates construction activities that include clearing, grading, and excavation resulting in soil disturbance of at least 1 acre of total land area. The Construction General Permit authorizes the discharge of stormwater to surface waters from construction activities. It prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges, and all discharges that contain a hazardous substance in

excess of reportable quantities established in 40 CFR 117.3 or 40 CFR 302.4, unless a separate NPDES permit has been issued to regulate those discharges. The Construction General Permit requires that all developers of land where construction activities will occur over more than 1 acre do the following:

- Complete a risk assessment to determine pollution prevention requirements pursuant to the three risk levels established in the Construction General Permit.
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the United States.
- Develop and implement a storm water pollution prevention plan (SWPPP), which specifies BMPs that will reduce pollution in stormwater discharges to the Best Available Technology Economically Achievable/Best Conventional Pollutant Control Technology standards.
- Perform inspections and maintenance of all BMPs.

To obtain coverage under the NPDES Construction General Permit, the entity designated by law as the Legally Responsible Person must electronically file all permit registration documents with the SWRCB before the start of construction. Permit registration documents must include the following:

- Notice of Intent
- Risk Assessment
- Site Map
- SWPPP
- Annual Fee
- Signed Certification Statement

Typical BMPs contained in SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, control pollutants from construction materials, and address post-construction runoff quantity (volume) and quality (treatment). The SWPPP must also include a discussion of the program to inspect and maintain all BMPs (SWRCB 2012).

Industrial General Permit

The Statewide General Permit for Storm Water Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (Industrial General Permit) implements the federally required stormwater regulations in California for stormwater associated with industrial activities discharging to waters of the United States (SWRCB 2018).

Regional and Local Laws, Regulations, and Policies

Water Quality Control Plan for the Los Angeles Region

The RWQCB has prepared a basin plan for the Los Angeles Region, which it describes as follows (Los Angeles RWQCB 2020, 2022):

Los Angeles Regional Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan: (i) designates beneficial uses for surface and ground waters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation

policy, and (iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.

The *Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watershed of Los Angeles and Ventura Counties* (Basin Plan) encompasses all coastal drainages flowing to the Pacific Ocean between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line, as well as the drainages of five coastal islands (Anacapa, San Nicolas, Santa Barbara, Santa Catalina, and San Clemente). In addition, the Los Angeles region includes all coastal waters within three miles of the continental and island coastlines. As the eastern boundary, formed by the Los Angeles County line, departs somewhat from the hydrologic divide, the Los Angeles and Santa Ana regions share jurisdiction over watersheds along their common border.

The Basin Plan assigns beneficial uses to surface water and groundwater such as municipal water supply and water-contact recreation to all waters in the basin. It also sets water quality objectives, subject to approval by the USEPA, intended to protect designated beneficial uses. These objectives apply to specific parameters (numeric objectives) and general characteristics of the water body (narrative objectives). An example of a narrative objective is the requirement that all waters must remain free of toxic substances in concentrations producing detrimental effects upon aquatic organisms. Numeric objectives specify concentrations of pollutants that are not to be exceeded in ambient waters of the basin. The Los Angeles RWQCB is involved in the regulation of several activities that are relevant to the consideration of the Basin Plan:

- Prepares, monitors compliance with, and enforces Waste Discharge Requirements, including NPDES permits.
- Implements and enforces local stormwater control efforts.
- Enforces water quality laws, regulations, and waste discharge requirements.
- Regulates general construction activity stormwater discharges.

Stormwater discharges composed entirely of runoff from qualifying construction activities may require regulation under the Construction General Permit issued by the SWRCB. Construction activities that qualify include clearing, grading, excavation, reconstruction, and dredge-and-fill activities that result in the disturbance of at least 1 acre and less than 5 acres of total land area. The evaluation of the plan does not generate the need for compliance with the Construction General Permit. The development of single-family residences would require permit coverage if the development would disturb an area greater than 1 acre of land. Additionally, the plan would require the consideration of a Standard Urban Stormwater Mitigation Plan as part of compliance with the NPDES General Construction Activity Storm Water Permit to reduce water quality impacts to the maximum extent practicable. A Standard Urban Stormwater Mitigation Plan is a report that includes one or more site maps, an identification of construction activities that could cause pollutants to enter the stormwater, and a description of measures or BMPs to control these pollutants to the maximum extent practicable.

County of Los Angeles General Plan

As part of the Conservation and Natural Resources Element of the 2035 General Plan, the LA County Board of Supervisors has adopted the following goals and policies for water quality initiatives related to local water resources (Los Angeles County 2015b):

Goal C/NR 5: Protected and useable local surface water resources.

Policy C/NR 5.1: Support the LID philosophy, which seeks to plan and design public and private development with hydrologic sensitivity, including limits to straightening and channelizing natural flow paths, removal of vegetative cover, compaction of soils, and distribution of naturalistic BMPs at regional, neighborhood, and parcel-level scales.

Policy C/NR 5.2: Require compliance by all County departments with adopted Municipal Separate Storm Sewer System (MS4), General Construction, and point source NPDES permits.

Policy C/NR 5.3: Actively engage with stakeholders in the formulation and implementation of surface water preservation and restoration plans, including plans to improve impaired surface water bodies by retrofitting tributary watersheds with LID types of BMPs.

Policy C/NR 5.4: Actively engage in implementing all approved Enhanced Watershed Management Programs/Watershed Management Programs and Coordinated Integrated Monitoring Programs/Integrated Monitoring Programs or other County-involved TMDL implementation and monitoring plans.

Policy C/NR 5.5: Manage the placement and use of septic systems in order to protect nearby surface water bodies.

Policy C/NR 5.6: Minimize point and non-point source water pollution.

Policy C/NR 5.7: Actively support the design of new and retrofit of existing infrastructure to accommodate watershed protection goals, such as roadway, railway, bridge, and other—particularly—tributary street and greenway interface points with channelized waterways.

Goal C/NR 6: Protected and usable local groundwater resources.

Policy C/NR 6.1: Support the LID philosophy, which incorporates distributed, post-construction parcel-level stormwater infiltration as part of new development.

Policy C/NR 6.2: Protect natural groundwater recharge areas and regional spreading grounds.

Policy C/NR 6.3: Actively engage in stakeholder efforts to disperse rainwater and stormwater infiltration BMPs at regional, neighborhood, infrastructure, and parcel-level scales.

Policy C/NR 6.4: Manage the placement and use of septic systems in order to protect high groundwater.

Policy C/NR 6.5: Prevent stormwater infiltration where inappropriate and unsafe, such as in areas with high seasonal groundwater, on hazardous slopes, within 100 feet of drinking water wells, and in contaminated soils.

Goal C/NR 7: Protected and healthy watersheds.

Policy C/NR 7.1: Support the LID philosophy, which mimics the natural hydrologic cycle using undeveloped conditions as a base, in public and private land use planning and development design.

Policy C/NR 7.2: Support the preservation, restoration and strategic acquisition of available land for open space to preserve watershed uplands, natural streams, drainage paths, wetlands, and rivers, which are necessary for the healthy function of watersheds.

Policy C/NR 7.3: Actively engage with stakeholders to incorporate the LID philosophy in the preparation and implementation of watershed and river master plans, ecosystem restoration projects, and other related natural resource conservation aims, and support the implementation of existing efforts, including Watershed Management Programs and Enhanced Watershed Management Programs.

Policy C/NR 7.4: Promote the development of multi-use regional facilities for stormwater quality improvement, groundwater recharge, detention/attenuation, flood management, retaining non-stormwater runoff, and other compatible uses.

Los Angeles County Code—Low Impact Development Ordinance

Title 12, Chapter 12.84 of the LA County Code contains the LID Ordinance, compliance with which is informed by the *County of Los Angeles Department of Public Works Low Impact Development Standards Manual* (LID Standards Manual) (LA County DPW 2014a). The ordinance is designed to promote sustainability and improve the County’s watersheds by preserving drainage paths and natural water supplies to retain, detain, store, change the timing of, or filter stormwater or runoff. All projects need to meet applicable water quality requirements, including LID requirements, as determined by LA County.

Compliance with the LID Ordinance involves the following LID standards:

- Mimic undeveloped stormwater runoff rates and volumes in any storm event up to and including a 50-year flood event.
- Prevent pollutants of concern from leaving the development site in stormwater as the result of storms, up to and including a water quality design storm event. (This refers to the flow rate–based design storm events for the water quality BMPs identified in the NPDES Municipal Stormwater Permit for the County.)
- Minimize hydromodification impacts on natural drainage systems.

Project design features and BMPs implemented to comply with the LID Ordinance could include the following:

- On-site infiltration, bioretention, or rainfall harvest of excess runoff.
- On-site storage or reuse of excess runoff (LA County Code, Chapter 12.84).

Los Angeles County Code—Stormwater and Runoff Pollution Control

Overall, LA County’s Stormwater and Runoff Pollution Control Program tracks industrial and commercial businesses in the unincorporated areas of the County to determine compliance with

the provisions of the Municipal NPDES Permit issued by the Los Angeles RWQCB. For key details about the program, see Title 12, Chapter 12.80 of the LA County Code, which prohibits certain discharges to the storm drain system, such as non-stormwaters that are not authorized by an NPDES permit, pesticides in concentration that exceed water quality objectives established by the RWQCB, and sanitary or septic waster or sewage.

Los Angeles County Code—Erosion and Sediment Control Plans

Title 26, Appendix J of the LA County Code contains the LA County Grading Code. This code includes regulations for erosion control and water quality for grading operations. NPDES compliance is required for all projects within the unincorporated areas of the County. Additionally, all active grading projects with grading proposed during the rainy season (October 15 to April 15) require an erosion and sediment control plan (ESCP) grading permits cannot be issued until an ESCP is approved or details for erosion control are included in the grading plan. ESCPs include specific BMPs to minimize the transport of sediment and protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. The BMPs shown in ESCPs must be installed on or before October 15. ESCPs are required to be revised annually or as required by the Building Official to reflect current conditions of a site.

For grading projects with a disturbed areas of 1 or more acres, the required state SWPPP may be used to fulfill LA County's ESCP requirements. As with an ESCP, a grading permit cannot be issued until the SWPPP has been submitted and approved by the LA County Building Official.

Los Angeles County Flood Control District Code

Chapter 21 of the LA County Flood Control District Code, Stormwater and Runoff Pollution Control, regulates discharges to LACFCD storm drains. The following discharges are prohibited under this code:

- Stormwater that contains pollutant concentrations exceeding or contributing to an exceedance of water quality standards.
- Non-stormwater discharges unless authorized by an NPDES permit and by a permit issued by the Chief Engineer of the LACFCD.
- Sanitary or septic waste swage from a property or residence, a recreational vehicle, a portable toilet, a water holding tank, etc.
- Pollutants, leaves, dirt, and other landscape debris.

Additionally, Chapter 21 requires that any industrial or commercial facility that must have an NPDES permit shall retain on-site and, upon request, make available to the LACFCD Chief Engineer, the following document as evidence of compliance with permit requirements:

- A copy of the NPDES permit or Notice of Intent to comply with a construction general permit to discharge stormwater associated with industrial activity.
- A waste discharge identification number or copy of the NPDES permit.
- A SWPPP and a monitoring program plan.

- Stormwater quality data.
- Evidence of facility self-inspection.

Los Angeles County Programs and Plans

Integrated Regional Water Management Plans

Integrated regional water management plans (IRWMPs) define a clear vision and strategy for the sustainable management of water resources in a specific region delineated by one or more watersheds. IRWMPs generally contain an assessment of current and future water demand, water supply, water quality, and environmental needs. They address the challenges for delivering a stable and clean supply of water for the public, including stormwater and urban runoff water quality, flood protection, water infrastructure needs, use of reclaimed water, water conservation, and environmental stewardship.

During the planning process, all stakeholders, including water distributors and purveyors, regional waterworks and sanitation districts, local public works departments, environmental organizations, nonprofits, and other vested interests, work together to develop common goals, objectives, and strategies for water use. Because water-related issues are addressed on a regional, watershed basis, these plans are instrumental in building consensus amongst the various stakeholders in the development and prioritization of an action plan that is complementary and leverages interjurisdictional cooperation, resources, and available funding. There are four IRWMP regions in the County:

- Antelope Valley IRWMP (LA County DPW 2019)
- Upper Santa Clara River IRWMP (LA County DPW 2018)
- Greater Los Angeles County IRWMP (LA County DPW 2014b)
- Los Angeles Gateway Region IRWMP (LA County DPW 2011)

Sediment Management Strategic Plan

Following wildfires in 2007 and 2009 that burned a large portion of Los Angeles County and led to an increased inflow of sediment and debris within LACFCD facilities, LACFCD developed a 20-year sediment management strategic plan, dated March 2013, for years 2012 through 2032 that pursues new alternatives for reducing the environmental and social impacts of sediment management (LA County DPW 2022b).

The *Sediment Management Strategic Plan 2012–2032* represents the results of a continuing dialogue about sediment management between LACFCD and numerous stakeholders in the region. The strategic plan provides an overview of sediment management issues, evaluates various strategies to help identify optimal solutions for sediment management, and identifies general steps that should be pursued to meet LACFCD's mission. The plan is guided by the following key objectives (LA County DPW 2022b):

- Maintaining flood risk management and water conservation.
- Recognizing opportunities for increased environmental stewardship.

- Reducing social impacts related to sediment management.
- Identifying ways to use sediment as a resource.
- Ensuring that the Flood Control District is fiscally responsible in decision making.

Floodplain Management Plan

LA County's 2020 Floodplain Management Plan identifies flood-related hazards, explains potential effects on structures and residents, explores possible preventive measures, and specifies how flood awareness outreach will be conducted (LA County DPW 2020). It also provides maps of flood hazard areas, adopting associated ordinances, and regulating and enforcing safe building practices. Together, compliance with LA County Flood Control District Code and the 2020 Floodplain Management Plan promotes flood protection in the County and maintains LA County's eligibility to participate in FEMA's NFIP.

Low Impact Development Standards Manual

In 2014, LA County prepared the LID Standards Manual to comply with the requirements of the MS4 permit issued in 2012 for stormwater and non-stormwater discharges in the coastal watersheds of Los Angeles County (CAS004001, Order No. R4-2012-0175; LA County DPW 2014a). This manual provides guidance for stormwater quality control measures in new development and redevelopment projects in the unincorporated areas of the County.

Project applicants within unincorporated areas of the County submit a LID plan for review and approval by the director of the LA County DPW. These plans must include a discussion of how their proposed project would comply with the requirements of LA County's LID Ordinance and LID Standards Manual. LID plans are required to provide the following:

- Identification of whether the project is a Designated or Non-Designated Project (if Designated, the LID plan must identify the project category).
- Feasibility of infiltration, including a percolation report prepared by a geotechnical engineer.
- Source control measure(s) proposed to be implemented.
- Calculation of the stormwater quality design volume.
- Discussion as to whether the harvest of stormwater runoff would be feasible.
- Stormwater quality control measures.
- Discussion of how the applicable water quality standards and TMDLs would be addressed (applies only to off-site mitigation projects).
- Proposed hydromodification controls and calculations.
- Proposed maintenance plan.

LID plans can be included in hydrology reports submitted to the LA County DPW, can be included in grading reports submitted to the LA County DPW, or can be prepared as a stand-alone document (LA County DPW 2014a).

Los Angeles County All-Hazards Mitigation Plan

LA County's General Plan Safety Element works in conjunction with the LA County All-Hazards Mitigation Plan, which is prepared by the Chief Executive Office–Office of Emergency Management, which sets strategies for natural and man-made hazards in the County (Los Angeles County Chief Executive Office 2019). The LA County All-Hazards Mitigation Plan was adopted by the LA County Board of Supervisors in May 2020 and also has been approved by FEMA and the California Emergency Management Agency. The plan includes a compilation of known, projected, and historical hazards in the County. The plan addresses all major natural and human-caused disasters that fall within the responsibilities of LA County departments within the geographic County.

The All-Hazards Mitigation Plan includes risk reduction measures for coastal areas to address tsunami inundation and flooding (Los Angeles County 2015a).

Natural Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 (42 U.S.C. 4001 et seq.) require FEMA to evaluate flood hazards. FEMA produces flood insurance rate maps (FIRMs) for local and regional planners that identify potential flood areas based on current conditions. FEMA conducts flood insurance studies to determine potential flood zones to be shown in the FIRMs. FEMA's revised FIRMs became effective for the unincorporated areas and the cities along the coast of Los Angeles County on April 21, 2021 (LA County DPW 2022c); for the unincorporated areas and the city of Santa Clarita in the Santa Clara River watershed on June 2, 2021 (LA County DPW 2022d); and for the unincorporated Triunfo and Lobo Canyon areas in April 2018 (LA County DPW 2022e). Using these studies, FEMA delineates Special Flood Hazard Areas on the FIRMs.

The Flood Disaster Protection Act requires owners of all structures within identified Special Flood Hazard Areas to purchase and maintain flood insurance as a condition of receiving federal or federally related financial assistance. Community members within designated areas are able to participate in the NFIP afforded by FEMA. The NFIP is required to offer federally subsidized flood insurance to property owners in communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the NFIP by providing a grant program for state and community flood mitigation projects. The Act also established the Community Rating System, a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing erosion hazards.

LA County, under the NFIP, has created standards and policies to ensure flood protection. These policies address development and redevelopment, compatibility of uses, required pre-development drainage studies, compliance with discharge permits, enhancement of existing waterways, cooperation with the USACE and the LACFCD for updating, and method consistency with the RWQCB and proposed BMPs. See Los Angeles County General Plan Housing Element Update Figure 4.10-1, *Flood Hazard Zones Policy Map* (Los Angeles County 2021), which shows flood hazard areas, including in the unincorporated areas.

Adjudicated Groundwater Basins

Four groundwater basins within the County are adjudicated, having a court-assigned Watermaster which imposes pumping limits to maintain safe yield as directed by a court order. These basins include the Upper Los Angeles River Area Groundwater Basin, Central and West Coast Groundwater Basin, Antelope Valley Groundwater Basin, and San Gabriel Valley Groundwater Basin. Groundwater pumping in each of these basins is regulated through their Watermasters, which produce annual reports listing total pumping compared with recharge and allowed pumping allotments.

3.11.2 Impact Analysis

3.11.2.1 Significance Criteria

To determine the level of significance of an identified impact, the following thresholds are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact on hydrology and water quality if it would:

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin;
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of a federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows which would expose existing housing or other insurable structures in a federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding;
- d) Otherwise place structures in federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements;
- e) Conflict with the Los Angeles County Low Impact Development Ordinance (Los Angeles County Code, Title 12, Ch. 12.84);
- f) Use onsite wastewater treatment systems in areas with known geological limitations (e.g., high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course);
- g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation; or
- h) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Based on the analysis documents in the Initial Study (Appendix A.2), it was concluded that implementation of Draft 2045 CAP measures and actions would result in no impact relative to criterion e) regarding a conflict with the LA County LID Ordinance, and criterion f) regarding on-site wastewater treatment systems. With respect to each of these criteria, the Initial Study concluded that requisite compliance with independently enforceable state and local requirements would ensure that adoption and implementation of the Draft 2045 CAP would have no impact related to the LID Ordinance or wastewater treatment systems. Accordingly, these considerations were not carried forward for more detailed review.

3.11.2.2 Methodology

This analysis evaluates the considerations identified in CEQA Guidelines Appendix G and identified by LA County, which are set forth in Section 3.11.2.1, *Significance Criteria*, to determine whether the Draft 2045 CAP, including future projects facilitated by Draft 2045 CAP measures and actions, would result in significant impacts on hydrology and water quality. Impacts related to hydrology and water quality are analyzed qualitatively. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.11.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed greenhouse gas reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic (PV) projects, and associated energy storage and distribution facilities, are qualitatively evaluated at a programmatic level.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of hydrology and water quality–related impacts. These and other relevant measures and actions include: Action T6.7, which could facilitate increased use of green hydrogen vehicles throughout the County (hydrogen fuel generation is a water-intensive process [see, for example, Beswick et al. 2021]); and the renewable energy and related infrastructure projects facilitated by Draft 2045 CAP measures and actions toward (a) decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (b) the

electrification of vehicles (e.g., Measure T6, Increase ZEV Market Share; Measure T7, Electrify LA County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (c) the electrification of buildings (Strategy 5, Decarbonize Buildings). These projects are relevant to the analysis because related development could degrade surface water or groundwater quality, decrease groundwater supplies, interfere with groundwater recharge, alter existing drainage patterns, or be developed in an area that would require additional flood-proofing. Specific hydrology and water quality impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Impact 3.11-1: Projects facilitated by the Draft 2045 CAP would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would have a direct adverse impact on water quality. Nonetheless, many of the projects facilitated by Draft 2045 CAP measures and actions would involve activities that may degrade surface water or groundwater quality or violate any water quality standards or waste discharge requirements as a result of new roadway and stormwater runoff, direct discharges from landscapes and businesses, dredge and fill activities, or releases from sewage or septic system upsets. For example, Action ES1.1 could result in improper closure of an existing oil or gas operation, with resulting impacts on surface or groundwater; and all new development, including buildings and solar generation projects facilitated by Draft 2045 CAP measures and actions decarbonizing buildings and vehicles, could require new roads with resulting stormwater runoff impacts.

However, all projects facilitated by Draft 2045 CAP measures and actions would be required to comply with independently enforceable requirements of the NPDES Construction General Permit and the LA County MS4 Permit as well as the other federal, state, and local requirements summarized in Section 3.11.1.3, *Regulatory Setting*. This includes compliance with the California Green Building Standards Code, which requires the incorporation of BMPs for materials and waste storage, handling, equipment and vehicle maintenance, and fueling to reduce potential discharge of polluted runoff from construction sites. It also would include adherence to the Construction General Permit, which requires future projects facilitated by Draft 2045 CAP measures and actions over 1 acre to prepare and implement a SWPPP for construction activities. As described above, a SWPPP is required to identify BMPs to control construction-related erosion and sedimentation in dry weather and stormwater runoff, thereby avoiding substantial degradation of water quality. Typical BMPs that could be incorporated into the SWPPP to protect water quality include: diverting off-site runoff away from the construction site; vegetating or revegetating areas as soon as feasible following grading activities; placing perimeter straw wattles to prevent off-site transport of sediment; conducting dust control activities during demolition and construction; using contained equipment wash-out and vehicle maintenance areas; maintaining erosion and sedimentation control measures throughout the construction period; and training all

on-site workers on general site housekeeping. Compliance with applicable federal, state, and local regulations would ensure that potential impacts of projects facilitated by Draft 2045 CAP measures and actions related to polluted runoff would be less than significant.

Compliance with applicable federal, state, and local regulations also would be required during the operation of projects facilitated by Draft 2045 CAP measures and actions, such as projects facilitated by Measure T1, which could result in residential densification near high-quality transit areas. Applicable requirements would include NPDES and MS4 permit requirements as well as site-specific SWPPP LID features to reduce the potential for pollution from incidental spills of vehicle oils and other chemicals that can be conveyed by storm and landscape irrigation flows. The NPDES permit would establish limits on pollutants discharged into waterways and require all new development and significant redevelopment to incorporate LID features to reduce the discharge of pollutants into receiving waters. Requisite implementation of BMPs would address water quality concerns, such as inadvertent release of pollutants (e.g., hydraulic fluids and petroleum); improper management of hazardous materials; trash and debris; and improper management of portable restroom facilities (e.g., regular service). Additionally, compliance with the California Green Building Standards Code would require source controls for outdoor material storage areas, outdoor trash storage/waste handling areas, outdoor loading/unloading dock areas, and building materials areas to improve water quality. Source controls also would include storm drain messages and signage and beneficial landscape irrigation practices. Compliance with these requirements, as well as with project-specific, site-specific mitigation measures or conditions imposed pursuant to individual CEQA and permitting processes, would ensure that degradation of water quality (surface and ground) would remain minimal and that projects facilitated by Draft 2045 CAP measures and actions would meet all waste discharge requirements. Therefore, neither the Draft 2045 CAP nor projects facilitated by Draft 2045 CAP measures and actions would violate any water quality standards. Resulting impacts would be less than significant.

Mitigation: None required.

Criterion b) Whether the Project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.

Impact 3.11-2: Projects facilitated by the Draft 2045 CAP would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. (*Less-than-Significant Impact*)

As discussed above, the Draft 2045 CAP is a policy document that does not include specific projects that would impede sustainable groundwater management of the groundwater basins identified in Table 3.11-1, *Groundwater Basins*.

Groundwater Supply

Projects facilitated by measures and actions supporting Draft 2045 CAP Strategy 7, Conserve Water, would likely have a beneficial impact on groundwater supplies. For example, projects

facilitated by Measure E5, Increase Use of Recycled Water and Gray Water Systems, and Measure E6, Reduce Indoor and Outdoor Water Consumption, would beneficially reuse water and thereby reduce a demand for new sources, including groundwater sources. Projects facilitated by Draft 2045 CAP measures and actions could affect groundwater supplies due to increased water demand; however, as discussed in Section 3.14, *Population and Housing*, any future housing projects facilitated by Draft 2045 CAP measures and actions would be aligned with population and housing forecasts already analyzed and approved pursuant to the General Plan Housing Element and the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Connect SoCal, adopted by the Southern California Association of Governments (SCAG 2020).

Water demand could be affected by projects facilitated by Draft 2045 CAP measures and actions toward (a) decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (b) the electrification of vehicles (e.g., Measure T6, Increase ZEV Market Share; Measure T7, Electrify LA County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (c) the electrification of buildings (Strategy 5, Decarbonize Buildings)—for example, for periodic solar PV panel washing. However, solar energy generation technologies use a modest amount of water (approximately 20 gallons per megawatt-hour) for dust control or cleaning. By comparison, a typical family uses about 20,000 gallons of water annually, which is more than the amount of water needed per megawatt of PV generation capacity (SEIA 2022).

Groundwater demand associated with utility-scale ground-mounted solar development would be expected to be low. The Antelope Valley, where such developments could be expected to be proposed, has been in a state of overdraft for decades, although the groundwater basin is now adjudicated. Proposed water sources for any future specific solar projects in the Antelope Valley are speculative. However, the fact that the Antelope Valley Groundwater Basin is an adjudicated basin, and the availability of new access to groundwater would be regulated strictly in accordance with the adjudication, makes it likely that water demand for new utility-scale solar projects (or hydrogen generation projects that require water as feedstock for electrolysis) in that area would be subject to replacement water requirements of the adjudication, supplying water from a different source that could include imported water or recycled water provided by a local water district with sufficient capacity. Further, utility-scale solar energy is not a large demand compared to the overall yield of the Antelope Valley Groundwater Basin. A utility-scale solar energy facility in Antelope Valley required less than 5 acre-feet per year for panel washing (City of Lancaster 2017). A contemporaneous study estimated annual extractions in the Antelope Valley at 31,528 acre-feet per year, with an estimated total natural recharge of 31,200–59,100 acre-feet per year and a safe yield of 110,000 acre-feet per year (City of Lancaster 2017). In light of this contemporaneous study, the use of 5 acre-feet per year for panel washing, plus existing annual extractions of 31,528 acre-feet per year, would be approximately the same as the low estimate of natural recharge, and well within the high estimate of natural recharge and safe yield. Approval from the Watermaster would be required to meet Antelope Valley solar project-related water demand for projects facilitated by Draft 2045 CAP measures and actions with groundwater.

The installation and operation of solar energy systems on rooftops do not involve water use (Los Angeles County 2015c).

In summary, impacts on groundwater supplies that would result from projects facilitated by Draft 2045 measures and actions are expected to be minimal. The population that would use these groundwater supplies would not exceed population growth forecasts, and demand from projects facilitated by Draft 2045 CAP measures and actions would be low, within safe yield, or would require replacement water as imposed by the Watermaster of the adjudicated groundwater basin. The existing regulatory framework for adjudicated groundwater basins imposed by the Watermaster would ensure that the Draft 2045 CAP measures and actions would not impede the sustainable management of groundwater. Therefore, neither the Draft 2045 CAP nor projects facilitated by Draft 2045 CAP measures and actions would substantially interfere with groundwater supplies. Resulting impacts would be less than significant.

Groundwater Recharge

Some projects facilitated by Draft 2045 CAP measures and actions (including those facilitated by Measure E1, Transition Existing Buildings to All-Electric, and Measure E4, Improve Energy Efficiency of Existing Buildings) would be limited to redevelopments and reuses of currently developed areas, and so would result in relatively minor increases in impervious areas. Other projects facilitated by Draft 2045 CAP measures and actions could cause an adverse impact on groundwater recharge due to a net increase in impermeable surfacing so as to preclude groundwater recharge. Such projects could include new “greenfield” construction for homes and other structures, new roads, and the compaction of ground due to grading for ground-mounted utility-scale solar or other renewable energy facilities and infrastructure. LA County has numerous regulations in place, including the LID Ordinance, that require facilities to be designed to facilitate on-site infiltration. Compliance with these requirements, as well as with project-specific, site-specific mitigation measures or conditions routinely imposed pursuant to individual CEQA and permitting processes, would ensure that neither the Draft 2045 CAP nor projects facilitated by Draft 2045 measures and actions would substantially interfere with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. The impact would be less than significant.

Mitigation: None required.

Criterion c) Whether the Project would substantially alter the existing drainage pattern of the site or area, including through the alteration of a federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding.

Impact 3.11-3: Projects facilitated by the Draft 2045 CAP would not substantially alter the existing drainage pattern of the site or area, including through the alteration of a Federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects. Projects facilitated by Measure T1, which could increase residential density near high quality transit areas, and by Measure T2, which could result in development to address the jobs/housing balance and increase mixed use, would most likely be located in currently developed areas, and so would have minimal potential to alter existing drainage patterns.

Nonetheless, other projects facilitated by Draft 2045 CAP measures and actions that would entail grading or greenfield development (such as renewable energy and infrastructure projects to decarbonize the building and energy sectors) could alter existing drainage patterns and thereby cause one or more of the identified potential impacts. Construction of projects facilitating Draft 2045 CAP measures and actions could temporarily disturb underlying soils and could result in exposure of soil to runoff. Without precautions, construction activities could produce pollutants in stormwater runoff. Compliance with NPDES permits and other local ordinances described above would control erosion and sedimentation as a result of urban development.

Title 26, Appendix J of the LA County Code contains the LA County Grading Code. This code includes regulations for erosion control and water quality for grading operations. NPDES compliance is required for all projects within the unincorporated areas of the County. Additionally, all active grading projects with grading proposed during the rainy season (October 15 to April 15) require an erosion and sediment control plan (ESCP), and grading permits cannot be issued until an ESCP is approved or details for erosion control are included in the grading plan. ESCPs include specific BMPs to minimize the transport of sediment and protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. The BMPs shown in ESCPs must be installed on or before October 15. ESCPs are required to be revised annually or as required by the Building Official to reflect current conditions of a site.

Under the NPDES MS4 Permit, certain categories of development and redevelopment projects must mimic predevelopment hydrology through infiltration, evapotranspiration, and rainfall harvest and use. Projects in the unincorporated areas within the Los Angeles RWQCB region and for which a LID plan is required must limit post-development peak stormwater runoff discharge rates to no greater than the estimated pre-development rate for developments where the increased peak, stormwater discharge rate would result in increased potential for downstream erosion. Construction projects in the Los Angeles RWQCB region and the Lahontan RWQCB region of one acre or more are required to implement BMPs for erosion control and sediment control pursuant

to the General Construction Permit. Furthermore, the General Plan Safety Element includes goals and policies that would discourage development within delineated flood hazard zones.

Operation of any future projects also would be independently subject to compliance with state regulation such as NPDES and MS4 permits, which would require implementation of BMPs to reduce erosion and siltation from discharge of runoff. Furthermore, LA County, under the NFIP, has created standards and policies to ensure flood protection. These policies address development and redevelopment, compatibility of uses, required pre-development drainage studies, compliance with discharge permits, enhancement of existing waterways, cooperation with the USACE and the LACFCD for updating, and method consistency with the RWQCB and proposed BMPs to protect development within flood risk areas. Compliance with these requirements would ensure that impacts of the Draft 2045 CAP and projects facilitating Draft 2045 CAP measures and actions to existing drainage patterns in the unincorporated areas of the County and in parts of adjoining counties in watersheds extending from the County would be less than significant.

Mitigation: None required.

Criterion d) Whether the Project would otherwise place structures in federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements.

Impact 3.11-4: Projects facilitated by the Draft 2045 CAP would not otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would place structures in an area where they would require additional flood-proofing and flood insurance. Projects facilitated by Draft 2045 CAP measures and actions would be required to be consistent with the General Plan, including the Housing Element, and zoning, the goals, policies, and requirements of which discourage new development in flood hazard or floodplain areas. Any projects facilitated by the 2045 CAP measures and actions that would be located within a federal 100-year flood hazard or County Capital Flood floodplain area would be independently subject to project design features intended to avoid or reduce impacts. Unavoidable impacts on flood hazard areas would be subject to approval from the Los Angeles County Flood Control District, which would mitigate the impacts through project designs and floodplain map revisions. These designs would ensure that flood hazards did not encroach onto areas not within the floodplain. Compliance with federal, state, and local requirements would ensure that impacts would be less than significant.

Mitigation: None required.

Criterion g) Whether the Project would, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation.

Impact 3.11-5: Projects facilitated by the Draft 2045 CAP would not, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation. (*Less-than-Significant with Mitigation Incorporated*)

The Draft 2045 CAP is a policy document that does not include projects that would risk release of pollutants due to project inundation in the event of a flood, tsunami, or seiche. However, future projects facilitated by Draft 2045 CAP measures and actions could do so. Nonetheless, according to the General Plan, several areas have been mapped as a flood hazard zones, and the entire County coastline is considered a tsunami hazard area (Los Angeles County 2015a, 2015c). Thus, there is potential for projects facilitated by Draft 2045 CAP measures and actions to be located in or near a flood hazard, tsunami, or seiche zone and, as a result, become inundated.

Although adoption of the Draft 2045 CAP would not directly result in the release of pollutants, future projects facilitated by Draft 2045 CAP measures and actions could do so. See Impact 3.10-1 in Section 3.10, *Hazards and Hazardous Materials*, which concludes that projects facilitated by Draft 2045 CAP measures and actions would result in a less-than-significant impact regarding the potential to create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. However, Impact 3.10-2 concludes that a significant impact would result (pre-mitigation) regarding the potential for projects facilitated by Draft 2045 CAP measures and actions to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste from solar PV projects into the environment.

Federal, state, and local requirements discourage new development in flood hazard or floodplain areas, and compliance with project-specific, site-specific mitigation measures and conditions of approval imposed as part of a state or local discretionary authorization process would further reduce the potential for the Project to risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone. For example, compliance with LA County regulations would require risk assessments of flooding from failure of aboveground water storage tanks for any future residential developments downgrade from such storage tanks. If such assessments determine that a proposed building would be affected by such flooding, existing regulations would require either that the building pad for the proposed development be raised above the flood elevation; or that improvements be made to the water tank to reduce the probability and/or consequence of tank failure, where the owner and/or manager of an aboveground storage tank is willing to allow such improvements. The resulting impact would be less than significant, with the exception of risk of pollutant releases from solar PV project hazardous waste that is improperly stored or disposed of, which would be a significant impact.

Mitigation: Implement Mitigation Measure 3.10-2.

Significance after Mitigation: Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste is properly managed. The impact would be less than significant with mitigation incorporated.

Criterion h) Whether the Project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Impact 3.11-6: Projects facilitated by the Draft 2045 CAP would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not propose any project that would conflict with or obstruct implementation of a basin plan or sustainable groundwater management plan. Nonetheless, projects facilitated by Draft 2045 CAP measures and actions could conflict with implementation of such plans if they were to result in violation of water quality standards or require groundwater extraction inconsistent with a groundwater management plan.

Projects facilitated by the Draft 2045 CAP measures and actions would be subject to water quality standards imposed by NPDES permits, including stormwater discharge permits that would impose BMPs to ensure protection of beneficial uses of surface waters governed by the Basin Plan. Projects that would require direct extraction of groundwater would be subject to approval from groundwater sustainability agencies or a Watermaster to ensure consistency with the groundwater sustainability plans. Projects facilitated by Draft 2045 CAP measures and actions would support development already allowed under the General Plan land use assumptions (including the Housing Element) and SCAG's Connect SoCal projections. Further, any future projects would be independently subject to compliance with state regulations such as NPDES and MS4 permits, which would require implementation of BMPs and development to reduce discharge of runoff and maintain water quality. All projects facilitated by Draft 2045 CAP measures and actions would be subject to enforceable requirements of the of the basin plan and SGMA. This requisite compliance would assure that projects facilitating Draft 2045 CAP measures and actions would have less-than-significant impact relative to this criterion.

Mitigation: None required.

3.11.2.4 Cumulative Impacts

For the purposes of this analysis of hydrology and water quality impacts, the geographic area of consideration (i.e., the cumulative impacts study area) comprises the hydrologic regions, major watershed areas, regional groundwater recharge areas, and groundwater basins in the County, inclusive of both incorporated and unincorporated areas. Impacts could result at various locations within these areas from the initiation of on-the-ground work in furtherance of a project facilitated by Draft 2045 CAP measures and actions until such projects are decommissioned and the sites restored.

Criterion a)

Impact 3.11-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (*Less-than-Significant Cumulative Impact*)

The ongoing impacts of past projects are reflected in the environmental setting described in Section 3.11.1.2, including the “impaired” status of 875 segments of coastal shoreline, bays, rivers or streams, lakes, tidal wetlands, and estuaries within the jurisdiction of the Los Angeles RWQCB pursuant to Section 303(d) of the Clean Water Act (SWRCB 2021). For each of these impaired water body segments, TMDLs have been established or are being established to identify the amount of pollution that a water body can receive while remaining in compliance with water quality standards. In addition to the Project, present and reasonably foreseeable future projects would be developed in accordance with requirements of federal, state, and local laws (including the housing and other elements of the General Plan, with the various area plans, ordinances of the LA County Code), and with the mitigation measures or conditions of approval imposed as part of any project-specific CEQA and permitting processes. Nonetheless, the combined impact of cumulative projects, together with projects facilitated by Draft 2045 CAP measures and actions, could result in violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Thus, a significant adverse cumulative impact could occur related to violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Future projects would be independently subject to compliance with state regulation such as NPDES and MS4 permits, which would require implementation of BMPs and development to reduce discharge of runoff and maintain water quality. Projects facilitated by Draft 2045 CAP measures and actions would contribute a less than cumulatively considerable incremental contribution to the cumulative impact. This incremental contribution would not be cumulatively considerable because compliance with applicable federal, state, and location requirements would avoid or reduce impacts. For example, the Construction General Permit and the LA County MS4 Permit are designed to limit adverse impacts on water quality. A less-than-significant cumulative impact would result.

Mitigation: None required.

Criterion b)

Impact 3.11-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative decreases groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. (*Less-than-Significant Cumulative Impact*)

Water demand in the unincorporated areas of Los Angeles County is such that annual precipitation and groundwater recharge operations typically are not sufficient for basin recharge in areas such as the Antelope Valley, which has been experiencing overdraft conditions for

decades. Therefore, construction and operational activities associated with past, present, and reasonably foreseeable future projects that would draw from groundwater or add substantial areas of impermeable surfaces could result in decreases groundwater supplies or interfere substantially with groundwater recharge such that the projects may impede sustainable groundwater management of the basin. Thus, together with impacts of projects facilitated by Draft 2045 CAP measures and actions, a significant adverse cumulative impact could occur related to decreases groundwater supplies or interfere substantially with groundwater recharge such that sustainable groundwater management of the basin may be impeded.

All projects facilitated by Draft 2045 CAP measures and actions would be subject to enforceable requirements of the of the Basin Plan, SGMA, and Watermaster-imposed pumping restrictions. Further, LA County has numerous regulations in place, including the LID Ordinance, that require facilities to be designed to facilitate on-site infiltration to maintain groundwater recharge. Compliance with these requirements would ensure that the Draft 2045 CAP would contribute a less than cumulatively considerable incremental contribution to any depletion of groundwater. This less-than-significant incremental contribution would not be cumulatively considerable because the Draft 2045 CAP would not cause the population that would potentially use these groundwater supplies to exceed forecasts; and because the demand for groundwater would be managed under SGMA or Watermaster-imposed pumping limits. A less-than-significant cumulative impact would result.

Mitigation: None required.

Criterion c)

Impact 3.11-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative alterations to the existing drainage pattern of the site or area. (*Less-than-Significant Cumulative Impact*)

Construction and operational activities associated with past, present, and reasonably foreseeable future projects that involve substantial ground disturbance could result in alterations to the existing drainage patterns. When added to impacts of projects facilitated by Draft 2045 CAP measures and actions, a significant adverse cumulative impact could occur related to alterations to the existing drainage pattern.

Projects in the unincorporated areas within the Los Angeles RWQCB region are subject to the LID Standards Manual, which limits post-development peak stormwater runoff discharge rates to no greater than the estimated pre-development rate to reduce the potential for downstream erosion. Under the NPDES MS4 Permit, certain categories of development and redevelopment projects must mimic predevelopment hydrology through infiltration, evapotranspiration, and rainfall harvest and use. Furthermore, LA County, under the NFIP, has created standards and policies that require predevelopment drainage studies to protect development within flood risk areas. Future projects would be independently subject to compliance with state and federal regulations minimizing impacts associated with drainage modifications, including the NFIP and Clean Water Act requirements. The Draft 2045 CAP would result in a less than cumulatively considerable contribution to cumulative impacts to drainages in the County. A less-than-significant cumulative impact would result.

Mitigation: None required.

Criterion d)

Impact 3.11-10: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative placement of structures in federal 100-year flood hazard or County Capital Flood floodplain areas, which would require additional flood-proofing and flood insurance requirements. (*Less-than-Significant Cumulative Impact*)

Construction and operational activities associated with past, present, and reasonably foreseeable future projects (including the Housing and other elements of the General Plan, the various area plans, and ordinances of the LA County Code) could result in placement of structures in federal 100-year flood hazard or County Capital Flood floodplain areas that would require additional flood-proofing and flood insurance requirements. Thus, added to impacts of projects facilitated by Draft 2045 CAP measures and actions, a significant adverse cumulative impact could occur related to placement of structures in federal 100-year flood hazard or County Capital Flood floodplain areas, which would require additional flood-proofing and flood insurance requirements.

LA County, under the NFIP, has created standards and policies that require pre-development drainage studies to protect development within flood risk areas. Future projects would be independently subject to compliance with state and federal regulations minimizing impacts associated with drainage modifications, including the NFIP and Clean Water Act requirements. The Draft 2045 CAP would result in a less than cumulatively considerable contribution to cumulative impacts to flood hazards in the County. A less-than-significant cumulative impact would result.

Mitigation: None required.

Criterion g)

Impact 3.11-11: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

Construction and operational activities associated with past, present, and reasonably foreseeable future projects could result in flood hazard, tsunami hazard, or seiche zones, or risk release of pollutants due to project inundation if placed in one of these hazard areas. Thus, added to impacts of projects facilitated by Draft 2045 CAP measures and actions, a significant adverse cumulative impact could occur related to flood hazard, tsunami, or seiche zones, or the risk of a release of pollutants due to project inundation.

Federal, state, and local requirements discourage new development in flood hazard or floodplain areas. Compliance with project-specific, site-specific mitigation measures and conditions of approval imposed as part of a state or local discretionary authorization process would further

reduce the potential for the Project to risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone. Future projects would be independently subject to compliance with state and federal regulations minimizing impacts associated with flood risk, including the NFIP and Clean Water Act requirements. The Draft 2045 CAP would result in a less than cumulatively considerable contribution to cumulative impacts related to flood, tsunami, or seiche water quality hazards in the County, with the exception of risk of pollutant releases from solar PV project hazardous waste that is improperly stored or disposed of, which would be significant impact that is cumulatively considerable.

Mitigation: Implement Mitigation Measure 3.10-2.

Significance after Mitigation: Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste is properly managed. The impact would be less-than-cumulatively-considerable and less than significant with mitigation incorporated.

Criterion h)

Impact 3.11-12: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (*Less-than-Significant Cumulative Impact*)

Construction and operational activities associated with past, present, and reasonably foreseeable future projects could result in conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Thus, when added to impacts of projects facilitated by Draft 2045 CAP measures and actions, a significant adverse cumulative impact could occur related to conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Projects facilitated by the Draft 2045 CAP measures and actions would be subject to water quality standards imposed by NPDES permits, including stormwater discharge permits that would impose BMPs to ensure protection of beneficial uses of surface waters governed by the Basin Plan. Projects that would require direct extraction of groundwater would be subject to approval from groundwater sustainability agencies or a Watermaster to ensure consistency with the groundwater sustainability plans. Projects facilitated by Draft 2045 CAP measures and actions would support development already allowed under the General Plan land use assumptions (including the Housing Element) and SCAG's Connect SoCal projections. Further, any future projects would be independently subject to compliance with state regulations such as NPDES and MS4 permits, which would require implementation of BMPs and development to reduce discharge of runoff and maintain water quality. All projects facilitated by Draft 2045 CAP measures and actions would be subject to enforceable requirements of the of the Basin Plan and SGMA. As a result of these existing regulations, the Draft 2045 CAP would result in a less than cumulatively considerable contribution to cumulative impacts on water quality or groundwater resources managed under water quality control plans or sustainable groundwater management plans. A less-than-significant cumulative impact would result.

Mitigation: None required.

3.12 Land Use and Planning

This section evaluates land use and planning issues to determine whether the Draft 2045 CAP would result in a significant impact related to a physical division of an established community or conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to land use and planning request that the EIR demonstrate consistency of the Draft 2045 CAP with *OurCounty: Los Angeles Countywide Sustainability Plan* (OurCounty Sustainability Plan) and Connect SoCal (SCAG 2020), and that it state that new subdivisions in very high fire hazard severity zones are prohibited.

3.12.1 Setting

3.12.1.1 Study Area

The study area for this analysis of impacts related to land use and planning consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of the County. See **Figure 2-1, *Map of Unincorporated Los Angeles County***, in Chapter 2.

3.12.1.2 Environmental Setting

This section describes the existing land use resources present in the unincorporated areas of Los Angeles County. This information has been drawn and modified from the *Los Angeles County General Plan 2035* and the *Los Angeles County General Plan Update Draft Environmental Impact Report* (County Planning 2014, 2015).

Existing Land Use Pattern

With approximately 4,083 square miles, including a 75-mile stretch of the Pacific coast of Southern California, Los Angeles County is geographically one of the largest counties in the United States. Los Angeles County is bordered to the southeast by Orange County and San Bernardino County, to the north by Kern County, and to the west by Ventura County. Los Angeles County also includes two offshore islands: Santa Catalina Island and San Clemente Island.

Los Angeles County includes 88 cities and approximately 2,650 square miles of unincorporated area. The unincorporated areas are home to approximately one million people. See **Figure 3.1-1, *Regional Vicinity Map***, in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. Regional environmental planning considerations and the local, state, and federal agencies with

jurisdiction over their implementation and enforcement are described in Section 3.12.1.3, *Regulatory Setting*, to aid in the understanding of how changes facilitated by the Project could affect the existing environment.

The unincorporated areas in northern Los Angeles County are covered by large amounts of sparsely populated land, including Angeles National Forest and parts of Los Padres National Forest and the Mojave Desert. In the western portion of Los Angeles County, the unincorporated areas include Marina del Rey and the Santa Monica Mountains. The unincorporated areas in southern and eastern Los Angeles County consist of many noncontiguous land areas, often referred to as *unincorporated urban islands*, including areas in South Los Angeles, East Los Angeles, and the San Gabriel Valley.

Existing Land Uses

Existing land use categories within the County are summarized in **Table 3.12-1, Summary of Existing Land Use Categories in Unincorporated Los Angeles County**. Within these categories, diverse land uses include residential, rural, commercial, industrial, natural resources, public and semi-public (office, institutional), and mixed uses (County Planning 2015). The San Gabriel Mountains, Verdugo Hills, Santa Susana Mountains, Simi Hills, Santa Monica Mountains, and Puente Hills shape the topography within the region. Additional details about existing land uses are summarized in Section 5.10 of the General Plan EIR, the setting and policies of which are incorporated by reference (County Planning 2014, 2015).

**TABLE 3.12-1
 SUMMARY OF EXISTING LAND USE CATEGORIES IN UNINCORPORATED LOS ANGELES COUNTY**

Land Use Type	Acres
Residential	51,480
Rural	641,321
Commercial	5,268
Industrial	7,304
Natural Resources ^a	844,224
Public and Semi-Public	79,920
Mixed Use	291
Specific Plan ^b	13,556
Other ^c	1,080
Total	1,644,444

NOTES:

- a. "Natural Resources" includes all natural resource and categories (e.g., natural areas, developed parks waterways, golf courses) and military areas (San Clemente Island and Edwards Air Force Base).
- b. Specific plans include a combination of land uses.
- c. Some area and community plans have special categories that do not fit into the scheme of the Land Use Legend categories (such as "special use sites," parking areas, and senior citizen density bonus areas).

SOURCE: County Planning 2015

3.12.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, and policies related to land use apply to the Project, and only one set of federal regulations applies to the use of airspace, as discussed below.

Federal Aviation Administration

The authority of the Federal Aviation Administration (FAA) over proposed projects is defined in Code of Federal Regulations Title 14, Part 77 (14 CFR 77), “Safe, Efficient Use, and Preservation of the Navigable Airspace.” The proponent of any project proposed within or near an airport, as described in “Construction or Alteration Requiring Notice,” is required to coordinate with the FAA to ensure that the construction and operation of the proposed project is consistent with all FAA requirements (14 CFR 77.9).

State Laws, Regulations, and Policies

State Planning and Zoning Law

State planning law (Government Code Section 65300) requires every city and county in California to adopt a comprehensive, long-term general plan for the physical development of the jurisdiction, and of any land outside its boundaries that, in the planning agency’s judgment, bears relation to its planning (the city or county’s *sphere of influence*). A general plan should consist of an integrated and internally consistent set of goals and policies grouped by topic into a set of elements and guided by a jurisdiction-wide vision. State law requires that a general plan address seven elements or topics (land use, circulation, housing, conservation, open space, noise, and safety) and allows city or county discretion regarding the inclusion of additional topics and the arrangement and content of the plan as a whole. Additionally, each specific and applicable requirement in the state planning law should be examined to determine whether there are environmental issues in the community that the general plan should address, such as hazards or flooding.

Government Code Section 65302 et seq.

California law (Government Code Section 65302 et seq.) requires each city and county to include a land use element in its general plan. The land use element must designate the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, greenways as defined in Civil Code Section 816.52, and other categories of public and private uses of land.

Government Code Section 65302(c) states that each local agency in California must include a housing element in its general plan as provided in Government Code Section 65580 et seq.

Government Code Section 65580 et seq.

Government Code Section 65580 et seq. requires each local agency to consider economic, environmental, and fiscal factors, as well as community goals as set forth in the general plan to prepare and adopt a housing element. The housing element must identify and analyze existing and

projected housing needs within the city or county and include statements of the jurisdiction's goals, policies, quantified objectives, and scheduled programs to preserve, improve, and develop housing. In compliance with Section 65583(a)(3), housing elements must include an inventory of land suitable for residential development, including vacant sites and sites having potential for redevelopment, and an analysis of the relationship of zoning and public facilities and services to these sites.

Sustainable Communities and Climate Protection Act of 2008

Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008, was enacted in 2008 and relates to regional land use and transportation policies to reduce statewide greenhouse gas (GHG) emissions. The law requires the state's 18 metropolitan planning organizations to adopt sustainable community strategies that, if implemented, would help each region achieve their respective targets established by the California Air Resources Board for reducing GHG emissions from automobiles and light trucks. The Southern California Association of Governments (SCAG) adopted its updated Regional Transportation Plan and Sustainable Communities Strategy in October 2020 to address the requirements of Senate Bill 375.

California Coastal Act

Pursuant to the California Coastal Act of 1976, the California Coastal Commission partners with coastal cities and counties such as LA County to plan and regulate the use of land and water in the coastal zone. Development activities generally require a coastal permit from either the California Coastal Commission or the local government. The Coastal Act broadly defines *development activities* to include (among others) construction of buildings, divisions of land, and activities that change the intensity of land use or public access to coastal waters.

The Coastal Act includes specific policies that address issues such as shoreline public access and recreation, lower-cost visitor accommodations, protection of terrestrial and marine habitats, visual resources, landform alteration, agricultural lands, commercial fisheries, industrial uses, water quality, offshore oil and gas development, transportation, development design, power plants, ports, and public works. The policies of the Coastal Act constitute the statutory standards applied to planning and regulatory decisions made by the commission and by local governments.

Regional and Local Laws, Regulations, and Policies

Los Angeles County General Plan 2035

The General Plan is a long-range planning document that, alongside the zoning code, guides development in unincorporated Los Angeles County. It was adopted on October 6, 2015, and provides a policy framework for how and where the unincorporated areas would grow through the year 2035. The General Plan also establishes goals, policies, and programs to foster healthy, livable, and sustainable communities.

General Plan Planning Areas

The General Plan identifies 11 planning areas. The establishment of planning areas provides a mechanism for local communities to work with LA County to develop coordinated plans that

respond to each planning area’s unique and diverse character. According to the *State of California General Plan Guidelines* (OPR 2017), an *area plan* is a planning tool that focuses on a particular region or community within the overall general plan area. An area plan is adopted as an amendment to the county general plan. It refines the policies of the county general plan as they apply to a smaller geographic area and is implemented by ordinances and other discretionary actions, such as zoning regulations and community standards districts. The area plan must be internally consistent with the general plan, but it need not address all required elements of the general plan when the overall general plan satisfies these requirements.

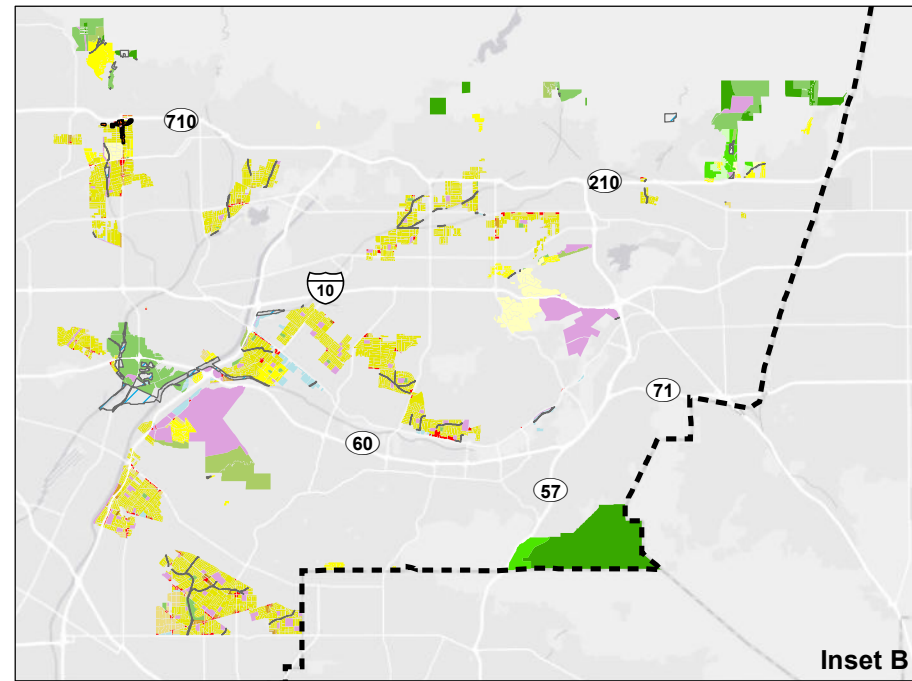
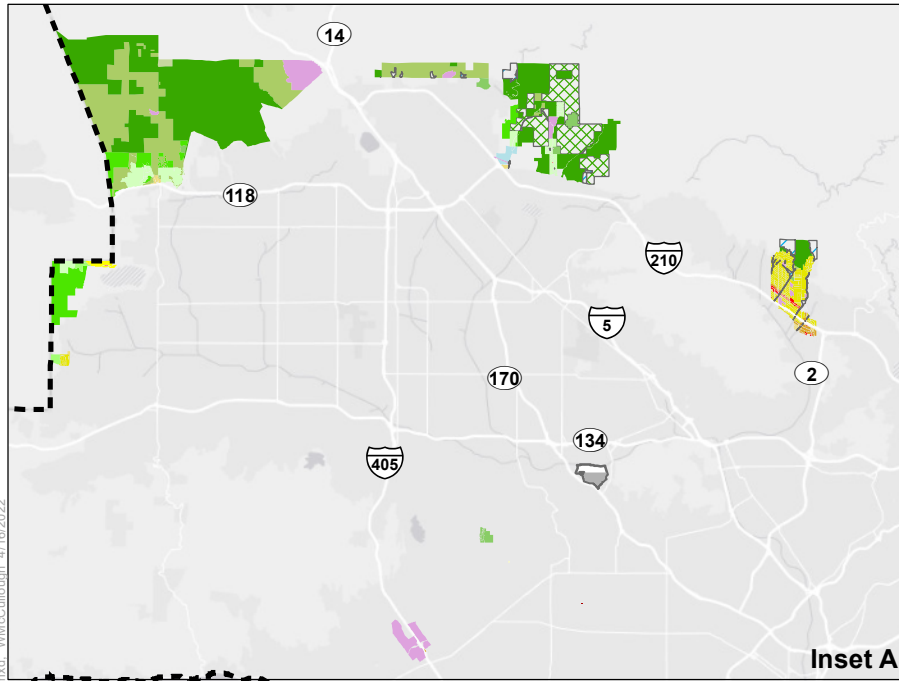
LA County has adopted three area plans: the Antelope Valley Area Plan, Santa Clarita Valley Area Plan, and Santa Monica Mountains North Area Plan. Consideration of two other area plans—the Metro Area Plan and East San Gabriel Valley Area Plan—is pending. In addition, LA County has seven adopted community plans: the Altadena Community Plan, East Los Angeles Community Plan, Hacienda Heights Community Plan, Rowland Heights Community Plan, Twin Lakes Community Plan, Walnut Park Neighborhood Plan, and West Athens–Westmont Community Plan. LA County has also adopted three local coastal land use plans: the Marina del Rey Local Coastal Land Use Plan, Santa Monica Mountains Land Use Plan, and Santa Catalina Island Local Coastal Land Use Plan. (County Planning 2022.)

General Plan Elements

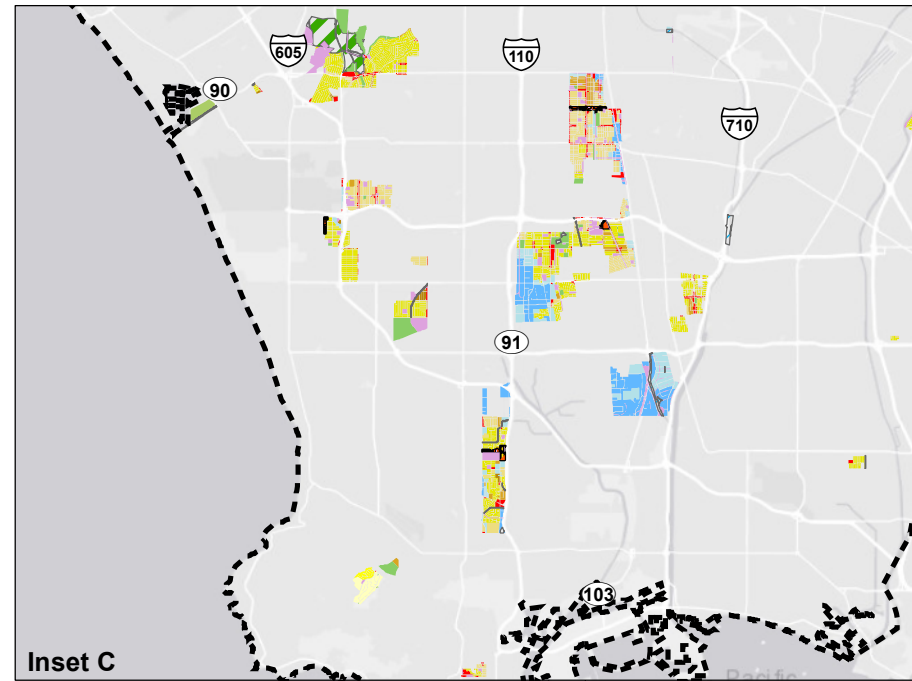
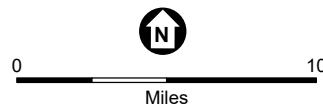
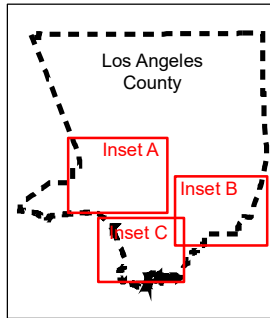
The General Plan consists of the following 10 elements:

- **Land Use Element:** The Land Use Element provides strategies and planning tools to facilitate and guide future development and revitalization efforts. The Land Use Element designates the proposed general distribution, general location, and extent of uses. **Figure 3.12-1, *General Plan Land Use Policy***, serves as the “blueprint” for how land would be used to accommodate growth and change in the unincorporated areas. Land use policies for projects within the unincorporated areas would be relevant to the study area for the Project.
- **Mobility Element:** The Mobility Element provides an overview of the transportation infrastructure and strategies for developing an efficient and multimodal transportation network. The Highway Plan and Bicycle Master Plan are sub-components of the Mobility Element.
- **Air Quality Element:** The Air Quality Element summarizes air quality issues and outlines the goals and policies that would improve air quality and reduce GHG emissions. The *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP) is a sub-component of the Air Quality Element. The role of the Draft 2045 CAP is to outline proposed GHG emissions reduction measures, and actions that would result in long-term reductions in air pollutant emissions. The Draft 2045 CAP’s measures and actions encompass the broad categories of climate leadership, transportation, building energy and water, and waste. Projects facilitated by the Draft 2045 CAP, once approved, would be required to undergo subsequent environmental review under CEQA if they require a discretionary approval from a state or local agency, and would be subject to all applicable requirements of federal, state, and local law. Policies in the Air Quality Element are being updated as a part of this Project to set the policy framework for actions found in the Draft 2045 CAP. See Table 2-1, *Proposed Updates to the Los Angeles County General Plan 2035 Air Quality Element*, in Chapter 2, *Project Description*.

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- County Boundary
- RL1 - Rural Land 1
- RL2 - Rural Land 2
- RL5 - Rural Land 5
- RL10 - Rural Land 10
- RL20 - Rural Land 20
- RL40 - Rural Land 40
- RL80 - Rural Land 80
- H2 - Residential 2
- H5 - Residential 5
- H9 - Residential 9
- H18 - Residential 18
- H30 - Residential 30
- H50 - Residential 50
- H100 - Residential 100
- H150 - Residential 150
- CR - Rural Commercial
- CG - General Commercial
- CM - Major Commercial
- MU - Mixed Use
- MU-R - Mixed Use - Rural
- IL - Light Industrial
- IH - Heavy Industrial
- IO - Industrial Office
- P - Public and Semi-Public
- OS-BLM - Bureau of Land Management
- OS-C - Conservation
- OS-PR - Parks and Recreation
- OS-NF - National Forest
- W - Water
- ML - Military Land
- MR - Mineral Resources
- SP - Specific Plan



SOURCE: ESRI; Los Angeles County GIS; ESA, 2022.



Los Angeles CAP

Figure 3.12-1
General Plan Land Use Policy

- **Conservation and Natural Resources Element:** The Conservation and Natural Resources Element guides the long-term conservation of natural resources and preservation of available open space areas.
- **Parks and Recreation Element:** The Parks and Recreation Element plans and provides for an integrated parks and recreation system that meets the needs of residents.
- **Noise Element:** The Noise Element reduces and limits the exposure of the general public to excessive noise levels. The Noise Element sets the goals and policy direction for the management of noise.
- **Safety Element:** The purpose of the Safety Element is to reduce the potential risk of death, injuries, and economic damage resulting from natural and human-made hazards.
- **Public Services and Facilities Element:** The Public Services and Facilities Element promotes the orderly and efficient planning of public services and facilities and infrastructure in conjunction with development and growth.
- **Economic Development Element:** The Economic Development Element outlines economic development goals, and provides strategies that contribute to economic well-being.
- **2021–2029 Housing Element:** The Housing Element serves as a policy guide to address the comprehensive housing needs of the unincorporated areas of the County. The primary focus of the Housing Element is to ensure decent, safe, sanitary, and affordable housing for current and future residents of the unincorporated areas, including those with special needs (County Planning 2021a).

Local Coastal Programs

Local coastal programs establish detailed land use policy and development standards within their respective coastal zone segments. In Los Angeles County, there are five unincorporated areas in the state-designated coastal zone: Ballona Wetlands, Marina del Rey, Santa Catalina Island, a portion of the Santa Monica Mountains, and San Clemente Island. In accordance with the California Coastal Act, all development within the coastal zone must first obtain a coastal development permit. LA County has certified local coastal programs for Santa Catalina Island, Marina del Rey, and a portion of the Santa Monica Mountains. This transfers coastal permitting authority over most new development to LA County.

General Plan Sustainability Principles

The following guiding principles established in the General Plan emphasize the concept of sustainability (County Planning 2014):

1. **Employ Smart Growth:** Shape new communities to align housing with jobs and services; and protect and conserve the County’s natural and cultural resources, including the character of rural communities.
2. **Ensure community services and infrastructure are sufficient to accommodate growth:** Coordinate an equitable sharing of public and private costs associated with providing or upgrading community services and infrastructure to meet growth needs.
3. **Provide the foundation for a strong and diverse economy:** Protect areas that generate employment and promote programs that support a stable and well-educated workforce. This

would provide a foundation for a jobs-housing balance and a vital and competitive economy in the unincorporated areas.

4. **Excellence in environmental resource management:** Carefully manage the County’s natural resources, such as air, water, wildlife habitats, mineral resources, agricultural land, forests, and open space in an integrated way that is both feasible and sustainable.
5. **Provide healthy, livable, and equitable communities:** Design communities that incorporate their cultural and historic surroundings, are not overburdened by nuisance and negative environmental factors, and provide reasonable access to food systems. These factors have a measurable effect on public well-being.

General Plan Policies

The following General Plan policies related to land use and planning are relevant to the Draft 2045 CAP (County Planning 2015, 2021b):

Air Quality Element

Approval of the Draft 2045 CAP would result in the General Plan updates shown in Table 2-1, *Proposed Updates to the Los Angeles County General Plan 2035 Air Quality Element*, and Table 2-2, *Proposed Updates to the Los Angeles County General Plan 2035 Implementation Program*, in Chapter 2, *Project Description*.

2021–2029 Housing Element

Policy 1.1: Identify and maintain an adequate inventory of sites to accommodate the County's RHNA.

Policy 2.2: Encourage multi-family residential and mixed-use developments along major commercial and transportation corridors.

Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout the unincorporated areas to increase housing choices for all economic segments of the population.

Policy 11.1: Ensure consistency with the OurCounty Sustainability Plan through equitable and sustainable land use policy.

Policy 11.4: Prioritize and concentrate new housing developments in areas intended to reduce environmental impacts and with adequate existing and planned infrastructure, such as road networks and water supply, including any areas covered by a County-approved specific plan or area plan that plans for housing, affordable housing, natural resource protection, open space preservation, adequate water supplies, necessary infrastructure, wildfire protection, energy conservation, and other sustainable development features.

Conservation and Natural Resources Element

Policy C/NR 8.1: Protect ARAs [Agricultural Resource Areas], and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, from encroaching development and discourage incompatible adjacent land uses.

Policy C/NR 8.2: Discourage land uses in ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local

Importance by the California Department of Conservation, that are incompatible with agricultural activities.

Policy C/NR 13.1: Protect scenic resources through land use regulations that mitigate development impacts.

Policy C/NR 13.8: Manage development in HMAs [Hillside Management Areas] to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.

Land Use Element

Policy LU 10.3: Consider the built environment of the surrounding area and location in the design and scale of new or remodeled buildings, architectural styles, and reflect appropriate features such as massing, materials, color, detailing or ornament.

Policy LU 10.5: Encourage the use of distinctive landscaping, signage and other features to define the unique character of districts, neighborhoods or communities, and engender community identity, pride and community interaction.

Policy LU 10.10: Promote architecturally distinctive buildings and focal points at prominent locations, such as major commercial intersections and near transit stations or open spaces.

Mobility Element

Policy M 2.4: Ensure a comfortable walking environment for pedestrians by implementing the following, whenever appropriate and feasible:

- Designs that limit dead-end streets and dead-end sidewalks.
- Adequate lighting on pedestrian paths, particularly around building entrances and exits, and transit stops.
- Designs for curb ramps, which are pedestrian friendly and compliant with the Americans with Disabilities Act (ADA).
- Perpendicular curb ramps at locations where it is feasible.
- Pedestrian walking speed based on the latest standard for signal timing. Slower speeds would be used when appropriate (i.e., near senior housing, rehabilitation centers, etc.)
- Approved devices to extend the pedestrian clearance times at signalized intersections.
- Accessible Pedestrian Signals (APS) at signalized intersections.
- Pedestrian crossings at signalized intersections without double or triple left or right turn lanes.
- Pedestrian signal heads, countdown pedestrian heads, pedestrian phasing and leading pedestrian intervals at signalized intersections.
- Exclusive pedestrian phases (pedestrian scrambles) where turning volume conflicts with very high pedestrian volumes.
- Advance stop lines at signalized intersections.

- Pedestrian Hybrid Beacons.
- Medians or crossing islands to divide long crossings.
- High visibility crosswalks.
- Pedestrian signage.
- Advanced yield lines for uncontrolled crosswalks.
- Rectangular Rapid Flashing Beacon or other similar approved technology at locations of high pedestrian traffic.
- Safe and convenient crossing locations at transit stations and transit stops located at safe intersections.

Policy M 2.6: Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible.

Policy M 2.8: Connect trails and pedestrian and bicycle paths to schools, public transportation, major employment centers, shopping centers, government buildings, residential neighborhoods, and other destinations.

Policy M 4.3: Maintain transit services within the unincorporated areas that are affordable, timely, cost-effective, and responsive to growth patterns and community input.

Policy M 5.1: Facilitate transit-oriented land uses and pedestrian-oriented design, particularly in the first-last mile connections to transit, to encourage transit ridership.

Public Services and Facilities Element

Goal PS/F 1: A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development.

Policy PS/F 1.5: Focus infrastructure investment, maintenance and expansion efforts where the General Plan encourages development.

Policy PS/F 1.7: Consider resource preservation in the planning of public facilities.

Safety Element

LA County expects to adopt a Safety Element Update in October 2022. This section of the EIR will be updated if and as appropriate to reflect final changes.

Policy S 3.1: Discourage high density and intensity development in VHFHSZs [Very High Fire Hazard Severity Zones].

Policy S 3.2: Consider climate change implications in planning for FHSZs [Fire Hazard Severity Zones].

Policy S 4.3: Coordinate with other County and public agencies, such as transportation agencies, and health care providers on emergency planning and response activities, and evacuation planning.

Significant Ecological Areas

As part of the General Plan’s Conservation/Open Space and Land Use elements, LA County has identified and adopted policies for Significant Ecological Areas (SEAs). The objective of the SEAs is to preserve the County’s genetic and physical ecological diversity by designating biological resource areas capable of sustaining themselves into the future. The SEA designation is given to land that contains irreplaceable biological resources, and includes undisturbed or lightly disturbed habitats that support valuable and threatened species and linkages and corridors to promote species movements. SEAs are not wilderness preserves, and much of the land within SEAs is privately held, is used for public recreation, or abuts developed areas. SEAs are intended to ensure that privately held lands retain the right of reasonable use, while avoiding activities and developments that are incompatible with long-term survival of the biological resources and habitats within the SEAs.

Los Angeles County Zoning Code

The LA County Zoning Code (Title 22–Planning and Zoning) implements the Land Use Element of the General Plan and provides specific development and land use standards. The purpose of the Zoning Code is to provide compatible use of land within the County, consistent with the needs of residential, commercial, and industrial developments, and the public health, safety, welfare, and general prosperity of residents.

Los Angeles County Hillside Management Areas

The Hillside Management Area (HMA) Ordinance applies to all unincorporated areas of Los Angeles County that contain terrain with a natural slope of 25 percent or greater. The goal of the ordinance is to ensure that development preserves the physical integrity and scenic value of HMAs, provides open space, and enhances community character. Locating development outside of HMAs to the greatest extent feasible would be the first emphasis of sensitive hillside design. Where avoidance is not feasible, development of HMAs would be located in the lowest and flattest areas of the hillside to minimize impacts on steeper hillside areas. Last, development would use a variety of sensitive hillside design techniques to ensure compatibility with the hillside and enhance community character. Development within HMAs is regulated under the Special Management Area provisions of Chapter 22.104 of the LA County Planning and Zoning Code.

Airport Land Use Plans

An airport land use commission (ALUC) has been established for each county in the state that has one or more public-use airports. ALUCs are formed with the specific intent of implementing state law regarding airports and surrounding land use compatibility. An *airport land use compatibility plan* (ALUCP) is a planning document that contains policies for promoting safety and compatibility between public-use airports and the communities that surround them. The LA County ALUC has adopted the comprehensive *Los Angeles County Airport Land Use Compatibility Plan*, which covers all airports within its jurisdiction. The document was formerly known as the *Los Angeles County Airport Land Use Plan* and the *Los Angeles County Airport ALUC Comprehensive Land Use Plan*. The ALUC also has adopted separate ALUCPs for Fox Airfield and Brackett Field Airport. An ALUCP for an individual airport supersedes the Countywide ALUCP.

Regional planning commissioners serve as the LA County ALUC. There are 15 airports in the unincorporated areas that are within the LA County ALUC’s jurisdiction. Five of these airports are owned by LA County, nine are owned by other public entities, and one is privately owned (ALUC 2022).

OurCounty: Los Angeles Countywide Sustainability Plan

OurCounty: Los Angeles Countywide Sustainability Plan (OurCounty Sustainability Plan) is a strategic plan that does not supersede land use plans adopted by the Board of Supervisors, including the General Plan. Instead, the OurCounty Sustainability Plan is a forward-looking strategic plan that establishes a common, Countywide sustainability vision for all of Los Angeles County. Creating a sustainable and equitable Los Angeles County is a collective responsibility that requires regional action. The OurCounty Sustainability Plan is organized around 12 cross-cutting goals that describe a shared vision for a sustainable Los Angeles County (Los Angeles County Chief Sustainability Office, 2019):

- Goal 1:** Resilient and healthy community environments where residents thrive in place.
- Goal 2:** Buildings and infrastructure that support human health and resilience.
- Goal 3:** Equitable and sustainable land use and development without displacement.
- Goal 4:** A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy.
- Goal 5:** Thriving ecosystems, habitats, and biodiversity.
- Goal 6:** Accessible parks, beaches, recreational waters, public lands, and public spaces that create opportunities for respite, recreation, ecological discovery, and cultural activities.
- Goal 7:** A fossil fuel-free LA County.
- Goal 8:** A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency.
- Goal 9:** Sustainable production and consumption of resources.
- Goal 10:** A sustainable and just food system that enhances access to affordable, local, and healthy food.
- Goal 11:** Inclusive, transparent, and accountable governance that facilitates participation in sustainability efforts, especially by disempowered communities.
- Goal 12:** A commitment to realize OurCounty sustainability goals through creative, equitable, and coordinated funding and partnerships.

Southern California Association of Governments

SCAG is the designated regional planning agency for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. SCAG is a joint powers agency with responsibilities pertaining to regional issues. SCAG’s mandated responsibilities include developing plans and policies with respect to the region’s population growth, transportation programs, air quality, housing, land use, sustainability, and economic development.

On September 3, 2020, SCAG’s Regional Council adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2045 RTP/SCS), also known as Connect SoCal. The 2045 RTP/SCS presents the transportation vision for the region through the year 2045 and builds upon and expands land use and transportation strategies previously established to increase mobility options and achieve a more sustainable growth pattern. The 2045 RTP/SCS includes new initiatives at the intersection of land use, transportation, and technology to close the gap and reach the state’s GHG emissions reduction goals. Also, the 2045 RTP/SCS contains baseline socioeconomic projections that are used as the basis for SCAG’s transportation planning, and the provision of services by other regional agencies. The 2045 RTP/SCS includes 10 goals that fall into four core categories: economy, mobility, environment, and healthy/complete communities.

The 2045 RTP/SCS goals are as follows:

- Goal 1:** Encourage regional economic prosperity and global competitiveness.
- Goal 2:** Improve mobility, accessibility, reliability, and travel safety for people and goods.
- Goal 3:** Enhance the preservation, security, and resilience of the regional transportation system.
- Goal 4:** Increase person and goods movement and travel choices within the transportation system.
- Goal 5:** Reduce GHG emissions and improve air quality.
- Goal 6:** Support healthy and equitable communities.
- Goal 7:** Adapt to a changing climate and support an integrated regional development pattern and transportation network.
- Goal 8:** Leverage new transportation technologies and data-driven solutions that result in more-efficient travel.
- Goal 9:** Encourage development of diverse housing types in areas that are supported by multiple transportation options.
- Goal 10:** Promote conservation of natural and agricultural lands and restoration of habitats.

3.12.2 Impact Analysis

3.12.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact related to land use and planning if it would:

- a) Physically divide an established community;

- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact; or
- c) Conflict with the goals and policies of the General Plan related to Hillside Management Areas or Significant Ecological Areas.

As described below, the Initial Study analysis determined that less-than-significant impacts would occur related to criteria a) and c) (Appendix A.2).

As discussed in Initial Study Section 11, *Land Use and Planning*, under criterion a), projects facilitating Draft 2045 CAP measures and actions would generally improve connections between and within communities. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan’s land use assumptions in the 2021–2029 Housing Element. No changes to General Plan land use designations are proposed as part of the Draft 2045 CAP. Therefore, adoption of the Draft 2045 CAP would result in less-than-significant impacts related to the potential to divide an established community.

See Section 3.8, *Geology and Soils*, under criterion f) regarding consistency with goals and policies related to HMAs, and see Section 3.5, *Biological Resources*, under criterion f) regarding consistency with goals and policies related to SEAs. As indicated in these sections, future projects facilitated by Draft 2045 CAP measures and actions would be required to comply with local policies or ordinances protecting HMAs and biological resources, such as SEAs, on a project-specific basis. Thus, the impact related to the possibility that the Draft 2045 CAP could conflict with the goals and policies of the General Plan related to HMAs and SEAs would be less than significant.

For these reasons, considerations related to division of an established community and to a conflict with policies related to the HMAs or SEAs—criterion a) and criterion c), respectively—are not analyzed further in this section.

3.12.2.2 Methodology

CEQA Guidelines Section 15125(d) requires an EIR to discuss any project inconsistencies with applicable general plans, specific plans, and regional plans adopted for the purpose of avoiding or mitigating an environmental impact. This analysis focuses on general plans and regional plans relevant to land use consistency. Consistency with applicable local and regional plans for other resources, such as air quality, biological resources, geology and soils, and transportation are addressed in other resource sections in this Chapter 3 or in the Initial Study (Appendix A2). These include consistency with goals and policies related to HMAs or related to SEAs. As mentioned previously, these topics are analyzed in Section 3.8, *Geology and Soils*, under criterion f), and Section 3.5, *Biological Resources*, under criterion f), respectively. Consistency with goals and policies of the General Plan’s Air Quality Element and applicable air quality plan are addressed in Section 3.2, *Air Quality*, under criterion a).

For purposes of this analysis, the Draft 2045 CAP is considered consistent with land use plans if the Draft 2045 CAP as a whole meets the general intent of the plans and/or would not preclude the attainment of their primary goals. Consistency with plans is determined by considering consistency with the plans as a whole, and not with each plan policy. The analysis describes the consistency of the Draft 2045 CAP with the applicable goals and policies of the General Plan, with the OurCounty Sustainability Plan, and with the regional measures listed in SCAG’s 2045 RTP/SCS. For measures shown to be consistent with applicable land use plans and policies, future projects facilitated by these measures and actions also would be consistent with the General Plan, including the land use assumptions included in the 2021–2029 Housing Element.

3.12.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of the individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, the impacts of the implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic (PV) projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the impacts of implementing these measures that could result, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of land use and planning–related impacts. These and other relevant measures and actions include the following:

- *New ordinances and programs:* Actions ES3.1, ES3.2, ES4.1, ES4.5, ES5.1, ES5.3, T4.5, T4.8, T4.9, T5.1, T6.1, T6.3, T8.2, T8.3, E1.1, E1.3, E2.1, E2.2, E2.3, E3.2, E3.3, E3.4, E4.1, E4.2, E5.1, E5.2, E5.3, E6.1, E6.2, E6.5, W1.2, W1.3, W2.1, and W2.2.
- *Changes to existing zoning:* Action ES1.1.
- *Residential densification of areas near transit:* Action T1.1.

Each of these actions could affect land use and planning consistency going forward. Specific impacts related to land use and planning of the Draft 2045 CAP, including projects facilitated by Draft 2045 CAP measures and actions, are analyzed below.

Criterion b) Whether the Project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact.

Impact 3.12-1: Projects facilitated by the Draft 2045 CAP would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. (*Less-than-Significant Impact*)

As discussed in Chapter 2, *Project Description*, LA County is preparing the Draft 2045 CAP in response to the state’s efforts to ensure that the County contributes its fair share to statewide GHG emissions reductions. The Draft 2045 CAP identifies measures to effectively meet GHG emissions reduction targets for 2030 and 2035, and to make progress toward an aspirational goal of carbon neutrality by 2045. The Draft 2045 CAP furthers the vision and goals of the OurCounty Sustainability Plan and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP.

Table 3.12-2, *Matrix of Draft 2045 Climate Action Plan Actions and Consistency with Relevant Plans*, relates applicable General Plan policies to the proposed Draft 2045 CAP measures and actions to meet GHG emissions reduction targets. As shown in the table, each Draft 2045 CAP measure is consistent with many General Plan policies. The table also provides an indication of how each Draft 2045 CAP measure is consistent with other adopted environmental plans and policies, including SCAG’s 2045 RTP/SCS and the OurCounty Sustainability Plan.

The analysis in Table 3.12-2 shows that the Draft 2045 CAP measures would be consistent with applicable goals and policies of the General Plan as well as other relevant plans and policies (i.e., the OurCounty Sustainability Plan and SCAG’s 2045 RTP/SCS). Therefore, implementation of the Draft 2045 CAP would not result in significant land use impacts related to conflicts with relevant General Plan goals and policies.

As discussed in Draft 2045 CAP Appendix A, *Greenhouse Gas Accounting Methods, Business-as-Usual Forecast, and Emission Reduction Targets*, the community-wide GHG emissions inventory and emissions forecasts for the on-road transportation sector are based on vehicle miles traveled (VMT) from the SCAG 2016 Regional Travel Demand Model. The 2016 model is the version for which a complete data set was available at the time of the modeling. The 2016 model was used to analyze the transportation network and socioeconomic data such as population, household, and employment, to forecast daily vehicle trips and VMT for each traffic analysis zone within the County. After the VMT modeling for the GHG inventory was conducted, SCAG released the 2045 RTP/SCS. When the Draft EIR was being prepared, and as of May 2022, the 2045 RTP/SCS travel demand model was still not available for public use. Thus, it is not currently possible to model future VMT, and the Draft 2045 CAP’s anticipated reduction in VMT, using the 2045 RTP/SCS. However, this does not affect the consistency analysis of the Draft 2045 CAP’s consistency with the 2045 RTP/SCS; as shown in Table 3.12-2, the Draft 2045 CAP’s measures and actions would be consistent with SCAG’s 2045 RTP/SCS policies independent of consistency with the VMT model used to estimate future emissions.

**TABLE 3.12-2
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

Draft 2045 CAP Measures	Performance Objectives	Los Angeles County General Plan Goals and Policies with Which Measure is Consistent	Other Relevant Plans and Plan Policies with Which Measure is Consistent
Strategy 1: Decarbonize the Energy Supply.			
Measure ES1: Develop a Sunset Strategy for All Oil and Gas Operations.	Reduce oil and gas operations by 40% below 2015 levels by 2030, 60% by 2035, and 80 percent by 2045.	<ul style="list-style-type: none"> Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. 	<ul style="list-style-type: none"> SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. OurCounty Goal 7: A fossil fuel-free LA County.
Measure ES2: Procure Zero-Carbon Electricity.	Participate in the Clean Power Alliance's Green Power option or Southern California Edison's Green Rate option: <ul style="list-style-type: none"> 100% municipal participation by 2025 96% community participation by 2030 (approximately 4% opt-out rate) 	<ul style="list-style-type: none"> Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and GHG emission reduction goals. Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. 	<ul style="list-style-type: none"> SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. OurCounty Goal 7: A fossil fuel-free LA County.
Measure ES3: Increase Renewable Energy Production.	Install rooftop solar PV for existing multi-family residential buildings and existing commercial buildings: <ul style="list-style-type: none"> 5% by 2030 10% by 2035 20% by 2045 Install rooftop solar PV for new multi-family residential buildings: <ul style="list-style-type: none"> 80% by 2030 85% by 2035 95% by 2045 Install rooftop solar PV for new commercial buildings: <ul style="list-style-type: none"> 40% by 2030 50% by 2035 70% by 2045 Install 20,000 kW of solar PV at LA County facilities by 2030.	<ul style="list-style-type: none"> Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. 	<ul style="list-style-type: none"> SCAG's 2045 RTP/SCS Goal 1: Encourage regional economic prosperity and global competitiveness. SCAG's 2045 RTP/SCS Goal 5: Reduce GHG gas emissions and improve air quality. OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. OurCounty Goal 7: A fossil fuel-free LA County.

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

Draft 2045 CAP Measures	Performance Objectives	Los Angeles County General Plan Goals and Policies with Which Measure is Consistent	Other Relevant Plans and Plan Policies with Which Measure is Consistent
Strategy 1: Decarbonize the Energy Supply (cont.)			
Measure ES4: Increase Energy Resilience.	Achieve community electricity storage capacity equal to the community-wide 24-hour average usage by 2035/2045.	<ul style="list-style-type: none"> Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. Policy AQ 3.8: Develop, implement, and maintain countywide climate change adaptation strategies to ensure that the community and public services are resilient to climate change impacts. 	<ul style="list-style-type: none"> SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. OurCounty Goal 1: Resilient and healthy community environments where residents thrive in place. OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. OurCounty Goal 7: A fossil fuel-free LA County.
Measure ES5: Establish GHG Requirements for New Development.	All new development that does not require a General Plan amendment shall be consistent with the 2045 CAP.	<ul style="list-style-type: none"> Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and GHG emission reduction goals. 	<ul style="list-style-type: none"> SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. OurCounty Goal 3: Equitable and sustainable land use and development without displacement.
Strategy 2: Increase Densities and Diversity of Land Uses Near Transit.			
Measure T1: Increase Density Near High-Quality Transit Areas.	<p>By 2030:</p> <ul style="list-style-type: none"> Achieve a minimum of 20 DUs per acre (maximum of 50 DUs per acre) for HQTAs Locate a majority of residential and employment centers in unincorporated Los Angeles County within 1 mile of an HQTA Achieve a 27% increase in DUs within HQTAs <p>These densities would be achieved through implementation of the Housing Element Update rezoning programs.</p>	<ul style="list-style-type: none"> Housing Element Policy 11.3: Support policies and programs that aim to reduce resource consumption, such as solar panel installation, cool roof installation, back-up battery power, and incentivization of housing near transit. Policy M 5.1: Facilitate transit-oriented land uses and pedestrian-oriented design, particularly in the first-last mile connections to transit, to encourage transit ridership. 	<ul style="list-style-type: none"> SCAG's 2045 RTP/SCS Goal 6: Support healthy and equitable communities. SCAG's 2045 RTP/SCS Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options. OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. OurCounty Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency.

TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS

Draft 2045 CAP Measures	Performance Objectives	Los Angeles County General Plan Goals and Policies with Which Measure is Consistent	Other Relevant Plans and Plan Policies with Which Measure is Consistent
Strategy 2: Increase Densities and Diversity of Land Uses Near Transit (cont.)			
Measure T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use.	By 2030, achieve a job density of 300 jobs per acre for all new projects with nonresidential development. This density would be achieved through implementation of the Housing Element Update rezoning programs.	<ul style="list-style-type: none"> • Housing Element Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout the unincorporated areas to increase housing choices for all economic segments of the population. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy.
Strategy 3: Reduce Single-Occupancy Vehicle Trips.			
Measure T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips.	Increase bikeway miles by 500% by 2030.	<ul style="list-style-type: none"> • Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning. • Goal PS/F 1: A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development. • Policy M 2.4: Ensure a comfortable walking environment for pedestrians by implementing the following, whenever appropriate and feasible: <ul style="list-style-type: none"> - Designs that limit dead-end streets and dead-end sidewalks. - Adequate lighting on pedestrian paths, particularly around building entrances and exits, and transit stops. - Designs for curb ramps, which are pedestrian friendly and compliant with the Americans with Disabilities Act (ADA). - Perpendicular curb ramps at locations where it is feasible. - Pedestrian walking speed based on the latest standard for signal timing. Slower speeds would be used when appropriate (i.e., near senior housing, rehabilitation centers, etc.) - Approved devices to extend the pedestrian clearance times at signalized intersections. - Accessible Pedestrian Signals (APS) at signalized intersections. - Pedestrian crossings at signalized intersections without double or triple left or right turn lanes. - Pedestrian signal heads, countdown pedestrian heads, pedestrian phasing and leading pedestrian intervals at signalized intersections. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 6: Support healthy and equitable communities. • SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • SCAG's 2045 RTP/SCS Goal 8: Leverage new transportation technologies and data-driven solutions that result in more-efficient travel. • OurCounty Goal 1: Resilient and healthy community environments where residents thrive in place. • OurCounty Goal 3: Equitable and sustainable land use and development without displacement.

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

Draft 2045 CAP Measures	Performance Objectives	Los Angeles County General Plan Goals and Policies with Which Measure is Consistent	Other Relevant Plans and Plan Policies with Which Measure is Consistent
Strategy 3: Reduce Single-Occupancy Vehicle Trips (cont.)			
Measure T3 (cont.)		<ul style="list-style-type: none"> - Exclusive pedestrian phases (pedestrian scrambles) where turning volume conflicts with very high pedestrian volumes. - Advance stop lines at signalized intersections. - Pedestrian Hybrid Beacons. - Medians or crossing islands to divide long crossings. - High visibility crosswalks. - Pedestrian signage. - Advanced yield lines for uncontrolled crosswalks. • Policy M 2.6: Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible. 	
Measure T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation.	<ul style="list-style-type: none"> • By 2030, double transit service hours from 560,000 to 1.12 million. • By 2030, install bus-only lanes and signal prioritization on 100% of all transit routes. • By 2030, have a minimum of 75% of unincorporated County residents live within one-half mile of a bus or active transportation option. 	<ul style="list-style-type: none"> • Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning. • Housing Element Policy 2.2: Encourage multi-family residential and mixed-use developments along major commercial and transportation corridors. • Policy M 2.6: Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 3: Enhance the preservation, security, and resilience of the regional transportation system. • SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency.
Measure T5: Limit and Remove Parking Minimums.	<ul style="list-style-type: none"> • Reduce parking stipulations to reduce parking supply and increase transit use. • Unbundle parking costs to reflect cost of parking. • Implement parking pricing to increase "park-once" behavior. 	<ul style="list-style-type: none"> • Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 6: Support healthy and equitable communities. • SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • SCAG's 2045 RTP/SCS Goal 8: Leverage new transportation technologies and data-driven solutions that result in more-efficient travel. • OurCounty Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency.

TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS

Draft 2045 CAP Measures	Performance Objectives	Los Angeles County General Plan Goals and Policies with Which Measure is Consistent	Other Relevant Plans and Plan Policies with Which Measure is Consistent
Strategy 4: Institutionalize Low-Carbon Transportation.			
Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales.	Increase the total amount of light-duty vehicles in the County that are ZEVs to: <ul style="list-style-type: none"> • 30% by 2030 • 50% by 2035 • 80% by 2045 Increase the sales of all new light-duty vehicles in the County that are ZEVs to: <ul style="list-style-type: none"> • 60% by 2030 • 100% by 2035 	<ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and GHG emission reduction goals. • Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 1: Encourage regional economic prosperity and global competitiveness. • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 7: A fossil fuel-free LA County. • OurCounty Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency. • OurCounty Goal 12: A commitment to realize OurCounty sustainability goals through creative, equitable, and coordinated funding and partnerships. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy.
Measure T7: Electrify LA County Fleet Vehicles.	Electrify the LA County bus, shuttle, and light-duty vehicle fleet by 2030. Increase the total amount of light-duty vehicles in the LA County-owned fleet that are ZEVs to: <ul style="list-style-type: none"> • 35% by 2030 • 60% by 2035 • 100% by 2045 	<ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and GHG emission reduction goals. • Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel-free LA County.

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

Draft 2045 CAP Measures	Performance Objectives	Los Angeles County General Plan Goals and Policies with Which Measure is Consistent	Other Relevant Plans and Plan Policies with Which Measure is Consistent
Strategy 4: Institutionalize Low-Carbon Transportation (cont.)			
Measure T8: Accelerate Freight Decarbonization.	Increase the total amount of medium- and heavy-duty vehicles in the County that are ZEVs to: <ul style="list-style-type: none"> • 40% by 2030 • 60% by 2035 • 85% by 2045 Increase the total amount of medium- and heavy-duty vehicles in the LA County–owned fleet that are ZEVs to: <ul style="list-style-type: none"> • 60% by 2030 • 80% by 2035 • 100% by 2045 Ensure that 100% of the drayage truck fleet is ZEV by 2035.	<ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and GHG emission reduction goals. • Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. 	<ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • SCAG’s 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel–free LA County.
Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment.	Increase the total amount of off-road fleet and equipment in the County that are ZEVs to: <ul style="list-style-type: none"> • 20% by 2030 • 50% by 2035 • 90% by 2045 	<ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and GHG emission reduction goals. • Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. 	<ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • SCAG’s 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel–free LA County. • OurCounty Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency.
Strategy 5: Decarbonize Buildings.			
Measure E1: Transition Existing Buildings to All-Electric.	Electrify all existing residential buildings: <ul style="list-style-type: none"> • 25% by 2030 • 40% by 2035 • 70% by 2045 Electrify all existing nonresidential buildings: <ul style="list-style-type: none"> • 15% by 2030 	<ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and GHG emission reduction goals. • Housing Element Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout the unincorporated areas to increase housing choices for all economic segments of the population. 	<ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy.

TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS

Draft 2045 CAP Measures	Performance Objectives	Los Angeles County General Plan Goals and Policies with Which Measure is Consistent	Other Relevant Plans and Plan Policies with Which Measure is Consistent
Strategy 5: Decarbonize Buildings (cont.)			
Measure E1 (cont.)	<ul style="list-style-type: none"> • 25% by 2035 • 40% by 2045 Require ZNE for all major renovations: <ul style="list-style-type: none"> • 50% by 2030 • 75% by 2035 • 100% by 2045 Electrify LA County facilities to the maximum extent feasible.		<ul style="list-style-type: none"> • OurCounty Goal 7: A fossil fuel-free LA County.
Measure E2: Standardize All-Electric New Development.	All new buildings will be all-electric beginning in 2025. All new residential will be ZNE beginning in 2025 and all new nonresidential will be ZNE beginning in 2030.	<ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and GHG gas emission reduction goals. • Housing Element Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout the unincorporated areas to increase housing choices for all economic segments of the population. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel-free LA County.
Measure E3: Implement Other Decarbonization Actions.	Increase the proportion of biomethane in the utility natural gas mix to: <ul style="list-style-type: none"> • 20% by 2030 • 30% by 2035 • 80% by 2045 Use negative-carbon concrete for all new construction. Replace high-GWP refrigerants with low-GWP refrigerants: <ul style="list-style-type: none"> • 15% by 2030 • 25% by 2035 • 50% by 2045 	<ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and GHG emission reduction goals. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel-free LA County.

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

Draft 2045 CAP Measures	Performance Objectives	Los Angeles County General Plan Goals and Policies with Which Measure is Consistent	Other Relevant Plans and Plan Policies with Which Measure is Consistent
Strategy 6: Improve Efficiency of Existing Building Energy Use.			
Measure E4: Improve Energy Efficiency of Existing Buildings.	Reduce building Energy Use Intensity below 2015 levels as follows: <ul style="list-style-type: none"> • 15% for residential and industrial and 25% for commercial by 2030 • 25% for residential and industrial and 35% for commercial by 2035 • 35% for residential and industrial and 50% for commercial by 2045 	<ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emission reduction goals. • Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. • Housing Element Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout the unincorporated areas to increase housing choices for all economic segments of the population. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel-free LA County.
Strategy 7: Conserve Water.			
Measure E5: Increase Use of Recycled Water and Gray Water Systems.	County demand met by recycled water, gray water, or potable reuse: <ul style="list-style-type: none"> • 25% by 2025 • 50% by 2030 • 100% by 2045 	<ul style="list-style-type: none"> • Policy AQ 3.8: Develop, implement, and maintain countywide climate change adaptation strategies to ensure that the community and public services are resilient to climate change impacts. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 6: Support healthy and equitable communities. • OurCounty Goal 1: Resilient and healthy community environments where residents thrive in place. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 9: Sustainable production and consumption of resources.
Measure E6: Reduce Indoor and Outdoor Water Consumption.	Reduce total water use to less than: <ul style="list-style-type: none"> • 110 GPCD by 2030 • 100 GPCD by 2035 • 85 GPCD by 2045 	<ul style="list-style-type: none"> • Policy AQ 3.8: Develop, implement, and maintain countywide climate change adaptation strategies to ensure that the community and public services are resilient to climate change impacts. • Policy PS/F 1.7: Consider resource preservation in the planning of public facilities. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 6: Support healthy and equitable communities. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 9: Sustainable production and consumption of resources.

TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS

Draft 2045 CAP Measures	Performance Objectives	Los Angeles County General Plan Goals and Policies with Which Measure is Consistent	Other Relevant Plans and Plan Policies with Which Measure is Consistent
Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream.			
Measure W1: Institutionalize Sustainable Waste Systems and Practices.	Decrease overall per-capita waste disposal in landfills: <ul style="list-style-type: none"> • 25% by 2030 (0.65 tons per capita per day) • 30% by 2035 (0.61 tons per capita per day) • 35% by 2045 (0.56 tons per capita per day) Increase the total County diversion rate to: <ul style="list-style-type: none"> • 80% by 2025 • 85% by 2030 • 90% by 2035 • 95% by 2045 	<ul style="list-style-type: none"> • Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning. • Goal AQ 3: Implementation of plans and programs to address the impacts of climate change. • Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and GHG emission reduction goals. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 7: A fossil fuel-free LA County.
Measure W2: Increase Organic Waste Diversion.	Maximize organic waste disposal reduction compared to 2014 levels: <ul style="list-style-type: none"> • 75% by 2025 • 85% (340,000 tons) by 2030 • 90% (394,000 tons) by 2035 • 95% (433,000 tons) by 2045 	<ul style="list-style-type: none"> • Goal AQ 3: Implementation of plans and programs to address the impacts of climate change. • Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and GHG emission reduction goals. • Policy AQ 3.8: Develop, implement, and maintain countywide climate change adaptation strategies to ensure that the community and public services are resilient to climate change impacts. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience.
Strategy 9: Conserve Forests and Working Lands.			
Measure A1: Conserve Agricultural and Working Lands, Forest Lands, and Wildlands.	Reduce the amount of natural land converted for urban uses: <ul style="list-style-type: none"> • 25% by 2030 • 50% by 2035 • 75% by 2045 Conserve natural lands that would have otherwise been converted for urbanized uses: <ul style="list-style-type: none"> • 53 acres annually by 2030 • 106 acres annually by 2035 • 159 acres annually by 2045 	<ul style="list-style-type: none"> • Policy C/NR 8.1: Protect ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, from encroaching development and discourage incompatible adjacent land uses. • Policy C/NR 8.2: Discourage land uses in ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, that are incompatible with agricultural activities. • Policy AQ 3.7: Support and expand urban forest programs within the unincorporated areas. 	<ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats. • OurCounty Goal 5: Thriving ecosystems, habitats, and biodiversity. • OurCounty Goal 6: Accessible parks, beaches, recreational waters, public lands, and public spaces that create opportunities for respite, recreation, ecological discovery, and cultural activities.

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

Draft 2045 CAP Measures	Performance Objectives	Los Angeles County General Plan Goals and Policies with Which Measure is Consistent	Other Relevant Plans and Plan Policies with Which Measure is Consistent
Strategy 10: Sequester Carbon and Implement Sustainable Agriculture.			
Measure A2: Support Regenerative Agriculture.	Reduce the quantity of synthetic fertilizers used/applied. Increase the number of acres of cover crops using regenerative agricultural techniques.	<ul style="list-style-type: none"> Policy C/NR 8.1: Protect ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, from encroaching development and discourage incompatible adjacent land uses. 	<ul style="list-style-type: none"> SCAG's 2045 RTP/SCS Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats. OurCounty Goal 5: Thriving ecosystems, habitats, and biodiversity.
Strategy 10: Sequester Carbon and Implement Sustainable Agriculture.			
Measure A2 (cont.)		<ul style="list-style-type: none"> Policy C/NR 8.2: Discourage land uses in ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, that are incompatible with agricultural activities. 	<ul style="list-style-type: none"> OurCounty Goal 9: Sustainable production and consumption of resources.
Measure A3: Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces.	Plant new trees: <ul style="list-style-type: none"> 5,000 by 2030 10,000 by 2035 20,000 by 2045 Increase County tree canopy cover: <ul style="list-style-type: none"> 10% by 2030 15% by 2035 20% by 2045 	<ul style="list-style-type: none"> Policy AQ 3.7: Support and expand urban forest programs within the unincorporated areas. 	<ul style="list-style-type: none"> SCAG's 2045 RTP/SCS Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats. OurCounty Goal 5: Thriving ecosystems, habitats, and biodiversity. OurCounty Goal 6: Accessible parks, beaches, recreational waters, public lands, and public spaces that create opportunities for respite, recreation, ecological discovery, and cultural activities. OurCounty Goal 11: Inclusive, transparent, and accountable governance that facilitates participation in sustainability efforts, especially by disempowered communities. OurCounty Goal 12: A commitment to realize OurCounty sustainability goals through creative, equitable, and coordinated funding and partnerships.

NOTES:

ARA = Agricultural Resource Area; County = unincorporated areas of Los Angeles County; Draft 2045 CAP = *Los Angeles County Draft 2045 Climate Action Plan*; DU = dwelling unit; General Plan = *Los Angeles County General Plan 2035*; GHG = greenhouse gas; GPCD = gallons per capita per day; HQTA = High Quality Transit Area; kW = kilowatt; LA County = Los Angeles County; OurCounty = *OurCounty: Los Angeles Countywide Sustainability Plan*; PV = photovoltaic; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SCAG = Southern California Association of Governments; ZEV = zero-emission vehicle; ZNE = zero net energy

Additionally, projects facilitated by the Draft 2045 CAP measures and actions that require a discretionary approval from a state or local agency would be required to conduct their own CEQA analyses. Significance determinations would be based on the individual projects' specifics; the CEQA analyses would analyze the potential for each project to conflict with existing land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental impact. Similar to the Project, projects facilitated by the Draft 2045 CAP would use regional planning documents such as the General Plan and SCAG's 2045 RTP/SCS during planning. To be approved, any future projects facilitated by the Draft 2045 CAP measures and actions, and other future development, would need to be found consistent with the local general plan and the applicable specific plan, area plan, local coastal plan, and community plan or neighborhood plan.

Adoption of the Draft 2045 CAP would not cause a significant environmental impact related to land use because implementing the Draft 2045 CAP, once approved, would further the goals and policies of the above-listed land use plans and policies adopted for the purpose of avoiding or mitigating an environmental impact.

Mitigation: None required.

3.12.2.4 Cumulative Impacts

The geographic context for the evaluation of cumulative impacts on land use and planning is Countywide, inclusive of both unincorporated and incorporated areas. In these areas, a cumulative impact could result from the time a project facilitated by Draft 2045 CAP measures and actions is approved and could continue in perpetuity.

Criterion b)

Impact 3.12-2: Projects facilitated by the Draft 2045 CAP would not cause or contribute to a significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. (*Less-than-Significant Cumulative Impact*)

Past, present, and reasonably foreseeable future projects have been proposed, and would be proposed in the future, in addition to projects facilitated by the Draft 2045 CAP measures and actions. These include projects proposed in accordance with General Plan and municipal code requirements (see, e.g., County Planning 2014, 2015, 2021b) and the suite of LA County-adopted specific plans, airport land use plans, area plans, local coastal plans, community plans, and neighborhood plans identified in Section 3.12.1.3, *Regulatory Setting*.

As analyzed in Section 3.12.4.1, *Project Impacts*, the Draft 2045 CAP measures are compatible with the goals and policies of the General Plan, the OurCounty Sustainability Plan, and the regional policies listed in SCAG's 2045 RTP/SCS. Future projects facilitated by the Draft 2045 CAP measures and actions would also be consistent with these plans. Further, to be approved, any future projects facilitated by the Draft 2045 CAP measures and actions, as well as other future development, would need to be found consistent with the local general plan and the applicable

specific plan, area plan, local coastal plan, and community plan or neighborhood plan. Thus, cumulative impacts related to the Project's consistency with land use plans and policies would not be significant, and the Draft 2045 CAP's contribution to any cumulative impacts would not be cumulatively considerable, and therefore less than significant.

Mitigation: None required.

3.13 Noise

This section identifies and evaluates issues related to noise to determine whether the Project would result in a significant impact related to temporary or permanent noise or vibration. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various substantive issues and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to noise suggest that future renewable energy projects facilitated by the Draft 2045 CAP would cause noise-related impacts in the Los Angeles County's more rural communities and would cause odor impacts.

3.13.1 Setting

3.13.1.1 Study Area

The study area for this analysis of impacts to noise consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated areas of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

3.13.1.2 Environmental Setting

Noise and Vibration Basics

Noise Principles and Descriptors

Sound is described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). *Noise* is generally defined as undesirable sound (i.e., one that is loud, unexpected, or annoying). *Acoustics* is defined as the physics of sound and addresses its propagation and control (Caltrans 2013). In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determine the sound level and characteristics of the noise perceived by the receiver.

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as *sound level*) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement and reflects the way people perceive changes in sound amplitude.¹ The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120–140 dB

¹ All sound levels are measured in decibels (dB), as identified in the noise calculation worksheets included in Appendix E, *Noise*, and in this section of the Draft EIR, are relative to 2×10^{-5} newtons per square meter.

corresponding to the threshold of feeling pain. Pressure waves traveling through air exert a force registered by the human ear as sound (Caltrans 2013).

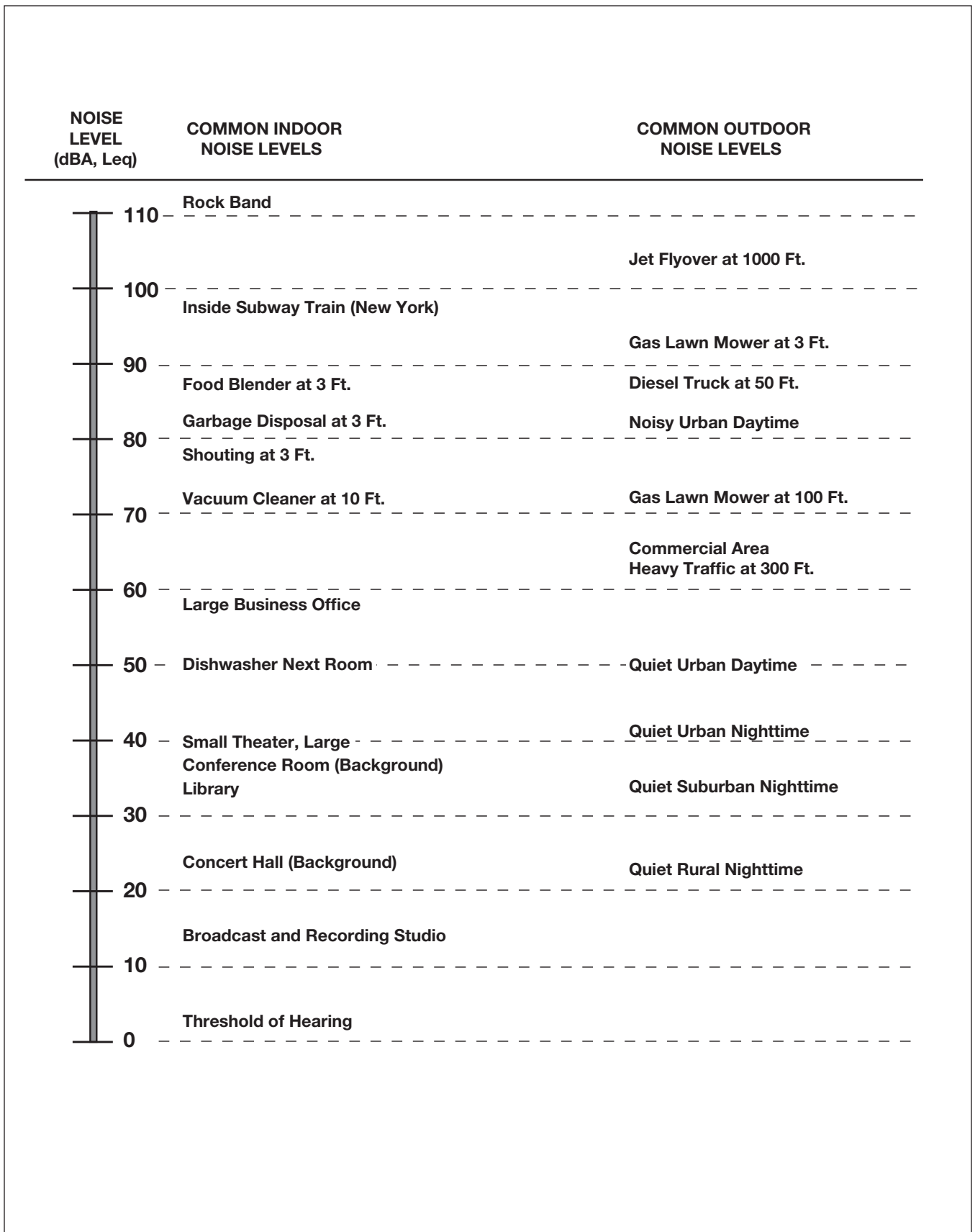
Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. The typical human ear is not equally sensitive to the audible frequency range from 20 to 20,000 Hz. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering or weighting is referred to as *A-weighting*, expressed in units of A-weighted decibels (dBA), which is typically applied to community noise measurements (Caltrans 2013). Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in **Figure 3.13-1, Decibel Scale and Common Noise Sources**.

Noise Exposure and Community Noise

Community noise exposure is typically measured over a period of time; a noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with many unidentifiable individual contributors. Single-event noise sources, such as aircraft flyovers and sirens, may cause sudden changes in background noise level (Caltrans 2013). However, generally, background noise levels change gradually throughout the day, corresponding with the addition and subtraction of distant noise sources, such as changes in traffic volume.

These successive additions of sound to the community noise environment change the community noise level from moment to moment, requiring the noise exposure to be measured over periods of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. The following noise descriptors are used to characterize environmental noise levels over time (Caltrans 2013):

- **L_{eq}**: The equivalent sound level over a specified period of time, typically, 1 hour (L_{eq}). The L_{eq} may also be referred to as the average sound level.
- **L_{max}**: The maximum, instantaneous noise level experienced during a given period of time.
- **L_{min}**: The minimum, instantaneous noise level experienced during a given period of time.
- **L_x**: The noise level exceeded a percentage of a specified time period. For instance, L₅₀ and L₉₀ represent the noise levels that are exceeded 50 percent and 90 percent of the time, respectively.
- **L_{dn}**: The average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dBA to measured noise levels between the hours of 10:00 p.m. and 7:00 a.m. the next day to account for nighttime noise sensitivity. The L_{dn} is also termed the *day-night average noise level* (DNL).



SOURCE: State of California, Department of Transportation (Caltrans), Technical Noise Supplement (TeNS). October 1998. Available: [http://www.dot.ca.gov/hq/env/noise/pub/Technical Noise Supplement.pdf](http://www.dot.ca.gov/hq/env/noise/pub/Technical%20Noise%20Supplement.pdf)

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.13-1
Decibel Scale and Common Noise Sources

- **CNEL:** The community noise equivalent level (CNEL), the time average A-weighted noise level during a 24-hour day that includes an addition of 5 dBA to measured noise levels between the hours of 7:00 p.m. and 10:00 p.m. and an addition of 10 dBA to noise levels between the hours of 10:00 p.m. and 7:00 a.m. the next day to account for noise sensitivity in the evening and nighttime, respectively.

Impacts of Noise on People

Noise is generally loud, unpleasant, unexpected, or undesired sound that typically is associated with human activity that is a nuisance or disruptive. The impacts of noise on people can be placed into four general categories:

- Subjective impacts (e.g., dissatisfaction, annoyance)
- Interference impacts (e.g., communication, sleep, and learning interference)
- Physiological impacts (e.g., startled response)
- Physical impacts (e.g., hearing loss)

Although exposure to high noise levels has been demonstrated to cause physical and physiological impacts, the principal human responses to typical environmental noise exposure are related to subjective impacts and interference with activities. Interference impacts interrupt daily activities and include interference with human communication activities, such as normal conversations, television watching, telephone conversations, and interference with sleep (Caltrans 2013).

With regard to the subjective impacts, the responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day, and the type of activity during which the noise occurs, and individual noise sensitivity. With regard to increases in A-weighted noise level, the following relationships generally occur (Caltrans 2013):

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived.
- Outside of the laboratory, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference.
- A change in ambient noise levels of 5 dBA is considered to be a readily perceivable difference.
- A change in ambient noise levels of 10 dBA is subjectively heard as doubling of the perceived loudness.

These relationships between change in noise level and human hearing response occur in part because of the logarithmic nature of sound and the dB scale. Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion but, rather, logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions (Caltrans 2013).

Noise Attenuation

When noise propagates over a distance, the noise level reduces, or *attenuates*, with distance depending on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as *spherical spreading*. The rate of sound attenuation for a point source, such as a piece of mechanical or electrical equipment or idling vehicle (e.g., air conditioner or bulldozer), is 6 dBA per doubling of distance from the noise source to the receptor over acoustically “hard” sites (e.g., asphalt and concrete surfaces) and 7.5 dBA per doubling of distance from the noise source to the receptor over acoustically “soft” sites (e.g., soft dirt, grass, or scattered bushes and trees). Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water (Caltrans 2013).

Roadways and highways consist of several localized noise sources on a defined path and, hence, are treated as “line” sources, which approximate the impact of several point sources. Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement (Caltrans 2013).

Structures (e.g., buildings and solid walls) and natural topography (e.g., hills and berms) that obstruct the line of sight between a noise source and a receptor further reduce the noise level if the receptor is located within the “shadow” of the obstruction, such as behind a sound wall. This type of sound attenuation is known as *barrier insertion loss*. If a receptor is located behind the wall but still has a view of the source (i.e., the line of sight is not fully blocked), barrier insertion loss would still occur, but to a lesser extent. Additionally, a receptor located on the same side of the wall as a noise source may actually experience an increase in the perceived noise level as the wall can reflect noise back to the receptor, thereby compounding the noise. Noise barriers can provide noise level reductions ranging from approximately 5 dBA (where the barrier just breaks the line of sight between the source and receiver) to an upper range of 20 dBA with a larger barrier (Caltrans 2013: Sections 2.1.4.24 and 5.1.1). Additionally, structures with closed windows can further attenuate exterior noise by a minimum of 20 dBA to 30 dBA (Caltrans 2013: Table 7-1).

Vibration Fundamentals

Vibration can be interpreted as energy transmitted in waves through the ground or man-made structures, which generally dissipate with distance from the vibration source. Vibration is an oscillatory motion through a solid medium in which the motion’s amplitude can be described in terms of displacement, velocity, or acceleration. Because energy is lost during its transfer from one particle to another, vibration becomes less perceptible with increasing distance from the source.

As described in the Federal Transit Administration’s (FTA’s) *Transit Noise and Vibration Impact Assessment Manual*, groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard (FTA 2018). In contrast to airborne noise, groundborne vibration is not a common environmental problem, as it is unusual for vibration from sources such as rubber-tired buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, heavy trucks traveling on rough roads, and certain construction

activities, such as blasting, pile driving, and operation of heavy earth-moving equipment (FTA 2018). Groundborne vibration generated by man-made activities (e.g., road traffic, construction operations) typically weakens with greater horizontal distance from the source of the vibration.

Several different methods are used to quantify vibration. The *peak particle velocity* (PPV) is defined as the maximum instantaneous peak of the vibration signal in inches per second (in/sec), and is most frequently used to describe vibration impacts on buildings. The *root mean square (RMS) amplitude* is defined as the average of the squared amplitude of the signal and is most frequently used to describe the impact of vibration on the human body. Decibel notation (VdB) is commonly used to express RMS vibration velocity amplitude. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include buildings where vibration would interfere with operations within the building or cause damage (especially older masonry structures), locations where people sleep, and locations with vibration-sensitive equipment (FTA 2018).

Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Within the unincorporated areas of the County, residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, schools, historic sites, cemeteries, and recreation areas are also generally considered sensitive to increases in exterior noise levels. These sensitive land uses are also considered vibration-sensitive land uses, which also include commercial and industrial buildings where vibration would interfere with operations within the building, including at vibration levels that may be well below those associated with human annoyance.

Existing Noise Sources and Ambient Levels

Existing noise levels vary widely throughout the unincorporated areas of the County depending on the nature, type, and intensity of existing development. Rural and suburban residential areas generally experience lower ambient noise levels, while areas in highly urbanized regions, along high-volume roadways, and near industrial development generally experience higher ambient noise levels. Generally, quiet suburban areas typically have noise levels in the range of 40–50 dBA, as indicated in Figure 3.13-1. For developed areas within a large, metropolitan region, average (L_{eq}) community noise levels are most often in the range of low 60s to low 70s dBA, while maximum (L_{max}) noise levels and the similar intrusive sound levels (L_{10}) can often reach into the mid to upper 80s dBA, depending on the proximity to heavily traveled roadways and/or other, major noise sources (County Planning 2014).

Transportation noise sources within the Los Angeles County include roadways, railroads, and airports. Interstates 5, 10, 105, 110, 210, 215, 405, 605, and 710 and State Routes 1, 2, 14, 22, 23, 39, 47, 60, 90, 91, 103, 110, 118, 134, 138, and 170, which traverse unincorporated areas of the County, are major existing sources of traffic noise. Some County roads, primarily those that serve as collectors and arterials, are also significant sources of traffic noise. Amtrak and Metrolink

operate passenger rail lines and BNSF and Union Pacific operate freight rail throughout Los Angeles County. See Section 3.8, *Transportation*, for additional details about these services.

There are several airports in the County, but the main airports in operation are Los Angeles International Airport (LAX) in Los Angeles, Hollywood Burbank Airport in Burbank, and Long Beach Airport in Long Beach. There are also a number of local/private landing strips. Non-transportation noise sources within Los Angeles County include agriculture, oil and gas production, industrial facilities, and construction.

3.13.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies pertaining to noise would apply to the Draft 2045 CAP.

Federal Transit Administration Vibration Standards

There are no federal vibration standards or regulations adopted by any agency that are applicable to the evaluation of vibration impacts from land use development projects facilitated by the Draft 2045 CAP measures and actions. However, the FTA has developed guidance that includes vibration criteria that may be used in evaluating groundborne vibration and groundborne noise impacts (FTA 2018: Table 7-5). The vibration damage criteria in the FTA *Transit Noise and Vibration Impact Assessment Manual* are shown in **Table 3.13-1, Vibration Damage Criteria**.

**TABLE 3.13-1
VIBRATION DAMAGE CRITERIA**

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

NOTES: in/sec = inches per second; PPV = peak particle velocity

SOURCE: FTA 2018.

The FTA *Transit Noise and Vibration Impact Assessment Manual* also includes criteria that may be used for evaluating human annoyance from groundborne vibration and noise for the following three land use categories—Vibration Category 1–High Sensitivity, Vibration Category 2–Residential, and Vibration Category 3–Institutional (FTA 2018: Table 6-1):

- **Vibration Category 1–High Sensitivity:** Buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes.

- **Vibration Category 2–Residential:** All residential land uses and any buildings where people sleep, such as hotels and hospitals.
- **Vibration Category 3–Institutional:** Institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment but that still involve activities that could be disturbed by vibration.

The vibration thresholds associated with human annoyance for these three land-use categories are shown in **Table 3.13-2, *Groundborne Vibration and Groundborne Noise Impact Criteria for General Assessment***. No thresholds have been adopted or recommended for commercial, office, or industrial uses.

**TABLE 3.13-2
 GROUNDBORNE VIBRATION AND GROUNDBORNE NOISE CRITERIA FOR GENERAL ASSESSMENT**

Land Use Category	Frequent Events ^a	Occasional Events ^b	Infrequent Events ^c
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB ^d	65 VdB ^d	65 VdB ^d
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

NOTES:

VdB = vibration decibels

- “Frequent Events” is defined as more than 70 vibration events of the same source per day.
- “Occasional Events” is defined as between 30 and 70 vibration events of the same source per day.
- “Infrequent Events” is defined as fewer than 30 vibration events of the same kind per day.
- This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.

SOURCE: FTA 2018.

Occupational Safety and Health Act of 1970

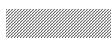
Under the Occupational Safety and Health Act of 1970 (United States Code Title 29, Section 1919 et seq.), the federal Occupational Safety and Health Administration has adopted regulations designed to protect workers against the impacts of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed. The regulations further specify a hearing conservation program that involves monitoring noise to which workers are exposed, ensuring that workers are made aware of overexposure to noise, and periodically testing the workers’ hearing to detect any degradation.


State Laws, Regulations, and Policies


Governor’s Office of Planning and Research Guidelines for Noise Compatible Land Use


The State of California has not adopted statewide standards for environmental noise, but the Governor’s Office of Planning and Research (OPR) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure, as presented in **Figure 3.13-2, *Guidelines for Noise Compatible Land Use*** (OPR 2017).

Land Use Category	Noise Exposure (L_{dn} or CNEL, dBA)					
	55	60	65	70	75	80
Residential – Low Density Single-Family, Duplex, Mobile Home	Normal	Normal	Normal	Normal	Normal	Normal
Residential – Multiple Family	Normal	Normal	Normal	Normal	Normal	Normal
Transient Lodging – Motel, Hotel	Normal	Normal	Normal	Normal	Normal	Normal
School, Library, Church, Hospital, Nursing Home	Normal	Normal	Normal	Normal	Normal	Normal
Auditorium, Concert Hall, Amphitheater	Normal	Normal	Normal	Normal	Normal	Normal
Sports Arena, Outdoor Spectator Sports	Normal	Normal	Normal	Normal	Normal	Normal
Playground, Neighborhood Park	Normal	Normal	Normal	Normal	Normal	Normal
Golf Course, Riding Stable, Water Recreation, Cemetery	Normal	Normal	Normal	Normal	Normal	Normal
Office Building, Business Commercial and Professional	Normal	Normal	Normal	Normal	Normal	Normal
Industrial, Manufacturing, Utilities, Agriculture	Normal	Normal	Normal	Normal	Normal	Normal

 **NORMALLY ACCEPTABLE:** Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

 **CONDITIONALLY ACCEPTABLE:** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

 **NORMALLY UNACCEPTABLE:** New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.

 **CLEARLY UNACCEPTABLE:** New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

The purpose of these guidelines is to provide guidance for maintaining acceptable noise levels in a community setting for different land use types. Noise levels are divided into four general categories, which vary in range according to land use type: “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable.” LA County has developed its own compatibility guidelines in Chapter 11 of the General Plan (the Noise Element) based in part on the OPR Guidelines, and the County is relying on these guidelines for purposes of this analysis. The Government Code requires that a noise element be included in the general plan. The noise element must identify and appraise noise problems in the community and analyze and quantify current and projected noise levels.

California Noise Insulation Standards

The State of California also has established noise insulation standards for new multifamily residential units, hotels, and motels, collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. The standards require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to exterior noise levels greater than 60 dBA CNEL. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

California Department of Transportation Vibration/Groundborne Noise Standards

California has not adopted statewide standards or regulations for evaluating vibration or groundborne noise impacts from land use development projects facilitated by the Draft 2045 CAP measures and actions. However, Caltrans, in its *Transportation and Construction Vibration Guidance Manual*, recommends vibration criteria that may be used for evaluating groundborne vibration impacts (Caltrans 2020). The Caltrans vibration thresholds are shown in **Table 3.13-3, Guideline Vibration Damage Potential Threshold Criteria**.

**TABLE 3.13-3
 GUIDELINE VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA**

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources ^a	Continuous/Frequent Intermittent Sources ^b
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

NOTES:

In/sec = inches per second; PPV = peak particle velocity

- a. Transient sources create a single, isolated vibration event, such as blasting or drop balls.
- b. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

SOURCE: Caltrans 2020: Table 19.

Local Laws, Regulations, and Policies

Los Angeles County Airport Land Use Commission Comprehensive Land Use Plan

In Los Angeles County, the Regional Planning Commission has the responsibility for acting as the airport land use commission and for coordinating the airport planning of public agencies within the County. The airport land use commission coordinates planning for the areas surrounding public use airports. The Comprehensive Land Use Plan provides for the orderly expansion of Los Angeles County's public use airports and the area surrounding them. It is intended to provide for the adoption of land use measures that will minimize the public's exposure to excessive noise and safety hazards. In formulating the Comprehensive Land Use Plan, the Los Angeles County Airport Land Use Commission has established provisions for safety, noise insulation, and the regulation of building height within areas adjacent to each of the public airports in Los Angeles County.

Los Angeles General Plan 2035 Noise Element

Chapter 11 of the *Los Angeles County General Plan 2035*, the Noise Element, is a planning tool to develop strategies and action programs that address the multitude of noise sources and issues throughout Los Angeles County. **Table 3.13-4** summarizes the guidelines used by LA County. Specific regulations that implement these guidelines are set forth in the Los Angeles County Code, as discussed below.

**TABLE 3.13-4
LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE**

Land Use	Community Noise Exposure CNEL, dBA			
	Normally Acceptable ^a	Conditionally Acceptable ^b	Normally Unacceptable ^c	Clearly Unacceptable ^d
Residential: Low-Density Single-Family, Duplex, Mobile Homes	50 to 60	55 to 70	70 to 75	Above 75
Residential: Multi-Family	50 to 65	60 to 70	70 to 75	Above 75
Transient Lodging: Motels, Hotels	50 to 65	60 to 70	70 to 80	Above 80
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70	60 to 70	70 to 80	Above 80
Auditoriums, Concert Halls, Amphitheaters	—	50 to 70	—	Above 65
Sports Arena, Outdoor Spectator Sports	—	50 to 75	—	Above 70
Playgrounds, Neighborhood Parks	50 to 70	—	67 to 75	Above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75	—	70 to 80	Above 80
Office Buildings, Business and Professional Commercial	50 to 70	67 to 77	Above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50 to 75	70 to 80	Above 75	—

NOTES: CNEL = community noise equivalent level; dBA = A-weighted decibels

- Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
- Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
- Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- Clearly Unacceptable: New construction or development should generally not be undertaken.

SOURCE: OPR 2017

The following policies from the General Plan's Noise Element are applicable to the Draft 2045 CAP (County Planning 2015):

Policy N 1.1: Utilize land uses to buffer noise-sensitive uses from sources of adverse noise impacts.

Policy N 1.2: Reduce exposure to noise impacts by promoting land use compatibility.

Policy N 1.3: Minimize impacts to noise-sensitive land uses by ensuring adequate site design, acoustical construction, and use of barriers, berms, or additional engineering controls through Best Available Technologies (BAT).

Policy N 1.4: Enhance and promote noise abatement programs in an effort to maintain acceptable levels of noise as defined by the Los Angeles County Exterior Noise Standards and other applicable noise standards.

Policy N 1.5: Ensure compliance with the jurisdictions of State Noise Insulation Standards (Title 24, California Code of Regulations and Chapter 35 of the Uniform Building Code), such as noise insulation of new multifamily dwellings constructed within the 60 dB (CNEL or L_{dn}) noise exposure contours.

Policy N 1.6: Ensure cumulative impacts related to noise do not exceed health-based safety margins.

Policy N 1.7: Utilize traffic management and noise suppression techniques to minimize noise from traffic and transportation systems.

Policy N 1.9: Require construction of suitable noise attenuation barriers on noise sensitive uses that would be exposed to exterior noise levels of 65 dBA CNEL and above, when unavoidable impacts are identified.

Policy N 1.10: Orient residential units away from major noise sources (in conjunction with applicable building codes).

Policy N 1.11: Maximize buffer distances and design and orient sensitive receptor structures (hospitals, residential, etc.) to prevent noise and vibration transfer from commercial/light industrial uses.

Policy N 1.12: Decisions on land adjacent to transportation facilities, such as the airports, freeways and other major highways, must consider both existing and future noise levels of these transportation facilities to assure the compatibility of proposed uses.

Los Angeles County Noise Ordinance

The Los Angeles County Noise Ordinance (Los Angeles County Code Section 12.08.010 et seq.) identifies exterior noise standards for any source of sound at any location within the unincorporated areas of the county, and specific noise restrictions, exemptions, and variances for exterior noise sources. Several of the ordinance requirements are applicable to aspects of the Project and are discussed below.

The Los Angeles County Noise Ordinance provides maximum operational exterior noise level standards for four general noise zones and establishes maximum exterior noise levels for each zone.

For each of these zones, the Los Angeles County Noise Ordinance states that exterior operational noise levels caused by Project-related on-site fixed sources (i.e., point noise sources) shall not

exceed the levels identified in **Table 3.13-5**, or the ambient noise level, whichever is greater, when the ambient noise level is determined without the noise source operating.

**TABLE 3.13-5
LOS ANGELES COUNTY EXTERIOR NOISE STANDARDS**

Noise Zone	Designated Noise Zone Land Use (receptor property)	Time Interval	Exterior Noise Level dBA
I	Noise-sensitive area: Noise-sensitive zones are designated by the County Health Officer.	Anytime	45
II	Residential Properties: includes all types of residential developments and properties subject to residential zoning.	10 p.m. to 7 a.m. (nighttime)	45
		7 a.m. to 10 p.m. (daytime)	50
III	Commercial Properties: includes all types of commercial developments and also includes properties subject to commercial zoning classifications	10 p.m. to 7 a.m. (nighttime)	55
		7 a.m. to 10 p.m. (daytime)	60
IV	Industrial Properties: includes all properties developed with manufacturing uses and industrial zoning.	Anytime	70

NOTE: dBA = A-weighted decibels

SOURCE: Los Angeles County Ordinance No. 11743, Los Angeles County Code Section 12.08.390.

Part 4 of the Los Angeles County Noise Ordinance also identifies specific restrictions regarding construction noise. Pursuant to the Los Angeles County Noise Ordinance, the operation of equipment used in construction, drilling, repair, alteration, or demolition work is prohibited between the hours of 7:00 p.m. and 7:00 a.m., Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, and anytime on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial property line (Los Angeles County Code Section 12.08.440). The Los Angeles County Noise Ordinance further states that the contractor must conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in **Table 3.13-6**. All mobile and stationary internal combustion-powered equipment and machinery also must be equipped with suitable exhaust and air-intake silencers in proper working order.

**TABLE 3.13-6
LOS ANGELES COUNTY PERMISSIBLE CONSTRUCTION EQUIPMENT NOISE AT RECEPTOR**

Equipment Type	Receptor Type	Daytime Hours	Nighttime Hours
Mobile Equipment Short-term operation (less than 10 days)	Single-family Residential	75	60
	Multi-family Residential	80	64
	Semi-residential/Commercial	85	70
	Business Structures	85	85
Stationary Equipment Long-term operation (more than 10 days)	Single-family Residential	60	50
	Multi-family Residential	65	55
	Semi-residential/Commercial	70	60

SOURCE: Los Angeles County Code Section 12.08.440.

The Los Angeles County Noise Ordinance, Section 12.08.350, provides a presumed perception threshold of 0.01 in/sec RMS. The vibration level of 0.01 in/sec RMS is equivalent to 0.04 in/sec PPV.

3.13.2 Impact Analysis

3.13.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant noise impact if it would:

- a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- b) Generate excessive groundborne vibration or groundborne noise levels; or
- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

The analysis of threshold criterion c) is included in Section 3.10, Hazards and Hazardous Materials (Impact 3.10-5).

3.13.2.2 Methodology

This analysis evaluates the criteria identified in the CEQA Guidelines Appendix G Environmental Checklist and identified by LA County to determine whether the Draft 2045 CAP measures and actions would facilitate a substantial temporary or permanent increase in noise or vibration. The evaluation of noise and vibration impacts was based on a review of regulations and determination of their applicability to the Project, and on a review of existing noise and vibration sources, sensitive land uses, and reference noise and vibration levels from the Federal Highway Administration (FHWA) Roadway Construction Noise Model (FHWA 2006) and FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). Reference levels are noise and vibration emissions for specific equipment or activity types that are well documented and the usage thereof common practice in the field of acoustics. Impacts related to noise and vibration are analyzed qualitatively and focused on the Draft 2045 CAP's potential to expose people to noise levels in excess of local standards. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

Construction Noise

Because precise descriptions and locations of activities involving the construction of site-specific projects facilitated by the Draft 2045 CAP are not known at this time, predictions of construction

noise impacts were based on noise from conventional heavy construction equipment from the FHWA Roadway Construction Noise Model based on maximum sound levels (L_{max}) and average sound levels using default “acoustical usage factors” as presented in Table 1 of the *Roadway Construction Noise Model User’s Guide* (FHWA 2006). The EIR also evaluates the potential for future projects facilitated by Draft 2045 CAP measures and actions to exceed the Los Angeles County Noise Ordinance, per Section 12.08.440 of the Los Angeles County Code, for construction noise with respect to potential projects lasting 10 days or less in total duration, or greater than 10 days in total duration.

Roadway Traffic Noise

Implementation of the Draft 2045 CAP is expected to reduce overall Countywide vehicle trips and vehicle miles traveled (VMT). However, the localized impact on roadway traffic volumes in specific areas may increase or decrease. Because precise descriptions and locations of activities involving a change in roadway traffic volumes for site-specific projects facilitated by the Draft 2045 CAP are not known at this time, it is not possible to quantitatively evaluate traffic noise on specific roadways. Hence, this analysis considers the potential for future projects facilitated by implementation of Draft 2045 CAP measures and actions to contribute to localized roadway traffic volumes. For the purposes of this noise analysis, roadway traffic noise impacts are considered significant when they cause an increase of 3 dBA from existing noise levels, which is a barely perceivable difference outside of a controlled laboratory environment (Caltrans 2013). An increase of 3 dBA would result from an approximate doubling of the traffic volumes on local roadways.

Stationary-Source Noise

Because precise descriptions and locations of projects facilitated by the Draft 2045 CAP are not known at this time, it is not possible to quantitatively evaluate stationary-source noise. Hence, this analysis considers the potential for future projects facilitated by Draft 2045 CAP measures and actions to contribute to stationary-source noise. Stationary sources would not be exempted by Los Angeles County Code Section 12.08.570, and would be subject to LA County’s exterior noise limits in Part 3, Section 12.08.390, or to the specific noise criteria in Part 4. For the purposes of this noise analysis, stationary-source noise impacts are considered significant when they exceed the specified applicable limits in the Los Angeles County Noise Ordinance.

Groundborne Vibration and Groundborne Noise

While Los Angeles County Noise Ordinance Section 12.08.350 establishes a perception threshold for vibration, LA County does not have quantified groundborne vibration velocity criteria for establishing significance. As described in Section 3.13.1.3, above, the FTA and Caltrans have developed guidance that includes criteria for evaluating groundborne vibration and groundborne noise impacts. Because precise descriptions and locations of projects facilitated by the Draft 2045 CAP are not known at this time, predictions of groundborne vibration and groundborne noise impacts were based on vibration levels from conventional heavy construction equipment and common stationary equipment in the FTA *Transit Noise and Vibration Impact Assessment Manual* and Caltrans *Transportation and Construction Vibration Guidance Manual* (FTA 2018; Caltrans

2020). For the purposes of this noise analysis, groundborne vibration and groundborne noise impacts are considered significant when they exceed the specified applicable limits in the FTA *Transit Noise and Vibration Impact Assessment Manual* and Caltrans *Transportation and Construction Vibration Guidance Manual*.

3.13.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas (GHG) emissions in unincorporated areas of the County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics, because the locations and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP*.)

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of noise-related impacts. These and other relevant measures and actions include: Measure T1: Increase Density Near High-Quality Transit Areas and Measure T2: Develop Land Use Plans Addressing Jobs/Housing Balance & Increase Mixed Use. These measures could encourage the densification of residential uses near transit and an increase in mixed-use that includes residences and, as such, bring noise-sensitive uses such as homes in closer proximity to sources of noise. Further, measures and actions associated with Strategy 1, *Decarbonize the Energy Supply*; Measure ES2, *Procure Zero-Carbon Electricity*; Measure ES3, *Increase Renewable Energy Production*; Measures T7, T8, and T9, each regarding the electrification of vehicles; and Strategy 5, regarding the electrification of buildings, could facilitate renewable energy generation and infrastructure projects, the development of which could cause noise. Specific noise impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact 3.13-1: Projects facilitated by the Draft 2045 CAP could generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Significant and Unavoidable*)

Construction

The Draft 2045 CAP is a policy-level document that does not include any site-specific designs or proposals; however, GHG emissions reduction measures that would be implemented with the Draft 2045 CAP would result in short-term construction activities for future projects facilitated by Draft 2045 CAP measures and actions within the unincorporated areas of the County.

Construction activities would use heavy equipment such as excavators, graders, scrapers, bulldozers, backhoes, pile drivers, jackhammers, and concrete mixing trucks, and would result in temporary activities that generate noise. Depending on the type and model of equipment used for construction, typical noise levels for heavy construction equipment range from approximately 80 to 95 dBA L_{max} at a distance of 50 feet from the equipment (FHWA 2006). Actual exposure levels would depend on the number and types of equipment, the intensity of the construction activity, the distance of sensitive receptors to the noise source, and any intervening structures, topography, and noise absorption characteristics of the ground that might affect noise attenuation.

Several Draft 2045 CAP measures would facilitate the construction of new facilities or retrofits to existing buildings to improve energy efficiency and increase renewable energy use, increase solid waste diversion, increase recycled and grey water use, and improve water efficiency. The Draft 2045 CAP also promotes mixed-use and transit-oriented development in city centers, consistent with existing land use plans. Furthermore, several Draft 2045 CAP measures promote minor changes to the existing streetscape, such as traffic-calming improvements and additional transit, pedestrian, and bicycle facilities to promote increased transit accessibility. Measures that would result in construction activities that would require heavy equipment and cause an increase in temporary noise levels in the vicinity of future project sites include expansion of bicycle and pedestrian networks, building electrification for existing buildings, new renewable energy facilities, expansion of energy storage, building retrofits for energy efficiency, new or expanded water treatment facilities, new or expanded waste processing facilities, and demolition of impervious surfaces and planting trees. The size, intensity, and locations of the future projects would dictate whether the level of noise during construction would be above or below the significance thresholds. New facilities may occur as large construction projects, but there is also the potential that the multiple small-scale projects facilitated by the Draft 2045 CAP would occur near each other and at the same time.

Any future projects developed within Los Angeles County facilitated by Draft 2045 CAP measures and actions would be required to comply with the Los Angeles County Noise Ordinance, including Los Angeles County Code Section 12.08.440, which sets allowable construction hours and daytime

and nighttime noise limits. In addition, any future project would be required to conduct its own applicable CEQA analysis, which would determine significance based on each individual project's specific circumstances. Even with mandatory compliance with the Los Angeles County Noise Ordinance, it is possible that some future projects facilitated by implementation of the Draft 2045 CAP would be large in scale and/or intensity, such as utility-scale energy projects (solar, battery storage, substation, transmission) in the Antelope Valley, or located near noise-sensitive receptors such that many pieces of heavy-duty construction equipment and/or heavy-duty trucks may be required and that construction-period noise levels would exceed the significance threshold. Therefore, construction activities for future projects facilitated by the Draft 2045 CAP could result in significant construction noise levels in excess of standards and result in a significant impact.

Operation

Roadway Traffic Noise

Several Draft 2045 CAP measures promote additional transit facilities and operations as well as pedestrian and bicycle facilities to reduce vehicle fuel use by encouraging a shift in the mode of transportation that people use. These measures include expanding bicycle and pedestrian networks, encouraging transit and alternative transportation, and increasing waste diversion from landfills. Such additional transit facilities and pedestrian and bicycle facilities and increased waste diversion from landfills facilitated by the Draft 2045 CAP would reduce regional Countywide vehicle trips and VMT. Furthermore, such future projects would be subject to compliance with local land use and noise compatibility standards. Any projects facilitated by the Draft 2045 CAP measures and actions would be required to comply with Los Angeles County Code Section 12.08.390, which establishes exterior noise standards by land use. Thus, impacts related to substantial increases in ambient noise levels from these measures would be less than significant.

The Draft 2045 CAP also includes measures that promote mixed-use and transit-oriented development in city centers, consistent with existing land use plans. While implementation of the Draft 2045 CAP measures would reduce overall Countywide vehicle trips and VMT, the reduction would not necessarily occur evenly throughout the unincorporated areas of the County. The Draft 2045 CAP would include measures aimed at encouraging increasing residential density, particularly near transit, which could lead to an increase in local vehicle trips in areas that experience densification while still reducing regional Countywide vehicle trips. However, the Draft 2045 CAP itself does not propose changes to the General Plan's land use or zoning code designations for any parcels in the unincorporated areas of the County. Therefore, implementation of the Draft 2045 CAP relies on already-adopted General Plan land use and zoning code designations to achieve densification and associated reductions in regional Countywide vehicle trips and VMT.

In other words, local increases in density could occur with or without adoption of the Draft 2045 CAP based on the existing General Plan land use and zoning code designations. Thus, while future projects facilitating the Draft 2045 CAP measures and actions may increase the likelihood that densities would be proposed at their highest allowed levels, adoption of the Draft 2045 CAP

itself would not increase traffic volumes on local roadways from local increases in density beyond what was previously analyzed based on the existing General Plan land use and zoning code designations. Therefore, adoption of the Draft 2045 CAP would not result in a 3 dBA increase in roadway noise levels, and impacts would be less than significant.

Stationary-Source Noise

Several Draft 2045 CAP measures would promote the construction of new facilities or retrofits to existing buildings to improve energy efficiency and increase renewable energy use, increase solid waste diversion, and increase recycled water treatment and use. Similarly, Draft 2045 CAP measures and actions related to decarbonization of the energy supply, vehicles, and buildings also would facilitate renewable energy and related transmission infrastructure. Further, Draft 2045 CAP measures and actions regarding compost and mulch (i.e., Action W2.3, Action A2.2) would facilitate the development of materials processing facilities. These new facilities would be constructed within or on existing buildings or new development (e.g., rooftops, wastewater treatment plants, landfills) or on open land in more rural parts of the unincorporated County.

The Draft 2045 CAP measures that could reduce stationary-source noise include the sunseting of oil and gas operations and expansion of the County's tree canopy and green spaces, which would provide for greater noise absorption from vegetation. Some Draft 2045 CAP measures could facilitate future projects with new stationary sources of noise, such as from new renewable energy facilities, expansion of energy storage, new or expanded water treatment facilities, and new or expanded waste processing facilities. The types of equipment and locations of these future projects would dictate whether the level of stationary-source noise during operations would be above or below the significance thresholds. Facilities may be constructed at existing facilities, but there is also the potential that the new facilities, such as utility-scale energy projects (solar, battery storage, substation, transmission) in the Antelope Valley, may be built near noise-sensitive receptors.

Even with mandatory compliance with the Los Angeles County Noise Ordinance and General Plan Noise Element Policy N-1.3, it is possible that some future projects associated with implementation of Draft 2045 CAP measures and actions would be large enough in scale and/or intensity, or located near noise-sensitive receptors, such that stationary-source noise levels would exceed the significance threshold. Therefore, stationary noise associated with future projects facilitated by Draft 2045 CAP measures and actions could result in significant operational noise levels in excess of standards.

Below is a list of mitigation measures for future projects with noise levels exceeding the applicable significance thresholds, designed to reduce construction-related and stationary-source noise.

Mitigation Measure 3.13-1: Construction Noise. Construction activities associated with new projects facilitated by the Draft 2045 CAP that occur within 500 feet of noise-sensitive receptors (i.e., residences, parks, schools, historic sites, cemeteries, and recreation areas) shall be evaluated by the project applicant for noise impacts that would result in a 5 dBA increase over existing ambient noise levels at any sensitive receptor. Mitigation measures such as installing temporary sound barriers for construction

activities that occur adjacent to occupied noise-sensitive structures; equipping construction equipment with more effective mufflers, sound-insulating hoods or enclosures, vibration dampers, and other Best Available Control Technology (BACT); and reducing non-essential idling of construction equipment to no more than five minutes shall be incorporated into construction activities to reduce construction-related noise.

Mitigation Measure 3.13-2: Stationary-Source Noise. Before building permits are issued for any project that involves a noise-sensitive use within the 65 dBA CNEL contour (i.e., areas in or above 65 dBA CNEL) exposed to project stationary-source noise levels in excess of applicable standards in the Los Angeles County Noise Ordinance, the project applicant shall retain an acoustical engineer to conduct an acoustic analysis. The acoustic analysis shall identify site design features (e.g., setbacks, berms, parapets, equipment enclosures, equipment mufflers, sound walls, or other similar noise control device or noise barrier) and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling) to ensure compliance with the County's Noise Compatibility Criteria, the California Building Code, and the California Noise Insulation Standards (Title 24 of the California Code of Regulations).

Significance after Mitigation: Significant and Unavoidable. Mitigation Measure 3.13-1 would reduce impacts associated with construction activities. However, because of the potential for construction activities to occur near sensitive uses, and because of the potential intensity of construction activities, it may not be feasible to reduce the impact to a less-than-significant level, and the impact would remain significant and unavoidable. Mitigation Measure 3.13-2 would reduce impacts associated with stationary-source noise, but because exterior noise levels may still exceed the County's noise land use compatibility criteria despite exterior noise attenuation (i.e., noise controls, sound walls, and/or berms), the impact would remain significant and unavoidable. No additional feasible mitigation measures have been identified to further reduce Project-specific incremental contributions to significant noise impacts. Residential land uses comprise the majority of existing sensitive uses in Los Angeles County that would be affected by the increase in Project-generated noise. Construction of sound barriers would be inappropriate to reduce traffic noise impacts for residential land uses that face the roadway because such a measure would create aesthetic and access concerns. Furthermore, for individual development projects, the cost to mitigate off-site noise impacts on existing uses (for example, by implementing noise controls such as sound walls, berms, or the replacement of existing single-paned windows) often is out of proportion with the level of impact.

Criterion b) Whether the Project would generate excessive groundborne vibration or groundborne noise levels.

Impact 3.13-2: Projects facilitated by the Draft 2045 CAP could generate excessive groundborne vibration or groundborne noise levels. (*Significant and Unavoidable*)

Construction

As discussed above, some of the future projects facilitated by implementation of the Draft 2045 CAP would be constructed within or on existing buildings or new development (e.g., rooftops, wastewater treatment plants, landfills), while others, such as composting or mulch facilities or

utility-scale renewable energy projects (e.g., solar photovoltaic generation, battery storage, substation, transmission infrastructure) may be constructed on undeveloped parcels in more rural environments. Measures that would be implemented with the Draft 2045 CAP would result in short-term construction activities within the unincorporated areas of the County. The Draft 2045 CAP is a policy-level document that does not include any site-specific designs or proposals. Although construction details of any future projects are unknown, construction of new projects facilitated by implementation of the Draft 2045 CAP would likely require the use of impact tools that typically are associated with substantial vibrational impacts, such as pile drivers, jackhammers, impact hammers, and earth compaction tools.

The operation of heavy-duty construction equipment would generate localized groundborne vibration and groundborne noise in the vicinity of the construction activity. Measures that would result in construction activities that would require heavy equipment and generate groundborne vibration and groundborne noise include expansion of bicycle and pedestrian networks, building electrification for existing buildings, new renewable energy facilities, expansion of energy storage, building retrofits for energy efficiency, new or expanded water treatment facilities, new or expanded waste processing facilities, and demolition of impervious surfaces and planting trees. Depending on the proximity of the new facilities to vibration-sensitive receptors, construction activities could generate excessive ground vibration and disturb nearby receptors or damage surrounding existing structures. Construction-generated groundborne vibration may exceed the criteria for structural damage at structures near future projects, and this would result in a significant impact. The size, intensity, and locations of the future projects would dictate whether the level of groundborne vibration and groundborne noise during construction would be above or below the significance thresholds. New facilities may occur as large construction projects, but there is also the potential that the multiple small-scale projects would occur near each other and at the same time.

Any future project facilitated by the Draft 2045 CAP would be required to conduct its own applicable CEQA analysis and would determine significance based on the individual project's specifics. It is possible that some future projects facilitated by the Draft 2045 CAP would be large enough in scale and/or intensity, or located near vibration-sensitive receptors, such that multiple pieces of equipment or other sources of groundborne vibration and/or groundborne noise would cause levels to exceed the specified limits in the FTA *Transit Noise and Vibration Impact Assessment Manual* and Caltrans *Transportation and Construction Vibration Guidance Manual*. Therefore, construction activities for future projects facilitated by the Draft 2045 CAP could result in significant construction groundborne vibration and groundborne noise levels in excess of standards and result in a significant impact.

Operation

Caltrans has studied the impacts of propagation of vehicle vibration on sensitive land uses and notes that “heavy trucks, and quite frequently buses, generate the highest earthborne vibrations of normal traffic” (Caltrans 2013). Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that “vibrations measured on freeway shoulders (5 m [meters] from the centerline of the nearest lane) have never exceeded 2 mm/s [millimeters

per second], with the worst combinations of heavy trucks” (Caltrans 2013). “This amplitude coincides with the maximum recommended ‘safe level’ for ruins and ancient monuments (and historic buildings)” (Caltrans 2013). A vibration level of 2 millimeters per second is approximately 0.08 in/sec. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Vehicles traveling along freeways and state routes would cause infrequent and inconsistent vibration events that would attenuate quickly after onset. Sensitive receptors would likely be located further away than 15 meters from a freeway or highway and would therefore experience levels lower than 0.08 in/sec. Further, the FTA guidelines state that buildings that are extremely susceptible to building damage (e.g., historic buildings) could experience structural damage at 0.12 in/sec and Caltrans defines its threshold for extremely fragile buildings at 0.08 in/sec from continuous or frequent intermittent sources (FTA 2018; Caltrans 2020). Thus, roadway traffic is not expected to generate excessive vibration in excess of the FTA’s threshold of 0.12 in/sec or Caltrans’ threshold of 0.08 in/sec for extremely susceptible buildings and associated impacts would be less than significant.

According to the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), stationary equipment such as pumps and compressors generate groundborne vibration levels of 0.5 in/sec PPV at 1 foot (ASHRAE 1999). At 25 feet, this vibration level drops to approximately 0.004 in/sec PPV at 25 feet (approximately 60 VdB). Furthermore, any future project that includes stationary equipment would locate such equipment on building rooftops or within or near buildings such that the equipment would not generate groundborne vibration off the project site. Therefore, groundborne vibration from the operation of such mechanical equipment is not expected to generate excessive vibration; associated impacts would be less than significant.

The following mitigation measure would reduce construction vibration impacts.

Mitigation Measure 3.13-3: Construction Vibration. Individual projects that use vibration-intensive construction equipment, such as pile drivers, jackhammers, and vibratory rollers near vibration-sensitive receptors shall be evaluated by the applicant for potential vibration impacts. If construction-related vibration is determined to exceed the FTA’s vibration annoyance criterion of 78 VdB at sensitive receptor locations or Caltrans criteria for damage or human annoyance as applicable, additional requirements shall be implemented during construction, such as the use of less-vibration-intensive equipment or vibration-reduction construction techniques or strategies (e.g., drilled piles to eliminate the use of a vibration-intensive pile driver, increased setback distances).

Significance after Mitigation: Significant and Unavoidable. Mitigation Measure 3.13-3 would reduce vibration impacts associated with construction activities. However, because of the potential for construction activities to occur near sensitive uses, and because of the potential intensity of construction activities, it may not be feasible to reduce the impact to a less-than-significant level, and the impact would be significant and unavoidable. No additional mitigation measures are feasible.

3.13.2.4 Cumulative Impacts

Criterion a)

Impact 3.13-3: Projects facilitated by the Draft 2045 CAP could make a cumulatively considerable contribution to a significant cumulative impact related to the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Significant and Unavoidable Cumulative Impact*)

The geographic context for the analysis of cumulative noise impacts is Countywide, including the sites of future development facilitated by Draft 2045 CAP measures and actions in the unincorporated areas of the County. More specifically, the geographic context for the evaluation of cumulative construction noise impacts and stationary-source operational noise impacts is generally very small (i.e., a few hundred feet). Noise diminishes rapidly with distance: 6 dBA per doubling of distance for point and stationary sources over acoustically “hard” sites such as asphalt and concrete surfaces, and 7.5 dBA per doubling of distance over acoustically “soft” sites such as soft dirt, grass or scattered bushes and trees. For cumulative operational noise impacts from traffic, the geographic context is generally larger; thus, overall growth in Los Angeles County is considered when assessing potential cumulative impacts. Cumulative impacts could result at various locations within this area from initiation of on-the-ground work in furtherance of a project facilitated by the Draft 2045 CAP measures and actions and could last in perpetuity.

Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015; Los Angeles County 2021), have affected and can be expected to continue to affect the noise environment in locations that could be affected by the construction and operation of projects facilitated by Draft 2045 CAP measures and actions. Portions of Los Angeles County are noisier, and others quieter, under baseline conditions. If the combination of the incremental noise impacts of the Project and the incremental impacts of cumulative projects would not exceed established thresholds, then no significant cumulative impact would exist. However, the Project’s incremental significant impact could cause a significant cumulative impact to occur if multiple projects facilitated by the Draft 2045 CAP were to generate noise in sufficient geographic proximity to one another and one or more noise-sensitive receptors. For example, past, present, or reasonably foreseeable future projects built near a project facilitated by the Draft 2045 CAP could contribute traffic noise levels that, when combined with the incremental increase of the Draft 2045 CAP–facilitated project, could result in a doubling of traffic volumes and result in noise levels greater than the 3 dBA threshold, and thus, a significant cumulative impact. Similarly, if incremental noise impacts of the Project were to combine with the incremental impacts of cumulative projects so as to exceed established thresholds, then a significant cumulative impact also would occur.

Projects in the unincorporated areas would be subject to applicable noise standards and would be required to comply with the Los Angeles County Noise Ordinance, including Los Angeles County Code Section 12.08.440, which sets allowable construction hours and daytime and nighttime noise limits. In addition, future projects facilitated by the Draft 2045 CAP that

require a discretionary approval from a state or local agency would be required to conduct its own CEQA analysis to determine the significance of that individual project's change in the noise environment. Even with mandatory compliance with the Los Angeles County Noise Ordinance, it is possible that noise from projects facilitated by the Draft 2045 CAP combined with noise from nearby projects would be loud enough to result in a cumulatively considerable contribution to a significant cumulative impact. If so, then the Project would have a significant cumulative impact.

Mitigation: Implement Mitigation Measure 3.13-1 and Mitigation Measure 3.13-2.

Significance after Mitigation: While Mitigation Measure 3.13-1 and Mitigation Measure 3.13-2 would reduce the Project-specific incremental contribution, it may not be feasible to reduce the cumulative impact to a less-than-significant level. Thus, post-mitigation cumulative noise impacts would be significant and unavoidable. No additional feasible mitigation measures have been identified to further reduce Project-specific incremental contributions to significant cumulative noise impacts. For residential land uses, which comprise the majority of existing sensitive uses in Los Angeles County that would be affected by the increase in Project-generated noise, construction of sound barriers would be inappropriate to reduce traffic noise impacts because such barriers would create aesthetic and access concerns. For other individual development projects, the cost to mitigate off-site noise impacts on existing uses often is out of proportion with the level of impact.

Criterion b)

Impact 3.13-4: Projects facilitated by the Draft 2045 CAP could make a cumulatively considerable contribution to a significant cumulative impact relating to the generation of excessive groundborne vibration or groundborne noise levels from construction activities. (Significant and Unavoidable Cumulative Impact)

Vibration attenuates rapidly from the source. For example, vibration levels of 2 mm/s (i.e., approximately 0.08 in/sec) represent a worst-case scenario for vibration propagated by vehicles (Caltrans 2013) and, according to ASHRAE, stationary equipment such as pumps and compressors generate groundborne vibration levels of 0.5 in/sec PPV at 1 foot (ASHRAE 1999). At 25 feet, this vibration level drops to approximately 0.004 in/sec PPV at 25 feet (approximately 60 VdB). Therefore, to cause or contribute to a significant cumulative vibration impact, sources of vibration would have to be generating vibration at the same time sufficiently close to a vibration-sensitive receptor.

Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, e.g., County Planning 2014, 2015; Los Angeles County 2021), have affected and can be expected to continue to affect vibration levels in Los Angeles County, including its unincorporated areas. Construction and operation of projects facilitated by Draft 2045 CAP measures and actions, including Measure T7: Electrify County Fleet Vehicles, could combine with the incremental vibration impacts of other cumulative projects, which may include truck and bus routes; projects near active railroad tracks (within 200 feet, according to the FTA's vibration screening distances); projects that use construction vehicles or heavy-duty construction equipment typically associated with substantial

vibrational impacts (such as pile drivers, jackhammers, impact hammers, and earth compaction tools), or could cause or contribute to a significant impact related to localized groundborne vibration and/or groundborne noise, and thus, disturb nearby receptors or cause structural damage. A significant cumulative impact would result.

Even with the implementation of Mitigation Measure 3.13-3, the Project would cause a significant vibration impact that would be cumulatively considerable when taken into consideration with the cumulative projects' incremental impacts over the span of the Draft 2045 CAP. Additional mitigation measures could further reduce the Project-specific increment.

Mitigation: Mitigation Measure 3.13-3.

Mitigation Measure 3.13-4: New Development Near Railroad Tracks. New development that occurs within 200 feet of a railroad track (according to the FTA's vibration screening distances) shall be evaluated for potential vibration impacts. The project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features and/or required building construction improvements to ensure that vibration impacts would remain below acceptable levels of 0.08 in/sec RMS for residential uses.

Significance after Mitigation: Although Mitigation Measure 3.13-3 and Mitigation Measure 3.13-4 would reduce the Project-specific incremental contribution to significant cumulative vibration impacts, it may not be feasible to reduce the cumulative impact to a less-than-significant level. Thus, post-mitigation cumulative vibration impacts as a result of projects facilitated by the Draft 2045 CAP would be significant and unavoidable. No additional mitigation measures are feasible.

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3.14 Population and Housing

This section identifies and evaluates issues related to population and housing to determine whether the Draft 2045 CAP would result in a significant impact due to inducement of substantial unplanned population growth in the unincorporated area or the displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to population and housing request consideration of evidence of exodus from more urbanized areas in favor of more suburban environments and evolving housing and lifestyle preferences and analysis of the impacts that would result from the densification of housing in and near wilderness areas including the Angeles National Forest, which is served by a Metrolink station.

3.14.1 Setting

3.14.1.1 Study Area

The study area for this analysis of impacts to population and housing consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of the County. See **Figure 2-1, *Map of Unincorporated Los Angeles County***, in Chapter 2, *Project Description*.

3.14.1.2 Environmental Setting

This section describes the existing and projected population, housing, and employment trends present in the unincorporated areas of the County. This information has been drawn and modified from the *Los Angeles County General Plan 2035* and the *General Plan Update Draft Environmental Impact Report* for the County's General Plan Update (Los Angeles County 2015, 2014).

Population

According to the *General Plan Update Draft Environmental Impact Report*, which used data provided by the County of Los Angeles, the unincorporated areas of Los Angeles County had a population of 1,066,415 people in 2013. This was 10.9 percent of Los Angeles County's total population at the time. According to Southern California Association of Governments (SCAG) population projection, by 2035, unincorporated areas of Los Angeles County will have a population of 1,399,500 which represents a 31.2 percent change from 2013 through 2035 (SCAG 2020).

Housing

According to the General Plan Draft EIR, which used data provided by the California Department of Finance (DOF), as of 2013, the unincorporated areas of the County had approximately 300,478 housing units. This was about 8.7 percent of Los Angeles County's total housing units. According to the DOF, of these 300,478 housing units in the unincorporated areas, 71 percent were single-family detached homes, 5.9 percent were single-family attached, 19.7 percent were multifamily homes and 3.4 percent were mobile homes. According to SCAG housing projections, the unincorporated areas of the County will have 405,500 housing units by 2035, which represents an increase of 35 percent since 2013 (SCAG 2020). Los Angeles County as a whole is estimated to have 3,852,000 housing units by 2035 which is a 11.2 percent change since 2013.

Employment

According to the General Plan Draft EIR, which used data provided by the California Employment Development Department, as of 2013, the unincorporated areas of the County had 252,660 jobs (Los Angeles County 2014). This is about 5.6 percent of Los Angeles County's total employment of 4,506,400 jobs. According to SCAG employment projections, by 2035, Los Angeles County is expected to have 4,827,000 jobs (SCAG 2020). It is estimated that 6.6 percent or 318,100 jobs will be located within the unincorporated areas of the County.

Jobs-Housing Balance

A jobs-housing balance allows for people's jobs and housing to be within close proximity to each other. This helps shorten commute times and ensures that housing and employment needs are a priority. A 1:1 ratio means that there is one job for every housing unit. When the ratio is unbalanced, people are required to seek housing or employment outside of the area they live. The ratio is calculated by dividing the number of jobs by the number of housing units in a community. If there are less jobs than housing units the jobs to housing ratio would be low, requiring residents to look for work outside of where they live. Areas with more jobs than housing are usually considered major employment hubs with large portions of the workforce commuting in from the surrounding areas. See **Table 3.14-1, Population, Employment, and Housing Projections**.

3.14.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies related to population and housing apply to the Project.

State Laws, Regulations, and Policies

Government Code Section 65580 et seq.

State requirements mandate that housing be included as an element of each jurisdiction's general plan. LA County approved the 2021-2029 Housing Element on November 30, 2021 (LA County 2021b).

**TABLE 3.14-1
 POPULATION, EMPLOYMENT, AND HOUSING PROJECTIONS**

Planning Area	2013				General Plan Buildout (Post 2035)			
	Units (2013)	Population (2013)	Employment (2013)	Jobs/Housing Ratio (2013)	Units	Population	Employment	Jobs/Housing Ratio
Antelope Valley	24,739	93,490	31,838	1.29	278,158	1,070,571	51,219	0.18
Coastal Islands	44	158	870	19.77	21	0	570	27.14
East San Gabriel Valley	63,825	239,218	29,205	0.46	70,097	255,952	53,231	0.76
Gateway	28,743	104,061	30,328	1.06	34,446	120,358	36,820	1.07
Metro	73,068	235,990	59,359	0.81	92,158	301,073	100,906	1.09
San Fernando Valley	9,039	32,488	20,314	2.25	13,464	47,060	24,741	1.84
Santa Clarita Valley	28,501	104,116	21,470	0.75	77,155	237,638	105,881	1.37
Santa Monica Mountains	5,703	21,757	14,326	2.51	6,788	26,128	28,707	4.23
South Bay	19,952	69,474	17,984	0.90	25,929	86,392	24,530	0.94
West San Gabriel Valley	34,765	125,736	12,713	0.36	43,877	156,685	26,539	0.60
Westside	12,099	39,926	14,252	1.18	17,316	55,033	14,592	0.84
Total	300,478	1,066,414	252,659	0.84	659,409	2,356,890	467,736	0.71

SOURCE: County of Los Angeles 2014.

Regional and Local Laws, Regulations, and Policies

Southern California Association of Governments

SCAG is the designated regional planning agency for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. SCAG is a joint powers agency with responsibilities pertaining to regional issues. SCAG’s mandated responsibilities include developing plans and policies with respect to the region’s population growth, transportation programs, air quality, housing, land use, sustainability, and economic development.

Regional Transportation Plan/Sustainable Communities Strategy

Senate Bill 375 requires each Metropolitan Planning Organization to prepare a sustainable communities strategy (SCS) in their regional transportation plan. In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light-duty trucks. For the SCAG region, the 2020-2045 Regional Transportation Plan/

Sustainable Communities Strategy (RTP/SCS)—also called Connect SoCal—was adopted on September 3, 2020, and, as an update to the prior 2016-2040 RTP/SCS.

The 2020-2045 RTP/SCS focuses on the continued efforts of the previous RTP/SCS plans for an integrated approach in transportation and land use strategies in development of the SCAG region through horizon year 2045. The 2020-2045 RTP/SCS includes “Core Vision” that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by location housing, jobs, and transit closer together, and increasing investments in transit and complete streets.

Regional Housing Needs Allocation

As part of Connect SoCal, the 2020-2045 RTP/SCS, SCAG assigns a number of housing units that LA County is required to plan for in the 8-year Housing Element cycle. That number of units is called the Regional Housing Needs Allocation (RHNA). The RHNA identifies the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element. The Government Code requires counties and cities to: (1) zone adequate lands to accommodate its RHNA; (2) produce an inventory of sites that can accommodate its share of the RHNA; (3) identify governmental and nongovernmental constraints to residential development; (4) develop strategies and a work plan to mitigate or eliminate those constraints; and (5) adopt a housing element and update it on a regular basis.

Los Angeles County General Plan 2035

A general plan is a long-range planning document that, alongside the zoning code, governs development in a city or county. The state requires each city and county to adopt a general plan containing seven mandatory elements: land use, open space, circulation, housing, noise, conservation, and safety, along with any number of optional elements as appropriate. The County’s General Plan 2035, which was adopted on October 6, 2015, provides a policy framework for how and where the unincorporated areas would grow through the year 2035. This plan also establishes goals, policies, and programs to foster healthy, livable, and sustainable communities. The General Plan 2035 discusses new housing and jobs within the unincorporated areas of the County in anticipation of population growth in the County and the region.

The following General Plan 2035 policies and programs are relevant to analyzing the Draft 2045 CAP population and housing impacts (Los Angeles County 2015):

Land Use Element

Policy LU 5.1: Encourage a mix of residential land use designations and development regulations that accommodate various densities, building types and styles.

Policy LU 5.3: Support a mix of land uses that promote bicycling and walking, and reduce VMTs.

Policy LU 5.9: Preserve key industrially designated land for intensive, employment-based uses.

Policy LU 5.10: Encourage employment opportunities and housing to be developed in proximity to one another.

Economic Development Strategies

Policy ED 4.1: Develop a range of financial incentives and programs that encourage development and business growth.

Policy ED 4.2: Support the development of community-level economic development strategies in line with the Los Angeles County Strategic Plan for Economic Development.

Policy ED 4.3: Support the development of small business assistance and entrepreneurial programs that are focused on management, financial planning, and technology application.

Growth Management Program

LU-4: Develop a growth management program for the unincorporated areas that does the following:

- Explore the feasibility of implementing a program that uses infrastructure and service levels as a threshold for development and permitting; and
- Explore the feasibility of establishing greenbelts or other growth management strategies in urbanized areas

2021-2029 Housing Element. The 2021-2029 Housing Element provides information on housing stock, households, demographics, and economic factors, all of which have the potential to impact housing development and access to affordable housing. The Housing Element identifies housing issues and needs as well as underutilized sites for development. It also ensures that LA County meets the requirements of state-mandated RHNA (Los Angeles County 2021b).

Policy 1.1: Identify and maintain an adequate inventory of sites to accommodate the County's RHNA.

Policy 2.2: Encourage multi-family residential and mixed-use developments along major commercial and transportation corridors.

Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout the unincorporated areas to increase housing choices for all economic segments of the population.

Policy 11.1: Ensure consistency with the Our County Sustainability Plan through equitable and sustainable land use policy.

Policy 11.4: Prioritize and concentrate new housing developments in areas intended to reduce environmental impacts and with adequate existing and planned infrastructure, such as road networks and water supply, including any areas covered by a County-approved specific plan or area plan that plans for housing, affordable housing, natural resource protection, open space preservation, adequate water supplies, necessary infrastructure, wildfire protection, energy conservation, and other sustainable development features.

3.14.2 Impact Analysis

3.14.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact on population and housing if it would:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- b) Displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.

3.14.2.2 Methodology

The substantial population growth analysis under criteria a) considers whether the Draft 2045 CAP, including projects facilitated by Draft 2045 CAP measures and actions, would result in a substantial population increase. In this context, *substantial* means a population increase that surpasses the forecasted population growth for the region. The methodology acknowledges existing population levels and population forecasts included in the 2021-2029 Housing Element, and estimates population increase resulting from the Project. The displacement analysis under criteria b) considers whether the Project would displace members of the existing population by analyzing potential land use changes, such as residential to nonresidential, so as to necessitate the construction of new housing elsewhere. In determining the level of significance, the analysis assumes that implementation of the Draft 2045 CAP and implementing projects would comply with relevant federal, state, and local laws, regulations, and policies.

3.14.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed GHG reduction strategies and measures. None of the proposed measures or actions indicate locations where individual projects would be constructed, their size, or their specific characteristics, because the locations and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about individual project implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic

level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP.*)

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than the project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of population and housing-related impacts. These and other relevant measures and actions include: Measure T1: Increase Density Near High-Quality Transit Areas and associated Action T1.1 (which could result in residential densification in high-quality transit areas locations, which are more common in urban areas) and Action T1.2 (which could facilitate the increased production of various housing types, such as duplex and triplex buildings, where appropriate); Measure T2 and associated Action T2.1 (which could increase the percentage of residents who could live and work within the same community); Measure E2 and associated Action E2.1 and Action E2.2 (each of which could result in renter protections for affordable housing and/or the provision of new affordable housing); and Measure E6 and associated Action E6.4 (which includes an affordable housing preservation program).

In addition, utility-scale, ground-mounted renewable energy generation and related infrastructure projects facilitated by Draft 2045 CAP measures and actions toward decarbonization of the energy supply could displace members of the existing population if they were constructed in locations identified for residential use by the General Plan and zoning code. Decarbonization of energy section measures in the Draft 2045 CAP include: Measure ES2: Procure Zero-Carbon Electricity; Measure ES3: Increase Renewable Energy Production; and Measure ES4: Increase Energy Resilience. Measures that could facilitate the electrification of vehicles include: Measure T6: Increase ZEV Market Share; Measure T7: Electrify County Fleet Vehicles; Measure T8: Accelerate Freight Decarbonization; and Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles & Equipment. In addition, Strategy 5, Decarbonize Buildings, could facilitate the electrification of buildings. Specific land use and planning impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Impact 3.14-1: Projects facilitated by the Draft 2045 CAP would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that would not induce substantial unplanned population growth in the unincorporated areas. To the contrary, the Draft 2045 CAP would support development allowed under the General Plan land use assumptions and housing expectations set forth in the 2021-2029 Housing Element. The Draft 2045 CAP includes no site-specific residential or other projects. However, projects facilitating the Draft 2045 CAP measures

and actions would be subject to existing General Plan and zoning requirements. Any future project facilitated by the Draft 2045 CAP that proposes a change to the current General Plan or zoning (if such a project were to be proposed) would be subject to a site-specific, project-specific environmental review that would assure that induced growth, if any, would not be unplanned, but rather consistent with the General Plan.

Implementation of the programs contained in the updated 2021-2029 Housing Element would accommodate development required to meet LA County's 2021–2029 RHNA allocation. Under the RHNA allocation, the unincorporated areas of the County are required to provide the zoned capacity to accommodate the development of at least 90,052 units using various land use planning strategies (Los Angeles County 2021a). It has been determined that LA County's inventory of residential sites will be insufficient to accommodate future housing needs. As such, as part of the 2021-2029 Housing Element, LA County includes a rezoning program to accommodate its RHNA gap. The projected population growth as a result of implementing the rezoning program is also consistent with SCAG's planned growth for the unincorporated Los Angeles County region, and also consistent with the planned growth for Los Angeles County as a whole (Los Angeles County 2021b).

Furthermore, the anticipated population increase that would be permitted under the Housing Element's rezoning program would be aligned with the SCAG 2020–2045 RTP/SCS forecasts and substantial unplanned growth in the region would not result (Los Angeles County 2021a). Additionally, the anticipated housing unit increase that would be allowed for through the rezoning program would be aligned with housing unit increase expectations from SCAG's 6th Cycle RHNA. Approval of the Project itself, as a policy document, would not change these forecasts, would not provide any goals, policies, or programs that would significantly increase the dwelling unit and populations projected by SCAG. Therefore, the Draft 2045 CAP would not induce unplanned substantial population growth to the area.

Although projects facilitated by the Draft 2045 CAP could indirectly result in the residential densification of some areas (i.e., suburban areas or wilderness areas, such as the Angeles National Forest, in favor of more urbanized areas), they would not result in an unanticipated increase in density or population growth outside of what was accounted for and projected within the General Plan. Others of the Draft 2045 CAP strategies could promote the construction of larger projects such as utility-scale energy projects (solar, battery storage, substation, transmission) in the Antelope Valley, water recycling facilities, and waste management facilities. These types of facilities are typically sited away from existing residential areas and would likely not displace existing housing or residents. Therefore, impacts would be less than significant.

Mitigation Measures: Not required

Criterion b) Whether the Project would displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.

Impact 3.14-2: Projects facilitated by the Draft 2045 CAP would not displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that would not displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. To the contrary, the projects facilitating the Draft 2045 CAP measures and actions would support affordable housing, promote stability in housing and otherwise allow development as already anticipated by General Plan land use assumptions and anticipated housing projections as per the 2021-2029 Housing Element (Los Angeles County 2021b). Implementation of the measures in the Draft 2045 CAP would involve retrofitting existing building or requiring new developments incorporate water conservation systems, energy efficiency upgrades, and sustainable waste management upgrades. These retrofits and upgrades for new developments are not anticipated to displace existing housing or people. This impact would be less than significant.

Mitigation: Not required.

3.14.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts to population and housing, the geographic area of consideration (i.e., the cumulative impacts study area) is Countywide. This geographic scope of analysis is appropriate for the analysis of population and housing because cumulative projects have the potential to cause significant impacts to unincorporated and incorporated areas of Los Angeles County if they exceed the capacity of current and projected population, housing, and employment trends outlined in the General Plan. Cumulative impacts could occur in these areas from the time that a project facilitated by the Draft 2045 CAP that could induce unplanned population growth or could displace people or housing and would last until sufficient housing would exist to accommodate existing and planned growth.

Criterion a)

Impact 3.14-3: The Project would not cause or make a cumulatively considerable contribution to any significant cumulative impact relating to the inducement of substantial unplanned population growth in an area, either directly or indirectly. (*Less-than-Significant Cumulative Impact*)

The ongoing impacts of past projects are reflected in Section 3.14.1, *Setting*. If LA County's existing inventory of residential sites was insufficient to accommodate the number of units in its RHNA for 2021-2029, then a significant cumulative impact could exist. However, Policy 1.1 of the 2021-2029 Housing Element requires an adequate inventory of vacant and underutilized sites to accommodate LA County's RHNA allocation through land use, planning and zoning. Adequate

sites for 48,543 new housing units already have been identified above the RHNA requirement of 30,145 units. Other present and reasonably foreseeable future projects would have to be found consistent with the General Plan and comply with applicable specific plan, area plan, local coastal plan, community plan, neighborhood plan and zoning requirements. The Draft 2045 CAP's incremental contribution of a less-than-significant impact would not cause, or combine with the impacts of other cumulative projects to cause a significant cumulative impact. Thus, the cumulative impact would be less than significant, and the Project's contribution to this impact would be less-than-cumulatively-considerable.

Mitigation: None required.

Criterion b)

Impact 3.14-4: The Project would not cause or make a cumulatively considerable contribution to any significant cumulative impact relating to displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. (*Less-than-Significant Cumulative Impact*)

The ongoing impacts of past projects are reflected in Section 3.14.1.2, *Environmental Setting*. Other present and reasonably foreseeable future projects, including projects facilitated by the Draft 2045 CAP measures and actions, would be developed in accordance with the General Plan, zoning, and other local land use plans. The Draft 2045 CAP would not displace a substantial number of existing people or housing; rather, as discussed above, the projects facilitating the Draft 2045 CAP measures and actions would support affordable housing, promote stability in housing, and otherwise allow development as already anticipated by General Plan land use assumptions and anticipated housing projections as per the 2021-2029 Housing Element (Los Angeles County 2021b). The Draft 2045 CAP's incremental contribution of a less-than-significant impact would not cause, or combine with the incremental impacts of other cumulative projects to cause a significant cumulative impact. Thus, this cumulative impact would be less than significant, and the Project's contribution to this impact would be less-than-cumulatively-considerable.

Mitigation: None required.

3.15 Transportation

This section identifies and evaluates issues related to transportation to determine whether the Project would result in a significant impact related to the circulation system (as measured by vehicle miles traveled [VMT]), roadway safety, and emergency access. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to transportation suggest the implementation of the Draft 2045 CAP would increase the number of waste facilities in Los Angeles County and thus cause increased trip rates because people would have multiple trash pick-ups per week instead of one.

3.15.1 Setting

3.15.1.1 Study Area

The study area for this analysis of impacts to transportation consists of transportation facilities located in unincorporated areas of Los Angeles County. Transportation facilities include roadways, bicycle, and pedestrian facilities (active transportation), and transit facilities. See Figure 2 1, *Map of Unincorporated Los Angeles County*.

3.15.1.2 Environmental Setting

Vehicle Miles Traveled

CEQA Guidelines Section 15064.3(a) establishes VMT as the most appropriate measure of transportation impacts. Subdivision (a) of this section defines VMT as “the amount and distance of automobile travel attributable to a project.” The term “automobile” refers to on-road passenger vehicles, specifically cars and light trucks. For land use projects and plans, based on the predominant use, the following VMT efficiency metrics and method of estimation are used:

Total VMT per Service Population: The total VMT to and from all zones in the geographic area are divided by the total service population to get the efficiency metric of VMT per service population. The total service population is the sum of the number residents and the number of employees.

Residential (home-based) VMT per capita: All home-based auto vehicle trips are traced back to the residence of the trip-maker (non-home-based trips are excluded) and then divided by the population within the geographic area to get the efficiency metric of home-based VMT per capita (or per resident).

Employment (home-based work) VMT per employee: All auto vehicle trips between home and work are counted, and then divided by the number of employees within the geographic area to get the efficiency metric of home-based work VMT per employee.

Consistent with the LA County’s *Transportation Impact Analysis Guidelines* (TIA Guidelines, LACPW 2020), the VMT analysis conducted for this EIR used the regional Southern California Association of Governments (SCAG) Model to prepare VMT estimates. Through the development of the TIA Guidelines, LA County established the average existing VMT for the unincorporated areas of the County and for the Countywide baseline VMT as shown in **Table 3.15-1**.¹ The average baseline VMT for the unincorporated areas is higher than the baseline VMT for the SCAG region.

**TABLE 3.15-1
 2016 BASELINE VMT METRICS FOR LOS ANGELES COUNTY**

Region	Total VMT per Service Population	Residential VMT per Capita	Employment VMT per Employee
Unincorporated County	35.9	17.0	20.7
SCAG Region	34.2	15.0	19.0

SOURCE: LACPW 2020.

Roadway Network

The California Department of Transportation (Caltrans) is the state agency responsible for the maintenance of freeways and state highways. Los Angeles County Department of Public Works is responsible for the design, construction, operation, maintenance, and repair of roads in the unincorporated areas of the County and in a number of local jurisdictions that contract with LA County for these services. As detailed in the County’s General Plan, the Los Angeles County Highway Plan designates the functional classification system of Los Angeles County’s highway system; the Highway Plan roadway classifications and descriptions are provided in **Table 3.15-2** (County Planning 2015).

¹ The most current version of the SCAG model has a base year of 2012 and future year of 2040 and was developed for the 2016 SCAG Regional Transportation Plan and Sustainable Communities Strategy, April 2016. This was the best and most up-to-date tool available to reflect baseline transportation conditions when analysis of the Project was conducted.

**TABLE 3.15-2
HIGHWAY PLAN ROADWAY CLASSIFICATIONS**

Classification	Description
Major Highway	<p>This classification includes urban highways that are of Countywide significance and are, or are projected to be, the most highly traveled routes. These roads generally require four or more lanes of moving traffic, channelized medians and, to the extent possible, access control and limits on intersecting streets. This width may vary to meet extraordinary circumstances.</p> <p>Also classified as major highways are key connectors, non-urban access ways, and recreational roads. The bulk of these routes are not planned for urban type improvement. However, the full major highway right-of-way width of 100 feet or more is generally required to maintain adequate safety and vehicular capacity.</p>
Secondary Highway	<p>Secondary highways include urban routes that serve or are planned to serve an areawide or Countywide function, but are less heavily traveled than major highways. In a few cases, routes that carry major highway levels of traffic are classified as secondary highways because it is impractical to widen them to major highway standards. In addition to the Countywide function, secondary highways frequently act as oversized collector roads that feed the Countywide system. In this capacity, the routes serve to remove heavy traffic from local streets, especially in residential areas.</p> <p>In urban areas, secondary highways normally have four moving lanes of traffic on 80 feet of right-of-way. However, configuration and width may vary with traffic demand and conditions on the ground. Access control, especially to residential property and minor streets, is desirable along these roads.</p>
Limited Secondary Highway	<p>Limited secondary highways are located in remote foothill, mountain, and canyon areas. Their primary function is to provide access to low-density settlements, ranches, and recreational areas. The standard improvement for limited secondary highways is two traffic lanes on 64 feet of right-of-way. Typically, such improvements consist of 28–30 feet of pavement with graded shoulders. Left-turn pockets and passing lanes may be provided when required for traffic safety. The right-of-way may be increased to 80 feet for additional improvements where traffic or drainage conditions warrant.</p> <p>A uniform building setback shall be established 40 feet from the centerline of all limited secondary highways in order to preserve proper sight distances and to help maintain a rural appearance adjacent to the roadway. This setback shall be in addition to any yard requirement contained in the Zoning Code.</p>
Parkway	The parkway classification is applied to urban and non-urban routes that having park-like features either within or adjacent to the roadway.
Expressway	The expressway classification is primarily for through-traffic with full or partial control of access. Expressways can accommodate 6 to 10 traffic lanes. The width of right of-way varies as necessary to incorporate these features but shall not be less than 80 feet. Roadway improvements vary depending upon the composition and volume of traffic carried.

SOURCE: Los Angeles County 2015.

There are 11 planning areas in Los Angeles County. The main freeways and highways in each of the planning areas are listed below:

Antelope Valley Planning Area. This area is served by portions of Interstate (I) 5 and State Route (SR) 14. The main north–south highways include 30th Street, Sierra Highway, 50th Street, 47th Street, 126th Street, 210th Street, 240th Street, Largo Vista Road, San Gabriel Canyon Road (SR-39), Mount Wilson Red Box Road, Angeles Forest Highway, and Upper Big Tujunga Canyon Road. The east–west highways and secondary highways include: Avenue B, Avenue C, Lancaster Road (SR-138), Avenue D, Avenue J, Avenue K/Avenue K 8, Avenue O, Avenue P, Palmdale Boulevard, Pearblossom Highway, Antelope Highway (SR-138), Big Pines Highway, and Angeles Crest Highway (SR-2).

Coastal Islands Planning Area. Two of the eight California Channel Islands, Santa Catalina Island and San Clemente Island, make up the Coastal Islands Planning Area. Access to Santa Catalina Island is via ferry service from Long Beach, San Pedro, and Dana Point. Access to San Clemente Island is via charter boats from Long Beach, Newport Beach, and San Diego.

East San Gabriel Valley Planning Area. This area is served by portions of I-10, SR-210, SR-57, SR-60, and SR-71. Main north–south highways and secondary highways include Harbor Boulevard, Azusa Avenue, Hacienda Boulevard, and Irwindale Avenue/Sunset Avenue. East–west highway and secondary highways include Colima Road, Amar Road, Sunset Avenue, 7th Street, Badillo Street, Arrow Highway, Baseline Road, and Temple Avenue.

Gateway Planning Area. This area is served by portions of I-710, I-605, I-405, I-105, I-5, SR-91, SR-103, and SR-22. The main north–south highways and secondary highways include Alameda Street, Santa Fe Avenue, Norwalk Boulevard, Carmenita Road, Painter Avenue, Valley View Avenue, and La Mirada Boulevard. East–west highways and secondary highways include Mulberry Drive, Telegraph Road, and Mills Avenue.

Metro Planning Area. This area is served by portions of I-110, I-105, I-10, I-5, I-710, SR-60, and US-101. The main north–south highways and secondary highways include Alameda Street, Central Avenue, Broadway, Atlantic Avenue, Western Avenue, Central Avenue, Santa Ana Avenue, and Atlantic Boulevard. East–west highways and secondary highways include Florence Street, Firestone Boulevard, Century Boulevard, Santa Ana Boulevard, Imperial Highway and El Segundo Boulevard, Rosecrans Avenue, Compton Boulevard, Redondo Beach Boulevard, Rosecrans Boulevard, Manchester Avenue, Florence Avenue, Olympic Boulevard, Whittier Boulevard, 3rd Street, Cesar E Chavez Avenue, and Beverly Boulevard.

San Fernando Valley Planning Area. This area is served by portions of I-210, I-5, I-405, SR-170, SR-134, SR-118, and SR-2. East–west highways include Lake Manor Drive and Foothill Boulevard.

Santa Clarita Valley Planning Area. This area is served by portions of I-5 and SR-14. North–south highways include Sierra Highway and Plum Canyon Road.

Santa Monica Mountains Planning Area. There are no key arterials that pass through the unincorporated areas in this planning area; however, this area is served by portions of US-101.

South Bay Planning Area. This area is served by portions of I-405, I-110, I-105, SR-91, and SR-47. The main north–south highways include Vermont Avenue, Hawthorne Boulevard (SR-107), and La Cienega Boulevard. East–west highways and secondary highways include Torrance Boulevard, Manhattan Beach Boulevard, and Sepulveda Boulevard.

West San Gabriel Valley Planning Area. This area is served by portions of I-210, I-605, I-710, SR-110, I-10, and SR-60. North–south highways include Rosemead Boulevard (SR-19), San Gabriel Boulevard, Sierra Madre Boulevard, Peck Road, and Myrtle Avenue. East–west highways and secondary highways include Potrero Grande Drive, Live Oak Avenue, New York Drive, Woodbury Road, Mariposa Street and Marengo Street, and Huntington Drive.

Westside Planning Area. This area is served by portions of I-405, I-10, and SR-90. La Brea Avenue is the north–south highway and Slauson Avenue and Stocker Street are east–west highways within the planning area.

Transit Network

Los Angeles County is served by a large public transit system that includes rail systems and various bus service options, such as transitways and bus rapid transit systems. The Los Angeles County Metropolitan Transportation Authority (Metro) operates the Metro rail system within Los Angeles County, which has six lines, including two subway (heavy rail rapid transit) lines (the B and D lines) and four light rail lines (the A, C, L, and E lines), and 93 stations. The Metro rail system connects with the Metro Busway bus rapid transit system (the G and J lines) and also with the Metrolink commuter rail system.

Metrolink and Amtrak are two additional rail service operators in Los Angeles County. The Southern California Regional Rail Authority operates the Metrolink commuter rail system, which has its hub in Downtown Los Angeles at Union Station and extends to Ventura, San Bernardino, Riverside, Orange, and San Diego Counties and serves some of the unincorporated areas. Amtrak provides interstate service from points around the United States to Union Station, as well as regional service between major cities throughout California.

The Metro bus system comprises 140 lines/170 routes serving 16,000 bus stops in Los Angeles County, per the NextGen Bus Plan (Metro 2020), which has implemented a reorganization of Metro transit service over approximately the last 9 months. With the transforming landscape of transportation and travel demand within Los Angeles County and addition of Metro rail and the bus rapid transit system, Metro service has been observing a decline in ridership since 2014. Metro approved the NextGen Bus Plan in October 2020 to provide a better bus system for the County.

Los Angeles County Department of Public Works and LAGOBUS operate fixed-route shuttle services and the Link to provide an affordable and efficient transit service (generally with a frequency of 30 to 60 minutes) to key destinations for residents in communities in the unincorporated areas of the County:

- Topanga Shuttle service connects Topanga/Woodland Hills and Santa Monica
- Acton/Agua Dulce Shuttle service in Acton and Agua Dulce connects to Santa Clara Transit Station and Newhall Metrolink Station
- Avocado Heights/Bassett/West Valinda Shuttle service in Avocado Heights
- Height Hopper Shuttle connects Hacienda Height and Rowland Heights communities
- East Valinda Shuttle
- Edmund D. Edelman’s Children’s Court Shuttle service in East Los Angeles
- El Sol Shuttle service in East Los Angeles
- Sunshine Shuttle service in South Whittier
- Wellness Center Shuttle services the Los Angeles County/USC Medical Center

The Link provides services on the following routes and para transit service in the unincorporated areas of the County:

- Athens Shuttle service in West Athens–Westmont
- Baldwin Hills Parklands Shuttle service connects La Cienega/Jefferson Boulevard Metro Station to Kenneth Hahn State Recreation Area
- Florence–Firestone/Walnut Park Shuttle service in Florence-Firestone and Walnut Park
- King Medical Center Shuttle service in Willowbrook
- Lennox Shuttle service in Lennox
- Willowbrook Shuttle

These shuttle services connect with transit providers such as Metro, Metrolink, Torrance Transit, Los Angeles Department of Transportation DASH, Gardena Bus Lines, Culver City Bus, Gardena Bus lines, Inglewood I-Line Trolley, Big Blue Bus, Santa Clara Transit, La Puente Link, Foothill Transit, La Puente Link, Alhambra Community Transit, El Sol Shuttle, Monterey Park Spirit, Montebello Transit, and Norwalk Transit.

Active Transportation Network

Los Angeles County has a mix of rural, suburban, and urban communities that provide different opportunities for and challenges to active modes of transportation such as walking and biking. The pedestrian network generally includes sidewalks, shared use paths, and trails. To enhance walkability in the communities, a plan for pedestrian facilities has been prepared for unincorporated areas of the County. The Step by Step Los Angeles County plan (Los Angeles County Department of Public Health 2019) is discussed in detail in Section 3.15.1.3.

Per LA County’s 2012 Bicycle Master Plan, bicycle facilities in unincorporated areas of the County are classified as follows (LA County DPW 2012):

Class I – Bicycle Path: Bike paths, also called shared-use paths or multi-use paths, are paved rights-of-way for exclusive use by bicyclists, pedestrians, and other non-motorized modes of travel. They are physically separated from vehicular traffic and can be constructed in roadway rights-of-way or exclusive rights-of-way. Most of the Los Angeles County bicycle paths are located along creek and river channels and along the beach.

Class II – Bicycle Lane: Bike lanes are defined by pavement striping and signage used to allocate a portion of a roadway for exclusive bicycle travel. Bike lanes are one-way facilities on either side of a roadway. Bike lanes are located adjacent to a curb where no on-street parking exists. Where on-street parking is present, bike lanes are striped to the left side of the parking lane.

Class III – Bicycle Route: Bike routes provide shared use with motor vehicle traffic within the same travel lane. Designated by signs, bike routes provide continuity to other bike facilities or designate preferred routes through corridors with high demand.

Class IV – Bikeways: A Class IV Bikeway (separated bikeway) is a bikeway for the exclusive use of bicycles and includes a separation required between the separated bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

3.15.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

There are no federal laws, regulations, or policies pertaining to transportation that apply to the Draft 2045 CAP.

State Laws, Regulations, and Policies

Senate Bill 743

On September 27, 2013, Governor Edmund G. Brown Jr., signed Senate Bill (SB) 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline review under the CEQA process for several categories of development projects, including the development of infill projects in transit priority areas, and to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas (GHG) emissions. SB 743 mandates that alternative metric(s) for determining impacts relative to transportation shall be developed to replace the use of level of service (LOS) in CEQA documents.

Pursuant to SB 743, the CEQA Guidelines were updated in December 2018 to add Section 15064.3, *Determining the Significance of Transportation Impacts*, which describes specific considerations for evaluating a project's transportation impacts using VMT methodology. Additionally, the Governor's Office of Planning and Research (OPR) released a *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR 2018) to provide guidance on VMT analysis. In this Technical Advisory, OPR provides its recommendations to assist lead agencies in screening out projects from VMT analysis and selecting a significance threshold that may be appropriate for their particular jurisdictions. While OPR's Technical Advisory is not binding on public agencies, CEQA allows lead agencies to "consider thresholds of significance . . . recommended by other public agencies, provided the decision to adopt those thresholds is supported by substantial evidence" (CEQA Guidelines Section 15064.7[c]).

CEQA Guidelines Section 15064.3(b) is divided into four subdivisions as follows:

1. **Land Use Projects.** Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within 0.5 miles of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact.² Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.
2. **Transportation Projects.** Transportation projects that reduce, or have no impact on, VMT should be presumed to cause a less than significant transportation impact. For roadway

² OPR's Technical Advisory 2018; Public Resources Code Section 21064.3 ("Major transit stop" means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods."). See also Public Resources Code Section 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.")

capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

3. **Qualitative Analysis.** If existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may analyze the project's VMT qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.
4. **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's VMT, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate VMT and any revisions to model outputs should be documented and explained in the environmental document prepared for the project.

Since projects facilitated by the Draft 2045 CAP measures and actions could fall under either the Land Use Projects or Transportation Projects categories, CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(2) would apply to the Draft 2045 CAP.

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act; SB 375) supports the state's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, the California Air Resources Board sets regional targets for GHG emissions reductions from passenger vehicle use.

Each of California's MPOs must prepare a sustainable communities strategy (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. California Air Resources Board must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG targets.

SCAG adopted its updated RTP/SCS in October 2020 to address requirements of SB 375. This legislation is relevant to evaluation of the Project's transportation impacts because the Project includes strategies to reduce transportation-related GHG, which may be complementary to or consistent with strategies identified in RTP/SCS. SCAG's adopted RTP, per SB 375 (*Connect SoCal*) is discussed below.

California Department of Transportation

As the owner and operator of the state highway system, Caltrans implements established state planning priorities in all functional plans, programs, and activities. Caltrans coordinates and

consults with local jurisdictions when proposed local land use planning and development may impact state highway facilities.

The Caltrans *Transportation Impact Study Guide* establishes VMT as Caltrans' primary review focus when evaluating local land use projects, replacing LOS as the metric used in CEQA transportation analyses (Caltrans 2020a). Caltrans recommends use of OPR's recommended thresholds and guidance on methods of VMT assessment found in OPR's Technical Advisory (OPR 2018) for land use projects. In addition to VMT, the 2020 *Transportation Impact Study Guide* states that it may request a targeted operational and safety analysis to address a specific geometric or operational issue related to the state highway system and connections with the state highway system.

In addition, Caltrans issued the *Transportation Analysis Framework: Evaluating Transportation Impacts of State Highway System Projects* (Caltrans 2020b), which is one component of a set of materials prepared by Caltrans to guide the implementation of SB 743. The purpose of this document is to assist Caltrans district staff and others responsible for assessing likely transportation impacts as part of environmental review of proposed projects on the state highway system by providing guidance on the preferred approach for analyzing the VMT attributable to proposed transportation projects (induced travel) in various project settings.

Regional and Local Laws, Regulations, and Policies

Southern California Association of Governments Regional Transportation Plan/ Sustainable Communities Strategy

SCAG develops the RTP, which presents the transportation vision for Los Angeles, Orange, San Bernardino, Imperial, Riverside, and Ventura counties. SB 375 was enacted to reduce GHG emissions from automobiles and light trucks through integrated transportation, land use, housing and environmental planning. Under the law, SCAG is tasked with developing an SCS, an element of the RTP that provides a plan for meeting emissions reduction targets set forth by the California Air Resources Board. The SCS outlines the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The SCS is intended to focus the majority of new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern is intended to support and complement the proposed transportation network that emphasizes system preservation, active transportation, and transportation demand management measures.

The 2020–2045 RTP/SCS, also known as *Connect SoCal*, is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable, and prosperous region by making connections between transportation networks, between planning strategies, and between the people whose collaboration can improve the quality of life for Southern Californians (SCAG 2020). The SCAG Regional Council adopted Connect SoCal on September 3, 2020.

This regional planning document is relevant to the evaluation of the Project's transportation impacts because the Project would include measures and actions to reduce transportation-related GHG emissions, which may be complementary to or consistent with strategies identified in the RTP/SCS.

Los Angeles County Metropolitan Transportation Authority

Metro is the County-level transportation planning and public transportation operating agency that was created by the state to set policy and to coordinate, plan, fund, build, and operate transit services and transportation programs throughout Los Angeles County. Metro supports the transportation improvement programs of the 88 cities and 16 municipal transit operators within Los Angeles County, as well as Los Angeles's paratransit provider, Access Services, and its regional commuter rail service provider, Metrolink. Metro also is responsible for the preparation of the Long-Range Transportation Plan and the Short-Range Transportation Plan. The current Long- and Short-Range Transportation Plans are the 2020 Long-Range Transportation Plan (Metro 2020) and the 2014 Short-Range Transportation Plan (Metro 2014). The transportation plans include all major transit and highway projects (partially or fully funded), existing programs and policies, and new policies and initiatives required to achieve Metro's regional goals.

Los Angeles County Department of Public Works

The Los Angeles County Department of Public Works adopted its *Transportation Impact Analysis Guidelines* on July 23, 2020 (LA County DPW 2020). The *Transportation Impact Analysis Guidelines* include guidance and requirements for VMT analysis of development projects, including project screening, analysis methodology, significance criteria, impact assessment, and mitigation strategies. Significance criteria in the *Transportation Impact Analysis Guidelines* for land use projects are focused on a project's potential to increase VMT above thresholds that are tied to regional averages. For transportation projects, significance criteria only apply to projects that would increase capacity or otherwise induce additional travel on the roadway network. Since the Project is intended to reduce VMT, most, if not all, Draft 2045 CAP measures would be screened from detailed analysis consistent with the *Transportation Impact Analysis Guidelines*.

Los Angeles County General Plan Mobility Element

The Mobility Element of the General Plan contains goals designed to further LA County's mobility strategy pursuant to the California Complete Streets Act of 2007. The Mobility Element addresses this requirement with policies and programs that consider all modes of travel, with the goal of making streets safer, accessible, and more convenient to walk, ride a bicycle, or take transit (County Planning 2015). As mentioned previously, a project's impact on automobile delay or LOS is no longer a consideration when identifying a significant impact under CEQA; therefore, the General Plan policies related to performance of roadway system are not included in this discussion. The relevant goals and policies within the Mobility Element are presented below (Los Angeles County 2015).

Goal M 1: Street designs that incorporate the needs of all users. (Complete Streets)

Policy M 1.1: Provide for the accommodation of all users, including pedestrians, motorists, bicyclists, equestrians, users of public transit, seniors, children, and persons with disabilities when requiring or planning for new, or retrofitting existing, roads and streets.

Policy M 1.2: Ensure that streets are safe for sensitive users, such as seniors and children.

Policy M 1.3: Utilize industry standard rating systems, such as the Institute for Sustainable Infrastructure (ISI) Rating System, to assess sustainability and effectiveness of street systems for all users.

Goal M 2: Interconnected and safe bicycle- and pedestrian-friendly streets, sidewalks, paths and trails that promote active transportation and transit use. (Active Transportation Design)

Policy M 2.1: Design streets that accommodate pedestrians and bicyclists, and reduce motor vehicle accidents through a context-sensitive process that addresses the unique characteristics of urban, suburban, and rural communities.

Policy M 2.2: Accommodate pedestrians and bicyclists, and reduce motor vehicle accidents by implementing the following street designs, whenever appropriate and feasible:

- Lane width reductions to 10 or 11 feet in low-speed environments with a low volume of heavy vehicles.
- Wider lanes may still be required for lanes adjacent to the curb, and where buses and trucks are expected.
- Low-speed designs.
- Access management practices developed through a community-driven process.
- Back in angle parking at locations that have available roadway width and bike lanes, where appropriate.

Policy M 2.3: Accommodate pedestrians and bicyclists, and reduce motor vehicle accidents by implementing the following intersection designs, whenever appropriate and feasible:

- Right angle intersections that reduce intersection skew.
- Smaller corner radii to reduce crossing distances and slow turning vehicles.
- Traffic calming measures, such as bulb-outs, sharrows, medians, roundabouts, and narrowing or reducing the number of lanes (road diets) on streets.
- Crossings at all legs of an intersection.
- Shorter crossing distances for pedestrians.
- Right-turn channelization islands. Sharper angles of slip lanes may also be utilized.
- Signal progression at speeds that support the target speed of the corridor.
- Pedestrian push buttons when pedestrian signals are not automatically recalled.
- Walk interval on recall for short crossings.
- Left-turn phasing.
- Prohibit right turn on red.
- Signs to remind drivers to yield to pedestrians.

Policy M 2.4: Ensure a comfortable walking environment for pedestrians by implementing the following, whenever appropriate and feasible:

- Designs that limit dead-end streets and dead-end sidewalks.
- Adequate lighting on pedestrian paths, particularly around building entrances and exits, and transit stops.
- Designs for curb ramps, which are pedestrian friendly and compliant with the American Disability Act (ADA).
- Perpendicular curb ramps at locations where it is feasible.
- Pedestrian walking speed based on the latest standard for signal timing. Slower speeds should be used when appropriate (i.e., near senior housing, rehabilitation centers, etc.)
- Approved devices to extend the pedestrian clearance times at signalized intersections.
- Accessible Pedestrian Signals (APS) at signalized intersections.
- Pedestrian crossings at signalized intersections without double or triple left or right turn lanes.
- Pedestrian signal heads, countdown pedestrian heads, pedestrian phasing and leading pedestrian intervals at signalized intersections.
- Exclusive pedestrian phases (pedestrian scrambles) where turning volume conflicts with very high pedestrian volumes.
- Advance stop lines at signalized intersections.
- Medians or crossing islands to divide long crossings.
- High visibility crosswalks.
- Pedestrian signage.
- Advanced yield lines for uncontrolled crosswalks.
- Rectangular Rapid Flashing Beacon or other similar approved technology at locations of high pedestrian traffic.
- Safe and convenient crossing locations at transit stations and transit stops located at safe intersections.

Policy M 2.5: Ensure a comfortable bicycling environment by implementing the following, whenever appropriate and feasible:

- Bicycle signal heads at intersections.
- Bicycle signal detection at all signalized intersections.
- Wayfinding signage.
- Road diet techniques, such as lane narrowing, lane removal, and parking removal/restriction.
- Appropriate lighting on all bikeways, including those in rural areas.

- Designs, or other similar features, such as: shoulder bikeways, cycle tracks, contra flow bike lanes, shared use paths, buffered bike lanes, raised bike lanes, and bicycle boulevards.

Policy M 2.6: Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible.

Policy M 2.7: Require sidewalks and bikeways to accommodate the existing and projected volume of pedestrian and bicycle activity, considering both the paved width and the unobstructed width available for walking.

Policy M 2.8: Connect pedestrian and bicycle paths to schools, public transportation, major employment centers, shopping centers, government buildings, residential neighborhoods, and other destinations.

Policy M 2.9: Encourage the planting of trees along streets and other forms of landscaping to enliven streetscapes by blending natural features with built features.

Policy M 2.10: Encourage the provision of amenities, such as benches, shelters, secure bicycle storage, and street furniture, and comfortable, safe waiting areas near transit stops.

Policy M 2.11: Promote the continuity of streets and sidewalks through design features, such as limiting mid-block curb cuts, encouraging access through side streets or alleys, and promoting shorter block lengths.

Goal M 3: Streets that incorporate innovative designs. (Innovative Street Design)

Policy M 3.1: Facilitate safe roadway designs that protect users, preserve state and federal funding, and provide reasonable protection from liability.

Policy M 3.2: Consider innovative designs when part of an accepted standard, or when properly vetted through an appropriate engineering/design review, in compliance with all state and federal laws.

Policy M 3.3: Complete the following studies prior to the implementation of innovative design concepts:

- An analysis of the current and future context of the community and neighborhood in which they are proposed;
- A balanced assessment of the needs of all users and travel modes (i.e., pedestrian, bicycle, transit, vehicular, and equestrian, where appropriate);
- A technical assessment of the operational and safety characteristics for each mode; and
- A consistency check with transportation network plans, including the Highway Plan, Bicycle Master Plan, and Community Pedestrian Plans.

Goal M 4: An efficient multimodal transportation system that serves the needs of all residents.

Policy M 4.1: Expand transportation options that reduce automobile dependence.

Policy M 4.2: Expand shuttle services to connect major transit centers to community points of interest.

Policy M 4.3: Maintain transit services within the unincorporated areas that are affordable, timely, cost-effective, and responsive to growth patterns and community input.

Policy M 4.4: Ensure expanded mobility and increase transit access for underserved transit users, such as seniors, students, low-income households, and persons with disabilities.

Policy M 4.5: Encourage continuous, direct routes through a connected system of streets, with small blocks and minimal dead ends (cul-de-sacs).

Policy M 4.8: Provide and maintain appropriate signage for streets, roads and transit.

Policy M 4.9: Ensure the participation of all potentially affected communities in the transportation planning and decision-making process.

Policy M 4.10: Support the linkage of regional and community-level transportation systems, including multimodal networks.

Policy M 4.11: Improve the efficiency of the public transportation system with bus lanes, signal prioritization, and connections to the larger regional transportation network.

Policy M 4.12: Work with adjacent jurisdictions to ensure connectivity and the creation of an integrated regional network.

Policy M 4.13: Coordinate with adjacent jurisdictions in the review of land development projects near jurisdictional borders to ensure appropriate roadway transitions and multimodal connectivity.

Policy M 4.14: Coordinate with Caltrans on mobility and land use decisions that may affect state transportation facilities.

Policy M 4.15: Reduce vehicle trips through the use of mobility management practices, such as the reduction of parking requirements, employer/institution-based transit passes, regional carpooling programs, and telecommuting.

Policy M 4.16: Promote mobility management practices, including incentives to change transit behavior and using technologies, to reduce VMTs.

Goal M 5: Land use planning and transportation management that facilitates the use of transit.

Policy M 5.1: Facilitate transit-oriented land uses and pedestrian-oriented design to encourage transit ridership.

Policy M 5.2: Implement parking strategies that facilitate transit use and reduce automobile dependence.

Policy M 5.3: Maintain transportation right-of-way corridors for future transportation uses, including bikeways, or new passenger rail or bus services.

Goal M 7: Transportation networks that minimizes negative impacts to the environment and communities.

Policy M 7.5: In rural areas, require rural highway and street standards that minimize the width of paving and the placement of curbs, gutters, sidewalks, street lighting, and traffic signals, except where necessary for public safety.

Los Angeles County Bicycle Master Plan 2012 and Bicycle Master Plan Update

The Los Angeles County Board of Supervisors adopted the current Bicycle Master Plan in March 2012. The plan estimates that within the Metro/Downtown Los Angeles area by the year 2030, the total number of daily bicycle commuters could increase from the current estimate of 2,612 to 12,021 (Los Angeles County DPW 2012). The bike-to-work mode share is estimated by the plan to increase from the current 0.30 percent to 1.0 percent for that subarea. Metro publishes the LA Metro Bike Map, a regional map that includes existing bicycle facilities within all jurisdictions of Los Angeles County. The Bike Map identifies Class II Bike Lanes, Class III Bike Routes, and Bicycle Boulevards throughout the County. On October 15, 2019, the Board of Supervisors directed Los Angeles County Department of Public Works to initiate an update to the 2012 Bicycle Master Plan in partnership with Regional Planning, Beaches and Harbors, Parks and Recreation, the Sheriff's Department, and Highway Patrol. Los Angeles County Department of Public Works would also revise the plan's program EIR to analyze transportation impacts using VMT rather than LOS. As of this writing, no updates to the Bicycle Master Plan have been completed.

Along with the proposed bikeways, the current Bicycle Master Plan recommends various bicycle-friendly policies and programs to promote bicycle ridership among users of all ages and skill sets within Los Angeles County. The relevant goals and policies are presented below:

Goal 1: Bikeway System. Expanded, improved, and interconnected system of county bikeways and bikeway support facilities to provide a viable transportation alternative for all levels of bicycling abilities.

Policy 1.1: Construct bikeways proposed in 2012 County of Los Angeles Bicycle Master Plan over the next 20 years.

Policy 1.3: Coordinate with developers to provide bicycle facilities that encourage biking and link to key destinations.

Policy 1.4: Support the development of bicycle facilities that encourage new riders.

Policy 1.6: Develop a bicycle parking policy.

Goal 2: Increased safety of roadway for all users.

Policy 2.1: Implement projects that improve the safety of bicyclists at key locations.

Policy 2.2: Encourage alternative street standards that improve safety such as lane reconfigurations and traffic calming.

Policy 2.4: Evaluate impacts on bicyclists when designing new or reconfiguring streets.

Policy 2.6: Support development of a Healthy Design Ordinance.

Policy 2.7: Support the use of the Model Design Manual for Living Streets and Design as a reference for LACPW.

Step by Step Los Angeles County

In 2019, the Los Angeles County Board of Supervisors adopted *Step by Step Los Angeles County: Pedestrian Plan for Unincorporated Communities* (Step by Step), a policy framework for how the County proposes to get more people walking, make walking safer, and support healthy active lifestyles. It also includes Community Pedestrian Plans for the communities of Lake Los Angeles, Walnut Park, Westmont/West Athens, and Whittier–Los Nietos. The Step by Step pedestrian plan communities were selected based on key criteria that identified communities in unincorporated Los Angeles County with high rates of pedestrian collisions that resulted in death or injury (Los Angeles County Department of Public Health 2019). Additionally, one goal of the inaugural pedestrian plans that were approved in 2019 was to pilot pedestrian planning and design in a mix of rural (Lake Los Angeles), urban (Westmost–West Athens and Walnut Park), and suburban (West Whittier–Los Nietos) communities. The next rounds of Community Pedestrian Plans are slated to be developed for the unincorporated neighborhoods of East Los Angeles, East Rancho Dominguez, Florence–Firestone, and Willowbrook/West Rancho Dominguez–Victoria in the 2020 to 2023 timeframe.

Step by Step outlines actions, policies, procedures, and programs that LA County will consider to enhance walkability across unincorporated communities. The pedestrian plans also provide guidance in developing a network of sidewalks, off-street paths, trails, and facilities (such as lighting, crosswalks, and benches) that allow people to walk safely and comfortably to key destinations. It includes policies that address safety, traffic, education, and programs to promote a safe, walkable community. The relevant goals and policies of Step by Step Los Angeles County are presented below:

Goal 1: Safe Streets. Eliminate all fatalities and severe injuries involving people walking.

Policy SS-1: Coordinate across County departments, and with the California Highway Patrol, community members, and organizations to implement Vision Zero Los Angeles County to eliminate traffic-related pedestrian fatalities and severe injuries.

Policy SS-2: Elevate the pedestrian walking experience by enhancing pedestrian crossings and implementing traffic calming measures where feasible and appropriate.

Goal 2: Make Walking the Easy and Healthy Choice. Communities, streets, and sidewalks are designed to promote walking and healthy living.

Policy EH-1: Make transportation, land use, and building design or site planning decisions that make walking a logical first choice transportation option for residents and visitors.

Policy EH-2: Design pedestrian-friendly streets to make walking a convenient first choice for daily activities.

Policy EH-3: Provide opportunities for community participation in creating safe and inviting pedestrian environments.

Goal 3: Connectivity. Develop and maintain a complete pedestrian network that links transit, schools, parks, and other key destinations in the community.

Policy C-1: Support projects that increase pedestrian connectivity, reduce walking distances, and enhance safety.

Policy C-2: Create a barrier-free pedestrian network. Maintain pedestrian facilities to ensure they are free of hazards and obstructions.

Goal 4: Equity. Make unincorporated Los Angeles County more walkable for all through equity in public engagement, service delivery, accessibility, planning, and capital investments.

Policy EQ-1: Prioritize the needs of low-income communities of color and the most vulnerable users.

Policy EQ-2: Create a pedestrian network that supports people of all abilities – especially youth, seniors, and those with disabilities. This includes, but is not limited to, wide sidewalks, curb ramps, accessible pedestrian signals to aid the visually impaired, and adequate pedestrian crossing times.

Goal 5: Safe Communities. Address real and perceived personal safety concerns to encourage walking.

Policy SC-1: Implement community environmental design and community programs that enhance public safety that supports people of all abilities – especially youth, seniors, and those with disabilities. This includes, but is not limited to, wide sidewalks, curb ramps, accessible pedestrian signals to aid the visually impaired, and adequate pedestrian crossing times.

Goal 6: Sustainability and Preservation. Pedestrian projects and programs enhance the natural environment including clean air and water.

Policy SP-1: Improve air quality and reduce greenhouse gas emissions through reduced car dependency.

Policy SP-2: Enhance the natural environment through the greening of pedestrian space by planting trees and vegetation, and the use of efficient materials and processes in sidewalk and street enhancement projects.

3.15.2 Impact Analysis

3.15.2.1 Significance Criteria

The Project would result in a significant impact to transportation if it would:

- a) Conflict with an applicable program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b);
- c) Substantially increase hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- d) Result in inadequate emergency access.

3.15.2.2 Methodology

As described in Chapter 2, *Project Description*, the Draft 2045 CAP is being evaluated at a programmatic level, and the analysis is based on information available to LA County where reasonably foreseeable physical changes in the environment could be considered. This analysis is based in part on a review of the transportation information contained in the relevant planning documents for unincorporated areas of Los Angeles County. Planning documents considered in the analysis of transportation impacts included Connect SoCal (the 2020–2045 RTP/SCS), the General Plan Mobility Element, the Los Angeles County Bicycle Master Plan, and Step by Step. Impacts related to transportation are, for the most part, analyzed qualitatively and are focused on the Draft 2045 CAP’s potential to impact existing transportation facilities and circulation in Los Angeles County during construction and operation.

The impact of the Draft 2045 CAP on VMT, however, is analyzed quantitatively consistent with CEQA Guidelines Section 15064.3(b). To quantify the reductions in VMT that could be realized through implementation of the Draft 2045 CAP, a detailed analysis was conducted as documented in this EIR. The methodology for that analysis is provided in Draft EIR Appendix F. Briefly, the analysis considered the estimated benefits of the Draft 2045 CAP strategies for VMT reductions using a state-of-the-practice approach from the California Air Pollution Control Officers Association (CAPCOA) GHG Handbook (CAPCOA 2010). GHG reduction measures and implementing actions were first screened to identify those that could be quantified. Then, using the travel demand forecasting results from the SCAG regional travel demand model, Countywide VMT data were used, based on trip purpose and geography, to estimate the benefits (i.e., percentage reduction in VMT).

Based on the CAPCOA guidance, the following three measures would have a quantifiable impact on VMT; the corresponding five CAPCOA VMT reduction categories are shown in bullets below each measure:

- **Measure T1: Increase Density Near High-Quality Transit Areas (HQTAs)**
 - Increase residential density in HQTAs
 - Incentivizing and promoting development within HQTAs
- **Measure T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips**
 - Pedestrian and bikeway network improvements
- **Measure T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation**
 - County shuttles
 - Bus-only lanes, and transit signal prioritization

Descriptions of the Draft 2045 CAP measures listed above are provided in Section 2.6.3, *Local Measures and Implementing Actions*. In determining the level of significance, the analysis

assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.15.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures and various implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed GHG reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics because the location and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of the implementation of specific measures and actions were considered as part of this analysis to the degree specific information about implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP*.)

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of transportation-related impacts. These and other relevant measures and actions include Measure T1, Increase Density Near High-Quality Transit Areas; Measure T2, Develop Land Use Plans Addressing Jobs-Housing Balance & Increase Mixed Use; Measure T3, Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips; Measure T4, Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation; and Measure T5, Limit and Remove Parking Minimums as among the measures most relevant to the analysis of transportation impacts. Projects facilitated by Draft 2045 CAP measures and actions could cause impacts to transportation. Specific transportation impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would conflict with an applicable program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Impact 3.15-1: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would conflict with an applicable program plan, ordinance, or policy addressing the circulation system. (*Less than Significant with Mitigation Incorporated*)

An impact would be significant pursuant to criterion a) if the Project would conflict any of the transportation-related goals or policies identified in regional and local plans. For example, the

General Plan includes a map of freeway and highway disaster routes, many of which cross through portions of the unincorporated County (County Planning 2015). The Draft 2045 CAP is a policy-level document that does not include any site-specific project designs or proposals that would have the potential to conflict with applicable plans, ordinances, or policies addressing the circulation system.

Any future projects that would be facilitated by Draft 2045 CAP measures and actions could conflict with applicable plans, ordinances, or policies related to the circulation system. The Draft 2045 CAP promotes mixed-use and transit-oriented development in city centers and near transit hubs consistent with existing land use plans. Overall, the Draft 2045 CAP Measures T1 through T5 (see descriptions above) would reduce Countywide VMT by facilitating projects that reduce VMT (and promote transit and active transportation, which is consistent with the transportation-related goals and policies of the SCAG RTP/SCS, Metro’s Short- and Long-Range Transportation Plans, Step by Step Los Angeles County, Los Angeles County Bicycle Master Plan, and Los Angeles County General Plan described above in Section 3.15.1.3, *Regulatory Setting*. Future utility-scale energy projects (solar, battery storage, substation, transmission) that could be facilitated by the Draft 2045 CAP measures and actions do not tend to generate high levels of VMT on a long-term basis because project-related trips are generated primarily during construction with very few workers on-site during project operation.³ Therefore, Project operations would result in a less-than-significant impact with respect to consistency with applicable program plans, ordinances or policies addressing the circulation system.

Draft 2045 CAP measures would promote the construction of minor changes to the existing streetscape, such as additional transit, pedestrian, and bicycle facilities to promote increased transit accessibility. Although specific details are unknown, construction of these facilities may temporarily disrupt traffic flows on area roadways by increasing the amount of heavy-duty construction vehicles sharing the roadways with normal vehicle traffic, disrupt alternative modes of transportation by blocking bicycle or pedestrian pathways or public transit lanes on area roadways, or result in lane closures that could delay the movement of emergency vehicles. Construction that involves changes to the existing streetscape could result in the temporary closure of pedestrian and/or bicycle facilities. Depending on the intensity and duration of such activities, construction of facilities facilitated by the Draft 2045 CAP could conflict with applicable plans, ordinances, or policies related to safety and mobility for motorists, transit operators, bicyclists, and pedestrians, during the construction period. Furthermore, depending on their nature, projects that would be facilitated by the Draft 2045 CAP measures and actions also may require construction on major roadways or the closure of major roadways to facilitate construction activities. Should construction activities within major roadways or road closures be required to facilitate projects implementing Draft 2045 CAP measures and actions, such activities could obstruct major roadways and could hinder evacuation procedures. Therefore, projects facilitated by the Draft 2045 CAP measures and goals could result in a significant impact with respect to consistency with applicable program plans, ordinances, or policies addressing the

³ See, for example, the Final EIR for the AV Solar Ranch One Project, which was projected to have 996 daily one-way trips at peak construction as compared to “very low trip generation associated with the Project’s operations workforce of 16 and occasional service/delivery trips” following construction (County Planning 2010).

circulation system, including an emergency response or evacuation plan; thus, impacts associated with criterion a) would be significant.

Mitigation Measure 3.15-1, Traffic Control Plan: LA County shall require project applicants and construction contractors to coordinate with relevant LA County departments, transit providers, and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on transit service, roadway operations, emergency responders, pedestrian and bicycle facilities, and public safety in the surrounding area. (A traffic control plan may not be required for minor construction activities.) The project applicant shall be responsible for monitoring to ensure that the plan is effectively implemented by the construction contractor(s). Measures that may be employed throughout the course of the construction period include, but are not limited, to the following.

- Provide advance notice of lane and sidewalk closures, durations, and alternative routes to emergency service providers, motorists, bicyclists, and pedestrians.
- Provide clearly marked pedestrian detours if any sidewalk or pedestrian walkway closures are necessary.
- Provide clearly marked bicycle detours if heavily used bicycle routes must be closed, or if bicyclist safety may otherwise be comprised.
- Provide crossing-guards and/or flag persons as needed to avoid traffic conflicts and ensure pedestrian and bicyclist safety.
- Locate all stationary equipment as far as possible from areas used heavily by vehicles, bicyclists, and pedestrians.
- Use nonskid traffic plates over open trenches to reduce hazards.
- Implement traffic control measures to reduce vehicle travel delays through construction zones.
- Maintain acceptable response times and performance objectives for emergency response services.
- Avoid routing construction traffic through residential areas to the extent feasible.
- Prohibit mobilization and demobilization of heavy construction equipment during AM and PM peak traffic hours.
- Maintain access for driveways and private roads outside the immediate construction zone by using steel plates or temporary backfill, as necessary.
- Provide designated areas for construction worker parking wherever feasible to reduce use of parking on streets or in city center areas.

Significance after Mitigation: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in less-than-significant impacts because the Traffic Control Plan would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the Draft 2045 CAP measures and actions.

Criterion b) Whether the Project would conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).

Impact 3.15-2: Projects facilitated by the Draft 2045 CAP would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b). (*Less-than-Significant Impact*)

Significance criteria in LA County's *Transportation Impact Analysis Guidelines*, which are normally used to determine the significance of project-level transportation impacts in the unincorporated areas of the County, are focused on a project's potential to increase VMT above thresholds that are tied to regional averages. More specifically, individual projects that would result in VMT per capita or VMT per employee less than 16.8 percent below the existing or baseline regional average would result in a significant impact.

The VMT per capita and per employee thresholds noted above apply only to projects that would add people (i.e., employees, residents, visitors) that would generate "new" VMT by driving to or from a project site, as compared to baseline conditions. This "new" VMT would be subject to LA County's 16.8 percent below the existing or baseline regional average VMT threshold. However, this threshold is not applicable to Draft 2045 CAP because the Draft 2045 CAP would not add new land uses or people that would generate new VMT; the Draft 2045 CAP accounts for transportation-related goals, policies, and programs already contained in the other planning documents described in Section 3.15.1.3, *Regulatory Setting*, and quantifies VMT reductions associated with the implementation of such goals, policies, and programs, including the Housing Element Update.

Furthermore, the analysis of potential VMT reductions conducted for the Project (Draft EIR, Appendix F) found that projects facilitated by the Draft 2045 CAP measures and actions would reduce overall Countywide VMT by approximately 4 percent, effectively reducing the regional average per capita VMT levels from which LA County's VMT threshold was derived. Because the 16.8 percent reduction is what CARB has determined is needed to achieve the state's long-term climate goals, and the Draft 2045 CAP would reduce VMT in a way that would contribute to this reduction, the Draft 2045 CAP would further the state's goals to achieve reductions in GHG emissions as they relate to VMT. Finally, CEQA Guidelines Section 15064.5 provides that land use or transportation projects that decrease VMT should be presumed to cause a less-than-significant impact; although the Draft 2045 CAP is neither a land use or transportation project, it does reduce Countywide VMT by approximately 4 percent, and the same rationale for the presumption would apply. Also, OPR's Technical Advisory states that:

Transit and active transportation projects generally reduce VMT and therefore are presumed to cause a less-than-significant impact on transportation. This presumption may apply to all passenger rail projects, bus and bus rapid transit projects, and bicycle and pedestrian infrastructure projects. Streamlining transit and active transportation projects aligns with each of the three statutory goals contained in SB 743 by reducing GHG emissions, increasing multimodal transportation networks, and facilitating mixed use development.

Since many projects facilitated by the Draft 2045 CAP measures and actions that affect VMT essentially fall under OPR’s category of “transit and active transportation projects” or facilitate such projects, and this category of projects have been shown to reduce VMT, then it can be assumed that such projects would result in a less-than-significant transportation impact.

In summary, the Draft 2045 CAP would not be subject to LA County’s VMT threshold because it would not introduce new land uses or people to the County that would generate new VMT; rather, the Draft 2045 CAP would support implementation of transportation-related goals, policies, and programs that are already contained in other planning documents. The implementation of such goals, policies, and programs were found to reduce Countywide VMT by approximately 4 percent as compared to baseline Countywide VMT, furthering the State’s goals to achieve reductions in GHG emissions as they relate to VMT generated by transportation. Further, the Draft 2045 CAP’s 4 percent VMT reduction falls within the CEQA Guidelines presumption of a less-than-significant transportation impact, and many projects facilitated by the Draft 2045 CAP measures and actions that affect VMT essentially fall under OPR’s category of “transit and active transportation projects,” or facilitate such projects. Therefore, a less-than-significant impact would occur with respect to CEQA Guidelines Section 15064.3(b).

Mitigation: None required.

Criterion c) Whether the Project would substantially increase hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact 3.15-3: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would substantially increase hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). (Less than Significant with Mitigation Incorporated)

An impact would be significant pursuant to criterion c) if a project would introduce any design features or activities that could result in hazardous conditions to motorists, transit operators, bicyclists, or pedestrians. As described in Impact 3.15-1, construction projects facilitated by the Draft 2045 CAP may temporarily disrupt traffic flows on area roadways by increasing the amount of heavy-duty construction vehicles sharing the roadways with normal vehicle traffic, disrupt alternative modes of transportation by blocking bicycle or pedestrian pathways or public transit lanes on area roadways, or result in lane closures that could delay the movement of emergency vehicles. During the construction period, the presence of construction or the increased amount of heavy-duty construction vehicles on roadways could substantially increase hazards due to incompatible uses with normal vehicles on roadways. This could result in a significant impact.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in less-than-significant impacts because the Traffic Control Plan would avoid or substantially reduce any hazardous conditions for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated projects facilitated by the Draft 2045 CAP measures and actions.

3.15.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts to transportation, the geographic area of consideration (i.e., the cumulative impacts study area) is Countywide, inclusive of both incorporated and unincorporated areas of Los Angeles County. Cumulative impacts could result at various locations within this area from initiation of individual transportation-related projects facilitated by the Draft 2045 CAP measures and actions until completion of such implementing projects.

Criterion a)

Impact 3.15-4: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to a significant cumulative impact relating to conflict with an applicable program plan, ordinance or policy addressing the circulation system. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

Applicable programs, plans, ordinances and policies addressing the circulation system are summarized in Section 3.15.1, *Setting*. Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements, have affected and can be expected to continue to affect the circulation system that, together with the Project's impacts, could create a significant cumulative impact relating to criterion a).

The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute a cumulatively considerable incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measure 3.15-1.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: Less than Significant. With the implementation of the Traffic Control Plan required by this measure, the Project-specific, incremental contribution, taken into consideration with the cumulative projects' impacts to transportation resources over the span of the Draft 2045 CAP, would not be cumulatively considerable because the mitigation measure would avoid or substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the Draft 2045 CAP measures and actions.

Criterion b)

Impact 3.15-5: The Project would not cause a cumulatively considerable contribution to a significant cumulative impact relating to conflict or inconsistency with CEQA Guidelines Section 15064.3(b). (*Less-than-Significant Cumulative Impact*)

Per LA County's *Transportation Impact Analysis Guidelines* (LA County DPW 2020), long-term or cumulative VMT impacts are determined through consistency with the SCAG RTP/SCS (SCAG 2020). The RTP/SCS demonstrates compliance with air quality conformity requirements

and GHG reduction targets. Projects that are consistent with the RTP/SCS in terms of development location, density, and intensity are consistent with air pollution and GHG goals and would have a less-than-significant cumulative impact.

Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with the SCAG RTP/SCS (SCAG 2020), General Plan, and municipal code requirements have affected and can be expected to continue to affect the VMT so as to create a potentially significant cumulative VMT impact when added to the Project's impacts.

However, as discussed above in Section 3.15.2.3, *Project Impacts*, the Draft 2045 CAP would not introduce new land uses or people to the County that would generate new VMT. Furthermore, as documented in the VMT-reduction analysis (Draft EIR, Appendix F), projects facilitated by the Draft 2045 CAP measures and actions would actually reduce the overall Countywide VMT by approximately 4 percent compared to baseline conditions. Therefore, the Project's contribution to the potentially significant cumulative VMT impact would be less-than-cumulatively considerable.

Criterion c)

Impact 3.15-6: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to a significant cumulative impact relating to a substantial increase in hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The existing road network is described in Section 3.15.1.2, *Environmental Setting*. The number of traffic-related deaths and severe injuries that occur on unincorporated area roadways indicates that a significant cumulative impact exists regarding roadway hazards: "Traffic collisions are a major cause of death and severe injury throughout unincorporated Los Angeles County. From 2013-2017, on average one person lost their life every 5 days as a result of a traffic collision on unincorporated County roadways" (SCAG 2019). Traffic hazards are on the rise, with fatalities on unincorporated area roads having increased by nearly 28 percent between 2013 and 2017, resulting in 383 deaths and 1,648 other severe injuries during this time period (Id.). Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with the SCAG RTP/SCS (SCAG 2020), General Plan, Vision Zero (SCAG 2019) and municipal code requirements have introduced or could introduce new roadways, roadway improvements, or incompatible uses that could result in substantially increased hazards.

The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measure 3.15-1.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: Less than Significant. With the implementation of the Traffic Control Plan required by this measure, the Project-specific, incremental contribution, taken into consideration with the cumulative projects' impacts to

transportation over the span of the Draft 2045 CAP, would not be cumulatively considerable because the mitigation measure would avoid or substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by Draft 2045 CAP measures and actions.

3.16 Tribal Cultural Resources

This section identifies and evaluates whether the Draft 2045 CAP would result in a significant impact on tribal cultural resources. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various substantive issues and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to tribal cultural resources relate to consultation pursuant to Assembly Bill (AB) 52 and Senate Bill (SB) 18, recommend the inclusion in the EIR of feasible mitigation measures identified during consultation, and otherwise do not express concerns unless the implementation of the Draft 2045 CAP would facilitate future development of carbon reduction projects within tribal territory.

3.16.1 Setting

3.16.1.1 Study Area

The study area for this analysis of impacts on tribal cultural resources consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

3.16.1.2 Environmental Setting

Tribal Cultural Resources Definition

Tribal cultural resources, as defined in Public Resources Code Section 21074, include “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (California Register) or included in the Los Angeles County Historical Landmarks Registry, or resources determined by the lead agency, in its discretion and supported by substantial evidence, to be significant. A cultural landscape that meets these criteria is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. Historical resources, unique archaeological resources, or non-unique archaeological resources also may be tribal cultural resources if they meet these criteria.

Ethnographic Setting

The ethnographic setting for this analysis of impacts on tribal cultural resources is described in Section 3.6.1.2, *Environmental Setting*, in Section 3.6, *Cultural Resources*.

Native American Consultation

In letters dated November 13, 2019, LA County submitted notification and requests to consult pursuant to AB 52 to five representatives of Native American tribes. AB 52 letters were sent via mail to the following California Native American tribes and individuals:

- Andrew Salas, Gabrieleño Band of Mission Indians–Kizh Nation
- Anthony Morales, Gabrieleno Tongva San Gabriel Band of Mission Indians
- Jairo Avila, Fernandeno Tataviam Band of Mission Indians
- Lee Clauss, San Manuel Band of Mission Indians
- Octavio Escobedo, Tejon Indian Tribe

No responses were received from any of these individuals pursuant to AB 52. Therefore, AB 52 tribal consultation is concluded pursuant to Public Resources Code Section 21080.3.2(b).

Copies of all AB 52 outreach communications are included in **Appendix G**, *Tribal Cultural Resources*.

In letters dated November 13, 2019, LA County also sent notification and requests to consult pursuant to Senate Bill (SB) 18 to 25 individuals and tribes. SB 18 letters were sent via mail to the following California Native American tribes and individuals:

- Andrew Salas, Gabrieleño Band of Mission Indians–Kizh Nation
- Anthony Morales, Gabrieleno Tongva San Gabriel Band of Mission Indians
- Charles Alvarez, Gabrielino–Tongva Tribe
- Donna Yocum, San Fernando Band of Mission Indians
- Fred Collins, Northern Chumash Tribal Council
- Gino Altamirano, Coastal Band of the Chumash Nation
- Jairo Avila, Fernandeno Tataviam Band of Mission Indians
- Julie Tumamait-Stenslie, Barbareno/Ventureno Band of Mission Indians
- Julio Quair, Chumash Council of Bakersfield
- Kenneth Kahn, Santa Ynez Band of Chumash Indians
- Lee Clauss, San Manuel Band of Mission Indians
- Gino Altamirano, Coastal Band of the Chumash Nation
- Mark Cochrane, Serrano Nation of Mission Indians
- Mark Vigil, San Luis Obispo County Chumash Council
- Matias Belardes, Juaneno Band of Mission Indians Acjachemen Nation
- Mona Tucker, yak tityu tityu yak tithini–Northern Chumash Tribe
- Robert Dorame, Gabrielino Tongva Indians of California Tribal Council
- Robert L. Gomez, Tubatulabals of Kern Valley

- Robert Martin, Morongo Band of Mission Indians
- Robert Robinson, Kern Valley Indian Community
- Rudy Ortega, Fernandeano Tataviam Band of Mission Indians
- Sandonne Goad, Gabrielino/Tongva Nation
- Sonia Johnston, Juaneno Band of Mission Indians
- Teresa Romero, Juaneno Band of Mission Indians Acjachemen Nation–Romero
- Wayne Walker, Serrano Nation of Mission Indians

Five responses were received from the individuals/organizations pursuant to SB 18. The Juaneño Band of Mission Indians Acjachemen Nation–Belardes, Morongo Band of Mission Indians, and San Manuel Band of Mission Indians indicated that they had no concerns regarding the Project and did not request consultation. The Santa Ynez Band of Chumash Indians also did not request consultation; however, they indicated that should supplementary literature reveal additional information, or if the scope of work were to change, they would like to be notified.

The Coastal Band of Chumash Indians requested consultation. In response, LA County sent emails on November 21, 2019, and January 8, 2020, to schedule a consultation meeting with the Coastal Band of Chumash Indians, but no response was received. LA County also sent a letter via regular mail and email on March 11, 2020, to once again schedule a consultation call with the Coastal Band of the Chumash Nation; however, no response was received.

Copies of all SB 18 outreach communications are included in Appendix G, *Tribal Cultural Resources*.

3.16.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Federal laws relevant to tribal consultation and tribal cultural resources include Section 106 of the National Historic Preservation Act, the Native American Graves Protection and Repatriation Act, the American Indian Religious Freedom Act of 1978, Executive Order (EO) 13007, and EO 13175. Relevant provisions of National Historic Preservation Act Section 106 and the Native American Graves Protection and Repatriation Act are summarized in Section 3.6.1.3, *Regulatory Setting*, in Section 3.6, *Cultural Resources*. The American Indian Religious Freedom Act of 1978, EO 13007, and EO 13175 are summarized below.

American Indian Religious Freedom Act of 1978

The American Indian Religious Freedom Act of 1978 (United States Code Title 42, Section 1996) makes it the policy of the United States to “protect and preserve for the American Indians their inherent right to freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians.” These rights include but are not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremony and traditional rites.

Executive Order 13007

EO 13007, Indian Sacred Sites, was issued by President Bill Clinton on May 24, 1996. The order requires federal land management agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. It also requires federal agencies to develop procedures for reasonable notification of proposed actions or land management policies that may restrict access to or ceremonial use of, or adversely affect, sacred sites.

Under the order, *sacred site* is defined as “any specific, discrete, narrowly delineated location on federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site” (*Federal Register* Vol. 61, No. 104, page 26771, May 29, 1996).

Executive Order 13175

EO 13175, Consultation and Coordination with Indian Tribal Governments, was issued by President Clinton on November 6, 2000. The order directs federal agencies to establish regular and meaningful consultation and collaboration with tribal officials in the development of rules, policies, and guidance that have tribal implications, to strengthen the United States’ government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes.

Several executive memoranda have been issued reinforcing this order:

- In 2004, President George W. Bush issued a memorandum titled “Government-to-Government Relationship with Tribal Governments” that reaffirmed the existence and durability of the unique government-to-government relationship and commitment to working with federally recognized tribal governments on a government-to-government basis. The 2004 memorandum called upon all departments and agencies to adhere to these principles and work with tribal governments in a manner that cultivates mutual respect and fosters greater understanding to reinforce these principles.
- In 2009, President Barack Obama issued a memorandum titled “Memorandum on Tribal Consultation” in an effort to improve regular and meaningful consultation and collaboration with tribal officials. The memorandum directed agencies to submit detailed plans of action for implementing the policies and directives of EO 13175, and to provide annual reports regarding implementation of the plans along with recommendations for improving the plans and tribal consultation process.
- In 2021, President Joe Biden issued a memorandum titled “Tribal Consultation and Strengthening Nation-to-Nation Relationships,” reaffirming the policies announced in President Obama’s 2009 memorandum.

State Laws, Regulations, and Policies

Assembly Bill 52

AB 52 was approved by Governor Edmund G. Brown Jr. on September 25, 2014. The primary intent of AB 52 is to involve California Native American tribes early in the environmental review process and to obtain the information needed to locate and avoid tribal cultural resources.

Public Resources Code Section 21080.3.1(b) states that within 14 days of a decision by a lead agency to undertake a project, the lead agency must provide formal notification to the designated contact, or a tribal representative, of each California Native American tribe traditionally and culturally affiliated with the project's geographic area that has requested in writing to be informed by the lead agency. Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency's formal notification, and the lead agency must begin consultation within 30 days of receiving the tribe's request for consultation (Public Resources Code Sections 21080.3.1[d] and 21080.3.1[e]).

Public Resources Code Section 21080.3.2(a) identifies the following potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; and the significance of the project's impacts on the tribal cultural resources. If the California Native American tribe requests consultation regarding alternatives to the project, recommended mitigation measures, or significant impacts, the consultation shall include those topics. Consultation is considered concluded when either of the following scenarios occurs: (1) The parties agree to measures to mitigate or avoid a significant impact, if a significant impact exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (Public Resources Code Section 21080.3.2[b]).

If a California Native American tribe has requested consultation and has failed to provide comments to the lead agency, or has otherwise failed to engage in the consultation process, or if the lead agency has provided notification but the California Native American tribe has failed to request consultation within 30 days, then the lead agency may proceed to certify an EIR or adopt a mitigated negative declaration (Public Resources Code Sections 21082.3[d][2] and 21082.3[d][3]).

Senate Bill 18

SB 18 (Statutes of 2004, Chapter 905) requires local governments (such as LA County) to consult with Native American tribes before making certain planning decisions, and to provide notice to tribes at certain key points in the planning process. The intent is to "provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places" (OPR 2005).

The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use designations are made by a local government. The consultation requirements of SB 18 apply to general plan or specific plan processes proposed on or after March 1, 2005. See

Section 3.16.1.2, *Environmental Setting*, under “Native American Consultation,” for details of LA County’s submittal of requests for consultation pursuant to SB 18.

According to the *Tribal Consultation Guidelines: Supplement to General Plan Guidelines*, local governments must fulfill the following contact and notification responsibilities (OPR 2005):

- Before adopting or amending a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the Native American Heritage Commission) of the opportunity to conduct consultations to preserve, or mitigate impacts on, cultural places located on land within the local government’s jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless they have agreed to a shorter time frame (Government Code Section 65352.3).
- Before adopting or substantially amending a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the Native American Heritage Commission contact list and have traditional lands located within the city’s or county’s jurisdiction. The referral must allow a 45-day comment period (Government Code Section 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.
- Local governments must send a notice of a public hearing, at least 10 days before the hearing, to any tribe that has filed a written request for such notice (Government Code Section 65092).

Government Code Sections 6254(r) and 6254.10

Provisions of the Government Code protect the confidentiality of archaeological sites to prevent unauthorized excavation, looting, or vandalism. The Government Code provides for the confidentiality of information related to “Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission” (Government Code Section 6254[r]). It specifically exempts from disclosure requests for “records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency” (Government Code Section 6254.10).

Local Laws, Regulations, and Policies

Los Angeles County Historic Preservation Ordinance

The LA County Historic Preservation Ordinance is summarized in Section 3.6.1.3, *Regulatory Setting*, in Section 3.6, *Cultural Resources*. The Historic Preservation Ordinance specifically mentions tribal cultural resources; however, sites, features, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed on the LA County Historical Landmarks Registry also would meet the definition of “tribal cultural resources” provided in Public Resources Code Section 21074(a)(1)(B).

3.16.2 Impact Analysis

3.16.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Draft 2045 CAP would result in a significant impact on tribal cultural resources if it would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- (a) Listed or eligible for listing in the California Register, or in the LA County Historical Landmarks Registry as defined in Public Resources Code Section 5020.1(k); or
- (b) A resource determined by LA County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). In applying the criteria set forth in Public Resources Code Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

3.16.2.2 Methodology

Adoption of the Draft 2045 CAP's greenhouse gas (GHG) emissions reduction measures and actions would not cause adverse impacts on tribal cultural resources; however, projects facilitated by Draft 2045 CAP measures and actions could result in such impacts. Impacts on tribal cultural resources resulting from projects facilitated by Draft 2045 CAP measures and actions are evaluated at a programmatic level.

The following analysis is informed by the results of LA County's AB 52 and SB 18 consultations with representatives of local Native American organizations. None of the five tribes notified pursuant to AB 52 responded, so the County considers AB 52 consultation as concluded. Five of the 24 tribes notified pursuant to SB 18 responded. Of these five tribes, three did not wish to consult; one requested follow-up notification should supplementary literature reveal additional information, or if the scope of work were to change; and the other requested consultation but did not respond to LA County's attempts to schedule a consultation meeting. No tribal cultural resources were identified as a result of these consultations.

In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local laws, ordinances, and regulations.

3.16.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce GHG emissions in unincorporated areas of Los Angeles County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists

the proposed GHG reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics, because the locations and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, the impacts of implementing specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities, are evaluated qualitatively at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP.*)

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than the project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of tribal cultural resources–related impacts. These and other relevant measures and actions include the renewable energy and related infrastructure projects that would be facilitated by Draft 2045 CAP measures and actions toward the following categories of strategies: (1) Decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (2) The electrification of vehicles (e.g., Measure T6, Increase Zero-Emission Vehicle Market Share; Measure T7, Electrify LA County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (3) The electrification of buildings (Strategy 5, Decarbonize Buildings). Renewable energy and related infrastructure projects facilitated by Draft 2045 CAP measures and actions could result in the development of more rural or open lands in areas of the unincorporated County where comparatively minimal ground disturbance has occurred. This would result in changes affecting tribal cultural resources, as defined in Public Resources Code Section 21074. Specific tribal cultural resources-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or

Criterion b) Whether the Project would cause a substantial adverse change in the significance of a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). In applying the criteria set forth in Public Resources Code Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

Impact 3.16-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a tribal cultural resource, or of a resource determined by LA County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). (*Less than Significant with Mitigation Incorporated*)

No tribal cultural resources listed or eligible for listing in the California Register or LA County Historical Landmarks Registry were identified within the study area as a result of consultations. LA County has not made any discretionary tribal cultural resource determinations at the project level. Future projects facilitated by Draft 2045 CAP measures and actions would involve structural improvements and/or ground-disturbing activities that, depending on their locations, could result in direct or indirect substantial adverse changes to the significance of a tribal cultural resource. For example, such changes could result from the following:

- Increased residential density/increased mixed use (Measures T1 and T2).
- Bicycle and pedestrian infrastructure (Measures T3 and T4).
- Construction of electric vehicle charging infrastructure (Measure T6).
- Construction of renewable energy projects and infrastructure (e.g., utility-scale solar energy generation projects and battery storage, substation, and transmission infrastructure) in the Antelope Valley to support procurement of zero-carbon electricity (Measure ES2).
- Construction of new solar power generation on new and existing development (Measure ES3).
- Expansion of energy storage and microgrids (Measure ES4).
- Tree planting at new development, LA County facilities, and public parks, and along rights-of-way in both urbanized and rural areas (Measure A3).
- New organics waste collection and processing facilities, including anaerobic digestion (Measure W3).

Future projects facilitated by the Draft 2045 CAP measures and actions would be required to comply with applicable federal, state, and local regulations and, as appropriate, to undergo LA County's discretionary review process, including completion of subsequent project-level planning and environmental review under CEQA. These projects would similarly require compliance with AB 52 to ensure that tribal cultural resources are properly identified. Nonetheless, such projects could result in significant impacts on sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe qualifying as tribal cultural resources. Thus, this impact on tribal cultural resources would be significant.

However, implementation of Mitigation Measure 3.16-1 would reduce impacts to a less-than-significant level. For archaeological resources that could also meet the definition of tribal cultural resources, Mitigation Measures 3.6-2 through 3.6-6 (found in Section 3.6, *Cultural Resources*) would be implemented to further reduce impacts.

Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6.

Mitigation Measure 3.16-1: AB 52 Consultation. Consistent with AB 52, before the release of a negative declaration, mitigated negative declaration, or EIR, LA County shall initiate consultation within 14 days of a decision to undertake a project facilitated by Draft 2045 CAP measures or actions. LA County shall provide formal notification to the designated contact of, or a tribal representative of, each traditionally and culturally affiliated California Native American tribe that has requested notice. LA County shall begin the consultation process within 30 days after receiving a California Native American tribe's request for consultation. The purpose of the consultation shall be to identify sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that meet the definition of tribal cultural resources provided in CEQA Section 21074(a)(1) or Section 21074(a)(2). In addition, the California Native American tribe may request consultation regarding the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and, if necessary, project alternatives or the appropriate measures for preservation or mitigation.

If tribal cultural resources are identified, LA County shall implement mitigation measures that would avoid or substantially lessen significant impacts on such resources, including but not limited to the measures recommended in Public Resources Code Section 21084.3, or shall implement alternatives that would avoid significant impacts on the tribal cultural resources. Such measures shall be implemented in consultation with the California Native American tribe.

Significance after Mitigation: Implementation of Mitigation Measure 3.16-1 would reduce impacts of the Draft 2045 CAP on tribal cultural resources to a less-than-significant level. This measure is required to reduce significant impacts on tribal cultural resources resulting from projects facilitated by the Draft 2045 CAP measures and actions by avoiding or minimizing impacts. Mitigation Measure 3.16-1 requires LA County to consult with California Native American tribes pursuant to AB 52 to identify tribal cultural resources that could be affected by a project facilitated by the Draft 2045 CAP. Further, if a tribal cultural resource is identified as a result of consultation, LA County must implement mitigation measures or consider alternatives capable of avoiding or minimizing significant impacts on the tribal cultural resource. Additionally, Mitigation Measures 3.6-2 through 3.6-6 (identified in Section 3.6, *Cultural Resources*) require archaeological monitoring and preparation of a plan for the treatment of archaeological resources, including those that may also qualify as tribal cultural resources, which would further reduce the impact.

3.16.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts on tribal cultural resources, the geographic area of consideration (i.e., the study area for cumulative impacts) consists of Los Angeles County, inclusive of both the incorporated cities and the unincorporated areas. This Countywide geographic scope of analysis is appropriate for the analysis of tribal cultural resources because the types of resources within this area are similar in nature and origin, and share a common heritage. Cumulative impacts could result at various locations within this area from the initiation of projects facilitated by Draft 2045 CAP measures and actions, and such impacts could be perpetual.

Impact 3.16-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a cumulatively considerable contribution to a significant cumulative impact caused by an adverse change in the significance of a tribal cultural resource or of a resource determined by LA County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). (*Less than Significant with Mitigation Incorporated*)

No tribal cultural resources listed or eligible for listing in the California Register or LA County Historical Landmarks Registry were identified during consultation. However, given Los Angeles County’s long history, past, present, and reasonably foreseeable future projects—including projects implemented in accordance with the *Los Angeles County General Plan 2035* and municipal code requirements—could combine with projects facilitated by Draft 2045 CAP measures and actions to affect the significance of tribal cultural resources Countywide. For example, project-related ground disturbance could occur at the locations of unanticipated discoveries of tribal cultural resources, affecting their significance. Cumulative impacts on tribal cultural resources could be significant t.

The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a cumulatively considerable incremental contribution to this significant cumulative impact; however, the contribution would be mitigated to a level that would be less than cumulatively considerable (i.e., less-than-significant cumulative impact) with the implementation of Mitigation Measure 3.16-1 (identified above) and Mitigation Measures 3.6-2 through 3.6-6 (identified in Section 3.6, *Cultural Resources*).

Mitigation Measures: Implement Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6.

Significance After Mitigation: Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6 would require LA County to initiate consultation (within 14 days of a decision to undertake a project facilitated by Draft 2045 CAP measures or actions) with California Native American tribes to avoid or lessen impacts on tribal cultural resources, and would require archaeological monitoring and preparation of a plan for the treatment of such resources. As a result, with implementation of these measures, the Project-specific, incremental contribution, considered with the cumulative projects’ impacts on tribal cultural resources over the span of the Draft 2045 CAP, would not be cumulatively considerable, and therefore would be less than significant.

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3.17 Utilities and Service Systems

This section identifies and evaluates issues related to utilities and service systems to determine whether the Project would result in a significant impact related to water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities; water supplies; wastewater treatment; or solid waste. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to utilities and service systems suggest that future renewable energy projects facilitated by Draft 2045 CAP measures and actions would cause impacts on utilities including the potential for increased solid waste generation that could exceed existing solid waste disposal capacity.

3.17.1 Setting

3.17.1.1 Study Area

The study area for this analysis of impacts on utilities and service systems consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

3.17.1.2 Environmental Setting

Wastewater Treatment Providers

Multiple wastewater treatment providers serve the unincorporated areas of the County. The Los Angeles County Sanitation Districts provide wastewater treatment to many unincorporated areas, as well as to 78 cities in Los Angeles County. The City of Los Angeles Bureau of Sanitation provides wastewater treatment to several unincorporated areas in and adjacent to the city of Los Angeles, including unincorporated areas west of the city of Los Angeles in the Santa Susana Mountains, Simi Hills, and Santa Monica Mountains; Marina del Rey; and La Crescenta–Montrose. The Las Virgenes Municipal Water District operates the Tapia Water Reclamation Facility in the unincorporated areas within the Santa Monica Mountains Planning Area. Finally, the Los Angeles County Department of Public Works operates three wastewater treatment plants in the city of Malibu that also serve nearby unincorporated areas (County Planning 2021).

Wastewater Treatment Facilities

The Los Angeles County Department of Public Works Consolidated Sewer Maintenance District operates and maintains four treatment plants and 153 pump stations throughout the County. Wastewater treatment plants treat wastewater by removing solid waste and other contaminants

until it has reached a level that meets state and federal water quality standards. Once wastewater has been treated, it is either reused or distributed back into local water bodies such as the Los Angeles River, Santa Monica Bay, or Los Angeles Harbor. The four treatment plants operated by the Consolidated Sewer Maintenance District are Malibu Mesa Wastewater Reclamation Plant, Malibu Water Pollution Control Plant, Trancas Water Pollution Control Plant, and Lake Hughes Community Wastewater Treatment Facility (Los Angeles County Department of Public Works 2022a).

Storm Water Management

Los Angeles County's stormwater infrastructure includes 2,919 miles of underground storm drains, 80,000 catch basins, 162 debris dams, 487 miles of open channels, and 14 major dams and reservoirs, making the districts' flood protection and water conservation system one of the largest in the world. The Los Angeles County Basin is jointly managed by the Los Angeles County Flood Control District and the U.S. Army Corps of Engineers, serving Los Angeles County's 88 cities. LA County's stormwater pollution prevention efforts are designed to protect and improve the quality of recreational waters and potable water resources, along with beneficial uses of other water resources, to comply with federal, state, and local directives, while fostering a safe and efficient drainage system (Los Angeles County Department of Public Works 2022b).

Electricity and Natural Gas Service

Electricity and natural gas service providers are described in Section 3.7, *Energy*.

Telecommunications

Telecommunications infrastructure includes small cell facilities and macro towers. Small cell facilities are located on existing or proposed vertical infrastructure, such as streetlights, utility poles, and traffic signal poles in the public right-of-way. *Macro towers* are large independent structures with the single purpose of supporting telecommunications. These tend to be large mono-towers that are either in the public right-of-way or are on private or public property. Numerous telecommunications providers operate within Los Angeles County and either share infrastructure or own their own facilities to provide cellular service Countywide.

Water

Water supplies in the County are accessed from both local and imported sources. Local supplies include groundwater, surface water, and recycled water. Recycled water is produced at numerous wastewater treatment plants Countywide, including by the City of Los Angeles, the County Sanitation Districts, and multiple municipalities. Recycled water is used for nonpotable irrigation purposes as well as increasingly for potable reuse. Stormwater capture is increasing in Los Angeles County in response to water quality regulations and will continue to increase in the future as more stormwater capture projects are constructed. Groundwater resources are extensive and provide an essential storage resource for local runoff as well as imported water replenishment. These local supplies can supply as much as 50 percent of the County's water demand in some years (Metropolitan Water District of Southern California 2016).

Imported water supplies are conveyed to Los Angeles County in three essential aqueduct systems: the City of Los Angeles Department of Water and Power's Los Angeles Aqueduct, Metropolitan Water District of Southern California's (MWD's) Colorado River Aqueduct, and the California Department of Water Resources' (DWR's) California Aqueduct. The Los Angeles Aqueduct conveys water from the eastern Sierra Nevada. The California Aqueduct provides supplies from Northern California via the Feather River in the northern Sierra Nevada, down into the Sacramento River and then across the Sacramento–San Joaquin Delta. The Colorado River Aqueduct originates at Lake Havasu on the Colorado River through the Colorado River Aqueduct to its terminal reservoir at Lake Mathews in Riverside County. MWD, Little Rock Creek Irrigation District, Palmdale Water District, Santa Clarita Valley Water District, and the Antelope Valley East Kern Water District are each State Water Contractors with access to water conveyed from Northern California in the California Aqueduct. These water wholesale agencies supply water to local retail agencies including LA County, municipalities, and water special districts.

Six Los Angeles County waterworks districts provide retail water supplies in unincorporated areas of the County (Los Angeles County Department of Public Works 2022c):

- District 21, Kagel Canyon, currently serves approximately 550 people through 250 metered connections.
- District 29, Malibu and Topanga, currently serves approximately 22,300 people through 7,500 metered connections.
- The Marina del Rey Water System currently serves approximately 8,800 people through 300 metered connections.
- District 36, Val Verde, currently serves approximately 5,200 people through 1,350 metered connections.
- District 37, Acton, currently serves approximately 6,500 people through 1,400 metered connections.
- District 40, Antelope Valley, currently serves approximately 208,000 people through 57,000 metered connections.

3.17.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Clean Water Act

The Clean Water Act is the cornerstone of surface water quality protection in the United States. The statute employs a variety of regulatory and nonregulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff.

Section 303 of the Clean Water Act requires states to adopt water quality standards for all surface waters of the United States. Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric, although narrative criteria

based on biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. In Los Angeles County, the State Water Resources Control Board (SWRCB) and the Los Angeles Regional Water Quality Control Board (RWQCB) are responsible for ensuring implementation and compliance with the provisions of the federal Clean Water Act.

In 1972, the Clean Water Act was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the Clean Water Act added Section 402(p), which establishes a framework for regulating municipal and industrial stormwater discharges, including discharges associated with construction activities, under the NPDES program.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) ensures the quality of drinking water. The law requires actions to protect drinking water and its sources (rivers, lakes, reservoirs, springs, and groundwater wells) and applies to public water systems serving 25 or more people. It authorizes the U.S. Environmental Protection Agency (USEPA) to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants. In addition, it oversees the states, municipalities, and water suppliers that implement the standards.

USEPA standards are developed as a *Maximum Contaminant Level (MCL)* for each chemical or microbe. The MCL is the concentration that is not anticipated to produce adverse health effects after a lifetime of exposure, based on toxicity data and risk assessment principles. USEPA's goal in setting MCLs is to assure that even small violations for a period of time do not pose significant risk to the public's health over the long run. *National Primary Drinking Water Regulations* are legally enforceable standards that limit the levels of contaminants in drinking water supplied by public water systems. Secondary standards are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. USEPA recommends secondary standards to water systems but does not require systems to comply. However, states may choose to adopt them as enforceable standards.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), enacted in 1976, is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. The RCRA amended the Solid Waste Disposal Act of 1965 and set national goals for all of the following:

- Protecting human health and the natural environment from the potential hazards of waste disposal.
- Conserving energy and protecting natural resources.
- Reducing the amount of waste generated, through source reduction and recycling.
- Ensuring the management of waste in an environmentally sound manner.

The RCRA is now most widely known for the regulations that set standards for the treatment, storage, and disposal of hazardous waste in the United States. USEPA published waste management regulations, which are codified in Title 40 of the Code of Federal Regulations at Parts 239–282. Most states have enacted laws and created regulations that are at least as stringent as the federal regulations.

State Laws, Regulations, and Policies

California Water Code

The California Water Code, a section of the California Code of Regulations, establishes the governing laws pertaining to all aspects of water management in California.

State Water Resources Control Board

The SWRCB was created by the California Legislature in 1967 with the mission of ensuring the highest reasonable quality for waters of the state, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB has authority over water allocation by administering and regulating appropriate water right permits and licenses, as per the Water Code, which require that all uses of water be “reasonable and beneficial,” which includes municipal and industrial uses, irrigation, hydroelectric generation, and livestock watering.

In 1970, the Porter-Cologne Water Quality Control Act created nine RWQCBs that develop and enforce water quality objectives of the state and implementation plans within their region. The RWQCBs oversee various programs that protect surface water and groundwater quality, and enforce the federal NPDES Wastewater Program, and NPDES Stormwater Program. The RWQCBs are also responsible for developing and implementing total maximum daily loads for impaired water bodies.

Urban Water Management Planning Act

The Urban Water Management Planning Act was enacted in 1983 and codified as Water Code Sections 10610–10657. This law requires “every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet per year (afy), to prepare and adopt, in accordance with prescribed requirements, an urban water management plan.” Urban water suppliers must file urban water management plans (UWMPs) with DWR every five years describing and evaluating reasonable and practical efficient water uses, reclamation, and conservation activities.

A number of requirements regarding preparation of water management plans have been added to the Urban Water Management Planning Act. These additional requirements include: (1) a narrative description of water demand measures implemented over the past five years and future measures planning to meet 20 percent demand reduction targets by 2020; (2) a standard methodology of calculating system water loss; (3) a voluntary reporting of passive conservation savings, energy intensity, and climate change; and (4) an analysis of water features that are artificially supplied with water. If groundwater is identified as a water source available to the supplier, the UWMP must include the following additional information: (1) a groundwater management plan; (2) a description of the groundwater basin(s) to be used and the water use

adjudication rights, if any; (3) a description and analysis of groundwater use in the past five years; and (4) a discussion of the sufficiency of the groundwater that is projected to be pumped by the supplier.

Senate Bill X7-7, Water Conservation Act of 2009

Senate Bill (SB) X7-7, the Water Conservation Act of 2009 (Water Code Section 10608) requires all water suppliers to increase water use efficiency. Enacted in 2009, this legislation set an overall goal of reducing per capita urban water use, compared to 2009 use, by 20 percent by December 31, 2020. The State of California was required to make incremental progress toward this goal by reducing per capita water use by at least 10 percent on or before December 31, 2015. Monthly statewide savings of potable water reached 25.1 percent in February 2017, as compared to potable water use in February 2013. Cumulative statewide savings from June 2015 through February 2017 were estimated at 22.5 percent. Following a multiyear drought and improvements to hydrologic conditions, statewide potable water savings reached 14.7 percent in August 2017, as compared to potable water use in August 2013.

Senate Bill 610 and Senate Bill 221

Two state laws addressing the assessment of water supply necessary to serve projects—SB 610 and SB 221—became effective on January 1, 2002. SB 610 (Water Code Section 10910 et seq.) describes requirements for water supply assessments (WSAs) applicable to the CEQA process and, defines the role UWMPs play in the WSA process. Under SB 610, for a proposed project subject to CEQA that meets specific criteria, the water supplier must prepare a WSA that determines whether the water supplier has sufficient water resources to serve the projected water demand associated with the project. SB 610 provides specific guidance regarding how future supplies are to be calculated where an applicable UWMP has been prepared. Specifically, a WSA must identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' water deliveries received by the public water system. In addition, the WSA must address water supplies over a 20-year period and consider normal, single-dry-year, and multiple-dry-year conditions.

The WSA must be approved by the public water supplier serving the project at a regular or special meeting and must be incorporated into the CEQA document. The lead agency must then make certain findings related to water supply based on the WSA.

. In contrast to SB 610 WSAs, which are prepared at the beginning of the planning process for qualifying projects, SB 221 requires a water supply verification for large subdivision projects at the end of the planning process. Under SB 221 (Government Code Sections 11010, 65867.5, 66455.3, and 66473.7), a water supplier must prepare and adopt a water supply verification indicating that sufficient water supply is available to serve a proposed subdivision, or the local agency must make a specified finding that sufficient water supplies are or will be available before completion of a project as part of the conditions for the approval of a final subdivision map. SB 221 specifically applies to residential subdivisions of 500 units or more.

State of Drought Emergency Declaration and Emergency Regulation

In response to California’s persistent drought conditions, Governor Gavin Newsom proclaimed a drought state of emergency for all counties in California and, on October 19, 2021, issued a proclamation urging all Californians to intensify their water conservation efforts to ensure all Californians were taking sufficient actions to conserve water and preserve the state’s water supply (State of California Executive Department 2021). The SWRCB adopted an emergency drought regulation, which became effective on January 18, 2022 (SWRCB 2022). The emergency regulation will remain in effect for one year from the effective date (i.e., until January 18, 2023) unless the SWRCB acts to end, modify, or readopt it (State of California 2022). Severe drought conditions persist. On March 28, 2022, Governor Newsom issued Executive Order N-7-22, which noted that “early rains in October and December 2021 gave way to the driest January and February in recorded history for the watersheds that provide much of California’s water supply” and that this (coupled with the absence of significant rains in March) has “required the Department of Water Resources to reduce anticipated deliveries from the State Water Project to 5 percent of requested supplies.” Executive Order N-7-22 further proclaims that “to protect public health and safety, it is critical the State take certain immediate actions without undue delay to prepare for and mitigate the effects of the drought conditions.”

Sustainable Groundwater Management Act

On September 16, 2014, Governor Edmund G. Brown Jr. signed a three-bill package¹ known as the Sustainable Groundwater Management Act (SGMA) that creates a framework for local agencies to achieve sustainable, local groundwater management within 20 years through groundwater sustainability agencies (GSAs). In September 2015, Governor Brown signed SB 13, which made various technical, clarifying changes to the SGMA, including its requirements for GSA formation, the process for intervention by the SWRCB if no responsible agency is specified for a basin, guidelines for high- and medium-priority basins, and participation by mutual water companies in a GSA.

The formation of GSAs for all basins designated as high- and medium-priority groundwater basins was required by July 1, 2017. The LA County Department of Regional Planning represents LA County on two GSAs: the Santa Clarita Valley GSA and Santa Monica Basin GSA. Each GSA for these high- and medium-priority basins is charged with development of a groundwater sustainability plan (GSP) that details how sustainable groundwater management will be achieved within 20 years of GSP implementation. The GSP is a tool used to help the GSA sustainably manage the basin. Final GSPs were approved for the Santa Clarita Valley and Santa Monica Basin GSAs in January 2022 (Santa Clarita Valley GSA 2022; Santa Monica Basin GSA 2022).

Los Angeles County overlies several adjudicated groundwater basins: the Upper Los Angeles River Area Basin, the Antelope Valley Groundwater Basin, the Central and West Coast groundwater basins, and the San Gabriel Valley Groundwater Basin. Each of these adjudicated groundwater basins is exempt from the SGMA with limited exceptions—for example, reporting and monitoring.

¹ The three bills that make up the SGMA are AB 1739 by Assemblymember Roger Dickinson, SB 1319, and SB 1168 by Senator Fran Pavley.

Assembly Bill 939

AB 939, the Integrated Solid Waste Management Act of 1989 (Public Resources Code 40050 et seq.), requires local agencies to create waste management practices that focus on source reduction, recycling and composting, and environmentally safe land disposal. AB 939 also requires counties to provide a 15-year solid waste disposal plan, reflecting sufficient disposal capacity for all jurisdictions.

Regional and Local Laws, Regulations, and Policies

Metropolitan Water District of Southern California 2020 Urban Water Management Plan

MWD's 2020 UWMP addresses the future of MWD's water supplies and demand through the year 2045 (MWD 2021). Evaluations are prepared for average-year conditions, single-dry-year conditions, and multiple-dry-year conditions. The analysis for multiple-dry-year conditions (i.e., under the most challenging weather conditions such as drought and service interruptions caused by natural disasters) is presented in Table 2-5 of the 2020 UWMP (MWD 2021). The analysis in the 2020 UWMP concluded that reliable water resources would be continuously available to meet demand through 2045. As stated in the 2020 UWMP, the projected 2045 demand for water during a multiple-year drought is 1,564,000 afy, whereas the expected and projected 2045 supply is 2,239,000 afy based on current programs. (MWD 2021; Table 2-5)

MWD has established water surplus and drought management and water supply allocation plans. These comprehensive plans identify the stages at which actions would be undertaken to address up to a 50 percent reduction in its water supplies and a catastrophic interruption in water supplies. MWD has also developed an emergency storage requirement to mitigate the effects of a potential interruption in water supplies caused by a catastrophic occurrence in the Southern California region, and is working with the state to implement a comprehensive improvement plan addressing catastrophic occurrences that could occur outside of Southern California. MWD is also working with the state on the Delta Risk Management Strategy to reduce the impacts of a seismic event in the Sacramento–San Joaquin Delta that would cause levee failure and disruption of State Water Project deliveries. In addition, MWD has plans for supply implementation and continued development of a diversified resource mix, including programs in the Colorado River Aqueduct, State Water Project, Central Valley transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs.

Los Angeles County General Plan 2035

Public Services and Facilities Element

The following goals and policies from the General Plan are applicable to utilities and service systems.

Goal PS/F 1: A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development.

Policy PS/F 1.1: Discourage development in areas without adequate public services and facilities.

Policy PS/F 1.2: Ensure that adequate services and facilities are provided in conjunction with development through phasing or other mechanisms.

Policy PS/F 1.3: Ensure coordinated service provision through collaboration between County departments and service providers.

Policy PS/F 1.4: Ensure the adequate maintenance of infrastructure.

Policy PS/F 1.5: Focus infrastructure investment, maintenance and expansion efforts where the General Plan encourages development.

Policy PS/F 1.6: Support multi-faceted public facility expansion efforts, such as substations, mobile units, and satellite offices.

Policy PS/F 1.7: Consider resource preservation in the planning of public facilities.

Goal PS/F 2: Increased water conservation efforts.

Policy PS/F 2.1: Support water conservation measures.

Policy PS/F 2.2: Support educational outreach efforts that discourage wasteful water consumption.

Goal PS/F 3: Increased local water supplies through the use of new technologies.

Policy PS/F 3.1: Increase the supply of water through the development of new sources, such as recycled water, gray water, and rainwater harvesting.

Policy PS/F 3.2: Support the increased production, distribution and use of recycled water, gray water, and rainwater harvesting to provide for groundwater recharge, seawater intrusion barrier injection, irrigation, industrial processes and other beneficial uses.

Goal PS/F 4: Reliable sewer and urban runoff conveyance treatment systems.

Policy PS/F 4.1: Encourage the planning and continued development of efficient countywide sewer conveyance treatment systems.

Policy PS/F 4.2: Support capital improvement plans to improve aging and deficient wastewater systems, particularly in areas where the General Plan encourages development, such as TODs [Transit Oriented Developments].

Policy PS/F 4.3: Ensure the proper design of sewage treatment and disposal facilities, especially in landslide, hillside, and other hazard areas.

Policy PS/F 4.4: Evaluate the potential for treating stormwater runoff in wastewater management systems or through other similar systems and methods.

Goal PS/F 5: Adequate disposal capacity and minimal waste and pollution.

Policy PS/F 5.1: Maintain an efficient, safe and responsive waste management system that reduces waste while protecting the health and safety of the public.

Policy PS/F 5.2: Ensure adequate disposal capacity by providing for environmentally sound and technically feasible development of solid waste management facilities, such as landfills and transfer/processing facilities.

Policy PS/F 5.3: Discourage incompatible land uses near or adjacent to solid waste disposal facilities identified in the Countywide Integrated Waste Management Plan.

Policy PS/F 5.4: Encourage solid waste management facilities that utilize conversion and other alternative technologies and waste to energy facilities.

Policy PS/F 5.5: Reduce the County’s waste stream by minimizing waste generation and enhancing diversion.

Policy PS/F 5.6: Encourage the use and procurement of recyclable and biodegradable materials.

Policy PS/F 5.7: Encourage the recycling of construction and demolition debris generated by public and private projects.

Policy PS/F 5.8: Ensure adequate and regular waste and recycling collection services.

Policy PS/F 5.9: Encourage the availability of trash and recyclables containers in new developments, public streets, and large venues.

Goal PS/F 6: A County with adequate public utilities.

Policy PS/F 6.1: Ensure efficient and cost-effective utilities that serve existing and future needs.

Policy PS/F 6.2: Improve existing wired and wireless telecommunications infrastructure.

Policy PS/F 6.3: Expand access to wireless technology networks, while minimizing visual impacts through co-location and design

Policy PS/F 6.4: Protect and enhance utility facilities to maintain the safety, reliability, integrity and security of utility services.

Policy PS/F 6.5: Encourage the use of renewable energy sources in utility and telecommunications networks.

Policy PS/F 6.6: Encourage the construction of utilities underground, where feasible.

Policy PS/F 6.7: Discourage above-ground electrical distribution and transmission lines in hazard areas.

Policy PS/F 6.8: Encourage projects that incorporate onsite renewable energy systems.

Policy PS/F 6.9: Support the prohibition of public access within, and the limitation of access in areas adjacent to natural gas storage facilities and oil and gas production and processing facilities to minimize trespass and ensure security.

Policy PS/F 6.10: Encourage utility siting to be localized and decentralized to reduce impacts; reduce transmission losses; promote local conservation by connecting users to their systems more directly; and reduce system malfunctions.

General Plan Implementation Programs

PS/F-1 Planning Area Capital Improvement Plans: DRP [LA County Department of Regional Planning] and DPW [LA County Department of Public Works] jointly secure sources of funding and set priorities for preparing studies to assess infrastructure needs for the 11 Planning Areas.

Once funding has been secured and priorities have been set, a Capital Improvement Plan is prepared for each of the 11 Planning Areas. Each Capital Improvement Plan shall include the following as needed:

- Sewer Capacity Study
- Transportation System Capacity Study
- Waste Management Study
- Stormwater System Study
- Public Water System Study
- List of necessary infrastructure improvements
- Implementation Program
- Financing Plan

As applicable, studies related to water, sewer, traffic, and stormwater management specifically address the needs of the unincorporated disadvantaged communities, including fringe and legacy communities defined in the Land Use Element.

Telecommunication Ordinances

The LA County Department of Regional Planning (County Planning) reviews applications and issues approvals for all wireless facilities in the public right-of-way and is currently considering the adoption of two ordinances covering the installation of new telecommunications facilities. The ordinances would be two separate amendments to Title 16 (Highways) and Title 22 (Planning and Zoning) of the LA County Code that establish regulations, development standards, and review procedures for wireless facilities. Title 16 regulates the public right-of-way, which include streets, sidewalks, alleys, and highways, but are summarily referred to as *highways*. Title 22 regulates private and public property outside the public right-of-way.

Both ordinances would establish regulations for different types of wireless facilities based on their locations. Title 16 would address small cell facilities located on existing or proposed vertical infrastructure—such as streetlights, utility poles, and traffic signal poles—in the public right-of-way. Title 22 would address macro towers in the public right-of-way and small cell facilities and all other wireless facilities on private and public property.

3.17.2 Impact Analysis

3.17.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would have a significant impact on utilities and service systems if it would:

- a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects;
- b) Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;

- c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- e) Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Based on the analysis documents in the initial study (Appendix A2), it was concluded that implementation of the Draft 2045 CAP would result in no impact with respect to criterion e), either directly or as a result of future projects facilitated by Draft 2045 CAP measures and actions; requisite compliance with existing laws governing the management and reduction of solid waste would ensure that no significant impact would result. Accordingly, criterion e) was not carried forward for more detailed review.

3.17.2.2 Methodology

The evaluation of impacts related to the provision of wastewater and solid waste services is based on a review of existing policies, documents, and studies that address both services in the County. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify environmental impacts based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local laws, ordinances, and regulations.

3.17.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed greenhouse gas emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of the individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of the implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the impacts of implementing these measures and actions that could result, rather than the project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of utilities and service systems-related impacts. These and other relevant measures and actions include: Action T6.7 (increase the use of

green hydrogen vehicles) and Action T9.2 (identify types of zero-emission vehicle and green hydrogen equipment that are commercially available and require the use of these equipment on all new projects) because the hydrogen generation that would be needed can be a water-intensive process; and Measure W2 (increase Organic Waste Diversion) and associated Actions W2.4, W2.5, and W2.6 because they relate to landfill diversion. Specific utilities and service systems impacts of implementing Draft CAP measures and actions are analyzed below.

Criterion a) Whether the Project would require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.

Impact 3.17-1: Projects facilitated by the Draft 2045 CAP would require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. (*Significant and Unavoidable*)

The Draft 2045 CAP is a policy document that would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly result in new or expanded facilities. However, projects facilitated by Draft 2045 CAP measures and actions could promote the construction of new facilities to achieve goals for water conservation and recycling, energy efficiency, renewable energy, and waste diversion. Some of the measures may result in retrofitting, plumbing, and electrical modifications in existing buildings or the installation of new features such as rooftop solar or water recycling systems (Measures E1, E4, E5, E6, and W3). In general, projects facilitated by Draft 2045 CAP measures and actions are expected to result in beneficial environmental impacts on utilities by reducing water demand, reducing demand on water recycling facilities, and reducing demand for natural gas and electrical power through energy efficiency measures and measures to achieve low-carbon energy use (Measures ES1 and Measures E1 through E4).

As described above, the Draft 2045 CAP would result in primarily beneficial impacts with regard to the use of water, wastewater treatment, electric power, natural gas, and stormwater drainage. However, the Draft 2045 CAP could promote the construction of new facilities such as utility-scale energy projects (solar, battery storage, substation, transmission) in the Antelope Valley, new water recycling facilities, electric vehicle charging stations, and composting facilities, which could result in environmental impacts.

Future projects facilitated by Draft 2045 CAP measures and actions would be evaluated on an individual basis once details are known. However, as described throughout this EIR, construction of some utility projects, in particular utility-scale energy projects, could result in significant impacts on environmental resources including air quality, biological resources, cultural resources, water quality, transportation, and noise.

Mitigation measures outlined in this EIR that would reduce these impacts have been developed. (See Section 3.4, *Air Quality*; Section 3.5, *Biological Resources*; Section 3.6, *Cultural Resources*; Section 3.10, *Hazards and Hazardous Materials*; Section 3.13, *Noise*; and Section 3.15, *Transportation*.) Nonetheless, as described in these sections of the EIR, construction of new water, wastewater, stormwater drainage, electric power, natural gas power, or telecommunications utilities would result in significant and unavoidable impacts.

Mitigation Measures: From Section 3.4, Air Quality, implement Mitigation Measure 3.4-1 through Mitigation Measure 3.4-4. From Section 3.5, Biological Resources, implement Mitigation Measure 3.5-1 through Mitigation Measure 3.5-3. From Section 3.6, Cultural Resources, implement Mitigation Measure 3.6-1 through Mitigation Measure 3.6-10. From Section 3.10, Hazards and Hazardous Materials, implement Mitigation Measure 3.10-2. From Section 3.13, Noise, implement Mitigation Measure 3.13-1 through Mitigation Measure 3.13-4. From Section 3.15, Transportation, implement Mitigation Measure 3.15-1.

Significance after Mitigation: Although these mitigation measures would reduce impacts of projects facilitated by Draft 2045 CAP measures and actions, many would remain significant and unavoidable. See Table ES-2, *Summary of Impacts and Mitigation Measures*, in the Executive Summary for details. No additional mitigation measures are feasible.

Criterion b) Whether the Project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Impact 3.17-2: Projects facilitated by the Draft 2045 CAP would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. (*Less-than-Significant Impact*)

The Draft 2045 CAP includes a number of measures and actions to increase the use of alternate water sources and reduce water consumption. Included within Measure E8 are implementing actions to develop a net-zero water ordinance, remove barriers for retrofitting on-site gray water recycling systems, and partner with LA County to explore the potential for indirect potable reuse. The performance goals for Measure E5 include the following: (1) Meet 100 percent of Countywide water demand by recycled water, gray water, and/or direct potable reuse by 2045; and (2) achieve 80 percent use of recycled water for agricultural and industrial uses by 2045. Measure E6, which is intended to reduce indoor and outdoor water consumption, includes the following performance goals: (1) Reduce water consumption by 50 percent by 2045; (2) adopt a water efficiency ordinance for existing buildings; (3) achieve net-zero water in 100 percent of new development by 2030; (4) reduce outdoor landscaping water use by 50 percent by 2045; and (5) reduce municipal water consumption by 50 percent by 2045.

As demonstrated by the performance metrics, implementation of Measures E5 and E6 would substantially reduce municipal, agricultural, industrial, and outdoor landscaping water use. Future projects facilitated by Draft 2045 CAP measures and actions may increase demand for water during construction. As described in Section 3.11, *Hydrology and Water Quality*, future projects

would be independently subject to compliance with state regulations and local plans to reduce impacts associated with water demands in normal, dry, and multiple dry years as outlined in local UWMPs. Water needed to construct future projects would be provided by water retail agencies. These agencies would provide water to projects within their ability to serve outlined in their UWMPs and as required under SB 610 and SB 221. Groundwater resources needed to support future projects would be subject to regulations associated with basin adjudications or GSPs to ensure that future water demands do not exceed sustainability goals. Compliance with these requirements would ensure that impacts on water supplies from the Draft 2045 CAP and projects facilitating Draft 2045 CAP measures and actions would be less than significant.

Mitigation: None required.

Criterion c) Whether the Project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

Impact 3.17-3: Projects facilitated by the Draft 2045 CAP would not result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly result in increased demand on wastewater treatment facilities; however, projects facilitating Draft 2045 CAP measures and actions could increase demand on wastewater treatment facilities. Increases in demand for wastewater treatment are generally associated with an increase in population. As described in Section 3.14, *Population and Housing*, the Draft 2045 CAP would be consistent with the General Plan and the 2021–2029 Housing Element and would not result in population growth outside of what was accounted for in the General Plan. Therefore, the buildout assumptions that inform the measures in the Draft 2045 CAP would be consistent with the population growth planned for in the General Plan's 2021–2029 Housing Element.

The Draft 2045 CAP would include measures to increase water conservation, which could result in a slight decrease in the amount of wastewater requiring treatment by wastewater treatment providers. Some measures in the Draft 2045 CAP would promote the development of facilities that could include mixed-use development, water recycling facilities, or compost processing facilities (Measures E5, W1, and W3). These facilities could result in some changes in wastewater volumes or treatment technologies. However, future projects facilitated by Draft 2045 CAP measures and actions would not result in increased population that would result in the need to expand overall wastewater treatment capacities in the County beyond existing capacity. Impacts would be less than significant.

Mitigation: None required.

Criterion d) Whether the Project would generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

Impact 3.17-4: Projects facilitated by the Draft 2045 CAP would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that would support development already allowed under the General Plan's land use assumptions of the 2021–2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly generate solid waste. The Draft 2045 CAP encourages the reduction of solid waste, and it includes Strategy 8 to reduce greenhouse gas emissions associated with solid waste generation. The intent is to increase solid waste diversion to reduce the amount of solid waste placed in landfills. Strategy 8 includes Measure W2, which includes implementing actions to increase organic composting in nonresidential buildings and within communities. The performance goal for Measure W2 is to reduce organic waste disposal (in landfills) by 95 percent by 2045. Measure W3 includes implementing actions to increase the diversion of recyclable materials. Measure W1 includes implementing measures to incorporate sustainable waste systems and practices with a goal of decreasing per capita waste by 35 percent by 2045. The implementation of these measures would reduce solid waste generation within the County and impacts would be beneficial.

Implementation of Draft 2045 CAP measures and actions could result in the construction of facilities to meet goals for water recycling, waste diversion, and renewable energy, which could result in waste generated by project construction and operation. Future projects would be subject to AB 939, requiring waste reduction and recycling measures during construction as well as operation. Minimal waste would be generated during construction and operation of utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities. Construction could generate concrete, wood, scrap metal, plastics from packaging material waste. Operational waste would include typical office waste from activities at future operations and maintenance facilities and, periodically, packaging wastes from solar or wind equipment and supplies. Solid waste generated during construction and operation would be recycled to the extent possible pursuant to AB 939. In accordance with Title 22, Chapter 20.87, of the LA County Code, utility-scale renewable energy project applicants would also be required to prepare a recycling and reuse plan and progress reports to implement and document recycling practices. As a result, solid waste generation from future utility-scale facilities is not anticipated to exceed local landfill capacities.

Some solar panels contain metals such as cadmium or tellurium that could be released into the environment if panels are broken or disposed of improperly. Waste recycling and hazardous waste disposal activities would be subject to regulations, including for disposal of aging or broken solar panels, that would minimize these impacts, as described in Section 3.10, *Hazards and Hazardous Materials*. Therefore, adoption of the Draft 2045 CAP would not impair attainment of solid waste reduction goals or generate substantial solid waste in excess of state or

local standards, or in excess of the capacity of local infrastructure. Impacts would be less than significant.

Mitigation: None required.

3.17.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts related to utilities and service systems, the geographic area of consideration consists of Los Angeles County, inclusive of both incorporated and unincorporated areas. This geographic scope of analysis is appropriate for the analysis of utilities and service systems because cumulative projects have the potential to cause significant impacts on Los Angeles County if they exceed the capacity of current and projected infrastructure accounted for in the General Plan. Cumulative impacts could result as soon as projects facilitated by the Draft 2045 CAP are initiated and last in perpetuity.

Criterion a)

Impact 3.17-5: Projects facilitated by the Draft 2045 CAP would cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. (*Significant and Unavoidable Cumulative Impact*)

Future projects facilitated by the Draft 2045 CAP measures and actions could result in the construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities. Draft 2045 CAP measures and actions combined with other closely related past, present, and reasonably foreseeable future projects could promote the construction of new facilities to achieve goals for water conservation and recycling, energy efficiency, renewable energy, and waste diversion.

However, future projects facilitated by Draft 2045 CAP measures and actions would improve existing public utilities infrastructure and would not result in increased demand for new infrastructure not already anticipated with the expected population growth. Based on projections from the General Plan Draft EIR, the majority of expected population growth within the unincorporated areas will occur in northern Los Angeles County, including the Antelope Valley Planning Area and Santa Clarita Planning Area. This expected population growth would generate the need for additional services and infrastructure. General Plan Implementation Program PS/F-1, Planning Area Capital Improvement Plan, requires the LA County Department of Regional Planning and Department of Public Works to secure funding and access infrastructure needs for the 11 planning areas.

Additionally, Policy PS/F 4.2 requires LA County to support capital improvement plans and improve aging and insufficient wastewater infrastructure. Policy PS/F 6.1 is intended to ensure that efficient and cost-effective utilities are available to serve existing and future needs. Accordingly, future related projects facilitated by Draft 2045 CAP measures and actions, as well

as other closely related past, present, and reasonably foreseeable future projects, would be required to comply with local, state, and federal regulations. Implementation of Policies PS/F-1, PS/F4.2, and PS/F 6.1 would reduce project impacts. Nevertheless, cumulative impacts related to construction of new or expanded utility facilities would be significant.

As described above, the Draft 2045 CAP could promote the construction of new facilities such as utility-scale energy projects (solar, battery storage, substation, transmission) in the Antelope Valley, new water recycling facilities, electric vehicle charging stations, and composting facilities, which could result in environmental impacts. As described throughout this PEIR, construction of the utility-scale energy projects could result in significant impacts on environmental resources including air quality, biological resources, cultural resources, water quality, transportation, and noise. Therefore, the Project's contribution to cumulative impacts related to construction of new or expanded utility facilities would be cumulatively considerable.

Mitigation measures outlined in this PEIR that would reduce these impacts have been developed. Nonetheless, as noted in this PEIR, construction of new water, wastewater, stormwater drainage, electric power, natural gas power, or telecommunications utilities would result in significant and unavoidable impacts. As a result, the Project's impacts would remain cumulatively considerable.

Mitigation: From Section 3.4, Air Quality, implement Mitigation Measure 3.4-1 through Mitigation Measure 3.4-4. From Section 3.5, Biological Resources, implement Mitigation Measure 3.5-1 through Mitigation Measure 3.5-3. From Section 3.6, Cultural Resources, implement Mitigation Measure 3.6-1 through Mitigation Measure 3.6-10. From Section 3.10, Hazards and Hazardous Materials, implement Mitigation Measure 3.10-2. From Section 3.13, Noise, implement Mitigation Measure 3.13-1 through Mitigation Measure 3.13-4. From Section 3.15, Transportation, implement Mitigation Measure 3.15-1.

Significance after Mitigation: Although these mitigation measures would reduce the incremental impacts of the Project, the Project's contribution to cumulative impacts in many instances would remain cumulatively considerable and therefore significant and unavoidable. No additional mitigation measures are feasible.

Criterion b)

Impact 3.17-6: Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to insufficient water supplies. (*Less-than-Significant Cumulative Impact*)

Future projects facilitated by the Draft 2045 CAP measures and actions could result in insufficient water supplies. Based on projections from the General Plan Draft EIR, the majority of expected population growth within the unincorporated areas will occur in northern Los Angeles County, including the Antelope Valley Planning Area and Santa Clarita Planning Area.

Based on the UWMPs of local water wholesalers, which include MWD and other local water districts, sufficient quantities of water are available to meet cumulative water demand projections during normal dry and multiple dry years, including residential and nonresidential development associated with population increases. Implementation of the Draft 2045 CAP would not cause an

increase in population that would exceed UWMP projections. Furthermore, policies and goals in the local general plans strive to ensure that future projects do not supersede the anticipated water consumption and demand. Policy PS/F 3.1 aims to increase the supply of water through the development of new sources, such as recycled water, gray water, and rainwater harvesting. Policy PS/F 3.2 will support the increased production, distribution, and use of recycled water, gray water, and rainwater harvesting to provide for groundwater recharge, seawater intrusion barrier injection, irrigation, industrial processes, and other beneficial uses. Goal PS/F 2 works to increase water conservation efforts.

Additionally, the Draft 2045 CAP includes similar measures to reduce water consumption and increase local water supplies. The performance goals for Measure 8 include the following: (1) achieve net-zero water in 100 percent of new development by 2030; and (2) achieve 80 percent use of recycled water for agricultural and industrial uses by 2045. Measure E9, which is intended to reduce indoor and outdoor water consumption, includes the following performance goals: (1) Reduce water consumption by 50 percent by 2045; (2) adopt a water efficiency ordinance for existing buildings; (3) reduce outdoor landscaping water use by 50 percent by 2045; and (4) reduce municipal water consumption by 50 percent by 2045.

As demonstrated by the performance metrics, implementation of Measures E8 and E9 would substantially reduce municipal, agricultural, industrial, and outdoor landscaping water use. Accordingly, future related projects facilitated by Draft 2045 CAP measures and actions, as well as other closely related past, present, and reasonably foreseeable future projects, would be required to comply with local regulations and when necessary obtain WSAs from local water agencies to ensure the availability of sufficient water supplies to support the projects' demands. Given compliance with these water supply planning requirements and independent compliance with enforceable state law requirements such as drought Executive Orders, AB 610 and SB 221, the Project would not contribute to a significant water supply cumulative impact, and its impacts would not be cumulatively considerable.

Mitigation: None required.

Criterion c)

Impact 3.17-7: Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to inadequate wastewater treatment capacity. (*Less-than-Significant Cumulative Impact*)

Future projects facilitated by the Draft 2045 CAP measures and actions could result in insufficient wastewater treatment services. Draft 2045 CAP strategies combined with other closely related past, present, and reasonably foreseeable future projects could cause significant impacts if they would generate wastewater exceeding the combined capacity of wastewater treatment facilities in Los Angeles County. Based on the General Plan's cumulative wastewater treatment capacity projections, the region has the capacity to treat wastewater from cumulative projects at existing wastewater treatment plants including municipal facilities and Los Angeles County Sanitation Districts' facilities. Additional policies and goals outlined in the General Plan will ensure that future projects facilitated by Draft 2045 CAP measures and actions, as well as

other closely related past, present, and reasonably foreseeable future projects, do not exceed the combined capacity of wastewater treatment plants in Los Angeles County. Policy PS/F 5.1 will support an efficient, safe, and responsive waste management system that reduces waste while protecting the health and safety of the public. Policy PS/F 4.2 requires LA County to support capital improvement plans and improve on aging and insufficient wastewater infrastructure.

Accordingly, future related projects within the unincorporated areas of the County as well as within local municipalities, resulting from Draft 2045 CAP measures and actions, would not cause an increase in population that would result in the need to expand wastewater treatment infrastructure. As a result, the Project would not contribute to a significant wastewater treatment cumulative impact, and its impacts would not be cumulatively considerable.

Mitigation: None required.

Criterion d)

Impact 3.17-8: Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. (*Less-than-Significant Cumulative Impact*)

Future projects facilitated by the Draft 2045 CAP measures and actions would not generate waste in quantities that could result in insufficient solid waste infrastructure or exceed state and local standards. Existing regulations requiring waste minimization, recycling, and composting provide for sufficient solid waste disposal capacity in the County, including for both municipalities and unincorporated areas.

Both LA County and each municipality within Los Angeles County has identified solid waste capacity requirements through buildout as required by their general plans. Based on these general plans, landfills, recycling centers, and composting facilities are expected to accommodate the increase in solid waste. Future projects facilitated by the Draft 2045 CAP measures and actions combined with other closely related past, present, and reasonably foreseeable future projects would be required to comply with AB 939, which requires LA County to construct new solid waste infrastructure if its capacity will be exhausted in 15 years.

Cumulative impacts from future projects, population, and development growth accounted for in the General Plan would not require the construction of new solid waste disposal facilities. Additional policies and goals outlined in the General Plan will ensure that future projects do not exceed the combined capacity of solid waste disposal infrastructure in Los Angeles County. Policy PS/F 5.2 will ensure adequate disposal capacity by providing for environmentally sound and technically feasible development of solid waste management facilities, such as landfills and transfer/processing facilities. Policy PS/F 5.4 will encourage solid waste management facilities that utilize conversion and other alternative technologies and waste to energy facilities. Policy PS/F 5.5 will reduce the County's waste stream by minimizing waste generation and enhancing diversion.

Additionally, the Draft 2045 CAP includes measures aimed to reduce the production of solid waste. Implementation of Strategy 8 would work to reduce greenhouse gas emissions associated with solid waste generation. The intent is to increase solid waste diversion to reduce the amount of solid waste placed in landfills. Strategy 8 includes Measure W2, which includes implementing actions to increase organic composting in nonresidential buildings and within communities. The performance goal for Measure W2 is to reduce organic waste disposal (in landfills) by 95 percent by 2045. Measure W3 includes implementing actions to increase the diversion of recyclable materials. Measure W1 includes implementing measures to incorporate sustainable waste systems and practices with a goal of decreasing per capita waste by 35 percent by 2045. Accordingly, future related projects facilitated by Draft 2045 CAP measures and actions, as well as other closely related past, present, and reasonably foreseeable future projects, would be required to comply with local regulations, including AB 939. Compliance with the requirements of state law and local plans would ensure that the Project would not contribute to a significant cumulative solid waste impact. Impacts would not be cumulatively considerable.

Mitigation: None required.

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3.18 Wildfire

This section identifies and evaluates wildfire issues to determine whether the Project would result in a significant impact related to impairment of adopted emergency response or evaluation plans, creation or exacerbation of wildfire risks, or the exposure of people or structures to significant risks of wildland fire or post-fire conditions. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to wildfire acknowledge that most types of development facilitated by the Draft 2045 CAP would occur in developed (or urban) areas and express concern that the particular large-scale projects allowed in A-2 zoned lands would likely occur in the Antelope Valley. This affects wildfire considerations because the application of large mulch berms for decomposition could be a fire hazard (e.g., once ignited, they are difficult to extinguish). Comments also request that the Draft 2045 CAP or mitigation measures identified in the EIR limit discretionary development in high-fire-risk areas and should encourage microgrid development, especially for fire-prone areas.

3.18.1 Setting

3.18.1.1 Study Area

The study area for this analysis of wildfire impacts consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated areas of the County. See Figure 2-1, *Map of Unincorporated Los Angeles County*.

3.18.1.2 Environmental Setting

Los Angeles County's undeveloped lands support natural habitats such as grasslands, sage scrub, chaparral, and limited forest areas. In the context of fire ecology, these areas are known as *wildlands*. Fire ecology research has shown that the natural fire regime for the County's shrublands and forests was one of frequent small fires and occasional large fires. Modern society has interrupted and fractured the natural fire process by initiating fire suppression policies, introducing invasive plant species that burn readily, and building houses within or adjacent to wildland areas (known as *wildland-urban interface areas*) such as the foothills of the San Gabriel Mountains. Although fires can occur anywhere in the County, fires that begin in wildland areas pose a serious threat to personal safety and structures due to their rapid spread and the extreme heat often generated by these fires. Past wildfires have taken lives, destroyed homes, and devastated many acres of the County's natural resources.

Fire Protection Services

Fire and emergency medical services in the unincorporated areas of the County are provided by the Los Angeles County Fire Department (LACoFD). LACoFD has 175 fire stations, nine divisions, and 22 battalions, and multiple divisions including Air and Wildland, Fire Prevention, Forestry, and Health Hazardous Materials (LACoFD 2018). LACoFD receives the majority of its revenue from the *ad valorem* property tax paid by owners of taxable properties in the unincorporated areas of the County (Los Angeles County 2014). LACoFD has a mutual aid agreement with the U.S. Forest Service (USFS); LACoFD has primary responsibility for fire suppression of structure fires, while USFS has primary responsibility for responding to non-structure fires. In the event of an emergency, both LACoFD and USFS would fight wildland and structure fires.

LACoFD follows the following standards for response times (Los Angeles County 2014):

- 5 minutes or less for response times for urban areas.
- 8 minutes or less for suburban areas.
- 12 minutes or less for rural areas (LACoFD 2021).

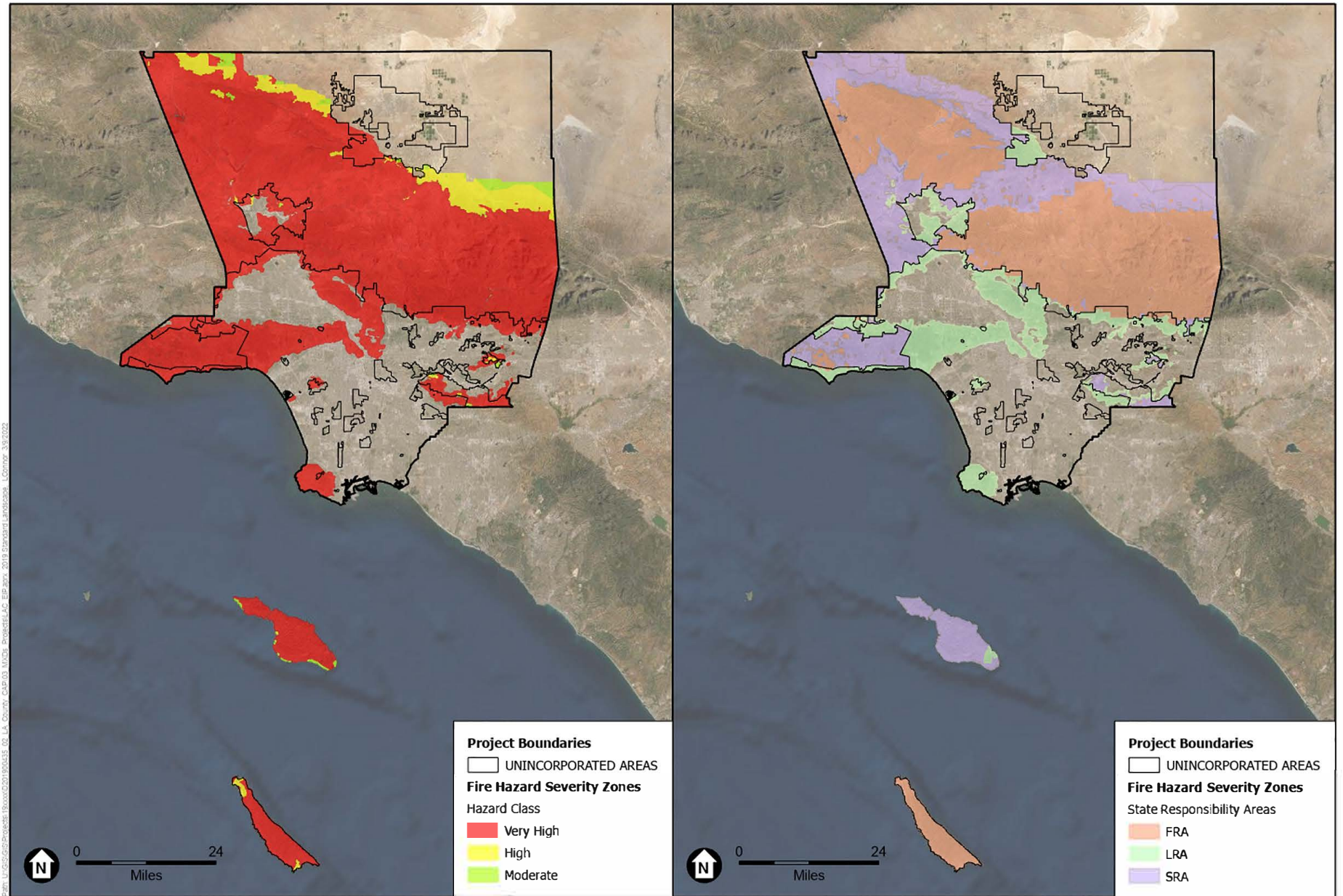
Designated Fire Hazard Severity Zones

The California Department of Forestry and Fire Protection (CAL FIRE) maps areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These areas, called *fire hazard severity zones* (FHSZs), are represented as Very High, High, or Moderate. The maps are divided into *Federal Responsibility Areas*, where the federal government is financially responsible for fire suppression; *State Responsibility Areas* (SRAs), where the state is financially responsible for wildfire suppression; and *Local Responsibility Areas* (LRAs), where cities or counties have the primary financial responsibility for wildfire suppression. As of 2019, in the unincorporated areas of the County, there were 23.53 square miles of Very High Fire Hazard Severity Zones (VHFHSZs) in the LRAs, 610.94 square miles of VHFHSZs in the SRAs, and 132.06 square miles of High FHSZs in the SRAs (Los Angeles County Chief Executive Office 2019). See **Figure 3.18-1**, *Fire Hazard Severity Zones and Responsibility Areas*.

Federal Responsibility Areas in the County include Angeles National Forest and federal land in the Santa Monica Mountains. SRAs include the Santa Susana Mountains, foothills of the San Gabriel Mountains, and parts of the Santa Monica Mountains. LRAs include foothills of the Santa Susana and San Gabriel mountains, the Verdugo Mountains, Santa Monica Mountains, Hollywood Hills, San Rafael Hills, Puente Hills, and other hills in the central Los Angeles area (CAL FIRE 2007; Los Angeles County 2014).

Fire Environment

Fire behavior is primarily dependent upon fuels (e.g., vegetation), weather (e.g., wind, temperature, and humidity), and topography (e.g., slope, elevation, and aspect). The combination of these three factors can help or hinder the spread of a wildfire if it occurs. Los Angeles County encompasses a very large area, and the topography, vegetation, and climate vary across the County.



SOURCE: LA County, 2021; CALFIRE, 2021; ESA, 2022

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Figure 3.18-1
Fire Hazard Severity Zones
and Responsibility Areas

Topography

Topography describes slope increases, which influence the rate of wildfire spread. South-facing slopes, for example, are subject to more solar radiation, which makes them drier and intensifies wildfire behavior. By comparison, ridge tops may mark the end of wildfire spread, because fire spreads more slowly or may even be unable to spread downhill (Los Angeles County Chief Executive Office 2019). Approximately 47 percent of Los Angeles County is mountainous and the remainder consists of alluvial valleys, coastal plains, and high desert. Elevations begin at sea level and rise to 10,069 feet (LACoFD 2021). The areas of the County that are most susceptible to wildfires are generally located in mountainous or hillside areas, including the Santa Monica Mountains, San Gabriel Mountains, Palos Verdes Hills, and Puente Hills; however, the areas where wildfire poses the greatest risk to people are located generally along the wildland-urban interface (Los Angeles County Chief Executive Office 2019).

Vegetation/Fuels

Fuel is the type and condition of vegetation that plays a significant role in wildfire spread occurrence. Certain plant types are more susceptible to burning or, once ignited, burn with greater intensity. Dense or overgrown vegetation increases the amount of combustible material available to fuel a fire (i.e., the *fuel load*); the ratio of living to dead plant matter is also important. Certain changes to the climate may increase wildfire risk significantly during prolonged drought periods, because they cause the moisture content to decrease for both living and dead plant matter. The continuity of both the horizontal and vertical fuel load is also an important factor (Los Angeles County Chief Executive Office 2019).

Large portions of the undeveloped areas of the County (particularly in the Santa Monica Mountains, Santa Clarita Valley, and Antelope Valley) include coastal sage, riparian oak woodland, and chaparral vegetation types. The Antelope Valley contains desert species such as juniper, Joshua tree, California scrub oak, creosote and pinyon pine. High country areas in the eastern portion of Los Angeles County include conifers and hardwoods. Fire risk in the County is particularly high in the undeveloped areas that are designated as VHFHSZs. These areas typically contain chaparral ecosystems, which contain volatile oils that are particularly flammable. Additionally, chaparral communities are typically located in mountainous areas where the steep terrain can fuel the spread of wildfire (LACoFD 2021).

Weather/Climate

Weather is the most variable factor affecting wildfire behavior. Temperature, humidity, wind, and lightning can affect ignition opportunities and fire spread rate. Extreme weather, such as high temperatures and low humidity, can lead to extreme wildfire activity. Climate change increases the susceptibility of vegetation to fire ignition because of the longer dry seasons. By contrast, cooling and higher humidity often signal reduced wildfire occurrence and easier containment (Los Angeles County Chief Executive Office 2019).

The Los Angeles basin has a Mediterranean climate and experiences warm dry summers and mild wet winters. High moisture levels during the winter rainy season significantly increase the growth of plants. However, the vegetation is dried during the long, hot summers, decreasing plant

moisture content and increasing the ratio of dead fuel to living fuel. As a result, fire susceptibility increases dramatically, particularly in late summer and early autumn.

The coastline in Los Angeles County experiences much cooler temperatures than inland areas, which can reach temperatures above 100 in the summer. The County experiences about 35 days of precipitation each year. In the autumn and winter months, high-pressure weather systems that develop over the Great Basin and Mojave Desert heat up air and produce strong offshore winds commonly known as *Santa Ana winds*. These winds have strong downslope winds that blow through the mountains, decrease relative air humidity and fuel moisture, and create conditions that can lead to the spread of high-severity wildland fires (LACoFD 2021).

Impacts of Wildfire on Air Quality

As wildfires burn fuel, large amounts of carbon dioxide, black carbon, brown carbon, and ozone precursors are released into the atmosphere. Additionally, wildfires emit a substantial amount of volatile and semi-volatile organic materials and nitrogen oxides that form ozone and organic particulate matter. These emissions can lead to harmful exposures for first responders, nearby residents, and populations in regions farther from the wildfires (NOAA 2021). Exposure to these pollutants can cause asthma attacks, coughing, and shortness of breath. Chronic exposure to these pollutants can increase the risk of developing chronic health conditions such as heart disease, diabetes, and cancer (Hamers 2018; Milman 2018).

Recent Fire History

In recent years, Los Angeles County has experienced many very large, damaging fires, including the 2020 Bobcat Fire, which burned 115,79 acres and destroyed 171 structures; and the 2020 Lake Fire, which burned 31,089 acres and destroyed 33 structures. The 2018 Woolsey Fire burned approximately 97,000 acres and destroyed more than 1,600 structures. According to the 2021 LACoFD Strategic Plan, in 2020 the County recorded 4,375 ignition starts—the majority caused by outside rubbish fires, followed by structure fires and vehicle sources (LACoFD 2021).

Future Fire Regime

In the *California's Wildfire and Forest Resilience Action Plan*, the Governor's Forest Management Task Force describes the southern region as including Los Angeles County as well as Imperial, Orange, Riverside, San Bernardino, and San Diego counties and a portion of Ventura County (CFMTF 2021). Some 22.4 million people live in this region; one in four of them face a high, very high, or extreme fire threat (CFMTF 2021). Each of the four bioregions that make up this area (the Mojave Desert, the Sonoran Desert, the Colorado Desert, and the coastal plains) contains countless ecosystems, meaning that fire behavior (or *fire regimes*) can vary widely.

In general, seasonal Santa Ana winds dominate fire behavior along the coast, and in mountainous areas, other wind patterns also affect fire spread inland. In inland areas, vegetation type and density have the greatest impact on fire patterns, especially where fine fuels such as grasses, chaparral, and shrubs can ignite easily and burn both hot and quickly. Other factors affecting fire behavior include elevation, slope, and distance from the coast (CFMTF 2021). Decades of fire suppression that have led to fuel buildup in forests and a departure from natural fire regimes have increased the severity

of fires throughout the state (CFMTF 2021). Increasing urbanization across previously undeveloped areas near existing cities (areas that sometimes are referred to as the *wildland-urban interface*) is diminishing the importance of climate in driving fire activity and increasing fire hazard. This is because humans are a major source of fire ignitions and are affecting wildfire patterns in unintended ways, such as by inhibiting prescribed burns because of concerns about air pollution and adjacency to homes (Hall et al. 2018). Fires are becoming larger and more destructive and massive quick-spreading fires are becoming more frequent (Syphard 2018). Wildfire is a common occurrence in the County (Los Angeles County Chief Executive Office 2019). Climate change is expected to increase both the risk and the intensity of wildfires in the region (CFMTF 2021).

Disaster Routes and Evacuation Routes

The LA County Department of Public Works describes *disaster routes* as “freeway, highway or arterial routes pre-identified for use during times of crisis” (LA County DPW 2022). These routes have been designated in advance to bring in emergency personnel, equipment, and supplies to affected areas to protect property, minimize environmental impacts, and save lives. During a disaster, these routes are prioritized for clearing, repairing, and restoration over all other roads (LA County DPW 2022). Disaster routes have been mapped for the north County operation area (LA County DPW 2012a) and the south County operation area (LA County DPW 2012b).

Disaster routes are not *evacuation routes*, which are used to move the affected population out of an affected area. An emergency may warrant the use of a road as both a disaster and evacuation route; however, the two are distinct (LA County DPW 2022). LA County has not formally adopted evacuation routes, but instead maps them as needed on an incident-by-incident basis. The *Topanga Community Wildland Fire Evacuation Plan* identifies LA County’s approach to ensure, in cooperation with public agencies, a safe and effective community response to a wildland fire evacuation (Los Angeles County Chief Executive Office 2009).

3.18.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Federal Response Plan

The Federal Response Plan of 1999 is an agreement between 27 federal agencies that provides the mechanism for coordinating delivery of federal assistance and resources to augment the efforts of state and local governments in the event of a major disaster or emergency.

State Laws, Regulations, and Policies

Executive Order B-52-18

Governor Edmund G. Brown Jr. signed Executive Order (EO) B-52-18 on May 10, 2018. EO B-52-18 recognizes that the size and intensity of wildfires have dramatically increased, and orders CAL FIRE to work with landowners to accelerate prescribed fire projects across jurisdictions and integrate fire prevention activities into landscape reforestation efforts in and near wildland-urban interface areas (LA County DPW 2022).

2018 Strategic Fire Plan for California

Developed by the Board of Forestry and Fire Protection, the *2018 Strategic Fire Plan for California* outlines goals and objectives to implement CAL FIRE's overall policy direction and vision (CAL FIRE 2018). The 2018 plan demonstrates CAL FIRE's focus on: (1) fire prevention and suppression activities to protect lives, property, and ecosystem services; and (2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and serve as important habitat for adaptation and mitigation. CAL FIRE provides direction for fire prevention and enforcement within the SRAs using fire resource assessments, a variety of available data, mapping, and other tools. Pre-fire management activities, including prescribed burning, fuel breaks, forest health treatments, and removal of hazardous vegetation, are conducted at the unit level under the guidance of CAL FIRE program managers. Through the 2018 Strategic Plan, CAL FIRE also delivers land use planning and defensible space inspection programs to the local level across the state.

The *2018 Strategic Fire Plan for California* outlines operational units, which geographically follow County lines and consist of one operational unit to three counties. Because each operational unit varies greatly in size, terrain, and fire suppression strategies, individual unit strategic fire plans are completed annually to address how each unit is achieving the goals and objectives of the California Strategic Fire Plan.

Governor's Forest Management Taskforce

On January 8, 2021, Governor Gavin Newsom's Forest Management Taskforce released *California's Wildfire and Forest Resilience Action Plan* (CFMTF 2021), a comprehensive plan to reduce wildfire risk for vulnerable communities, improve the health of forests and wildlands, and accelerate action to combat climate change. Implementation of the plan is intended to guide the state's efforts going forward with an overall goal to increase the pace and scale of forest management and wildfire resilience efforts by 2025 and beyond. The plan contains four goals: Goal 1, to increase the pace and scale of forest health projects; Goal 2, to strengthen the protection of communities; Goal 3, to manage forests to achieve the state's economic and environmental goals; and Goal 4, to drive innovation and measure progress.

State of California Emergency Response Plan

Pursuant to the Emergency Services Act (Government Code Section 8550 et seq.), the California Office of Emergency Services (Cal OES) developed the *State of California Emergency Plan* (State Emergency Plan) to coordinate how emergency services are provided by federal, state, and local governmental agencies and private persons in response to natural and human-caused emergencies (Cal OES 2017). The State Emergency Plan recognizes that "climate impacts, including extreme weather events, sea level rise, changing temperature, precipitation patterns, and severe and frequent wildfires, present new risks that impact all phases of emergency management" and outlines how Cal OES coordinates the emergency responses of other agencies. For example, the Cal OES Fire and Rescue Branch coordinates all interregional and state agency activity related to mutual aid under the California Fire Service and Rescue Mutual Aid Plan; this mutual aid and multiagency coordination mitigates the effects of fire and other disasters, whether they are natural or human-caused (Cal OES 2019). The State Emergency Plan also defines the

“policies, concepts, and general protocols” for proper implementation of the California Standardized Emergency Management System, which agencies in California must follow during multiagency response efforts whenever state agencies are involved.

Fire Hazard Severity Zones

Public Resources Code Sections 4201 and 4204 and Government Code Chapter 6.8 (Sections 51175–51189) directed CAL FIRE to map FHSZs. The maps are divided into Local Responsibility Areas (LRAs) and State Responsibility Areas (SRAs). LRAs generally include cities, cultivated agriculture lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, and counties, and by CAL FIRE under contract to the local government.

California Public Resources Code

The Public Resources Code also includes fire safety regulations that apply to SRAs during the time of year designated as having hazardous fire conditions, i.e., “fire season.” During the fire hazard season, these regulations restrict the use of spark arrestors on equipment that has an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire-suppression equipment that must be provided on-site for various types of work in fire-prone areas.

Further, Public Resources Code Section 4291 provides that a person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining brush- or grass-covered lands or land that is covered with flammable material shall at all times maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line. In turn, Public Resources Code Sections 4292 and 4293 require that any person who owns, controls, operates, or maintains any electrical transmission or distribution line maintain a firebreak clearing around and adjacent to any pole, tower, or conductor that carries electric current as specified in the section.

Fire Protection in California Fire Code and Public Resources Code

The California Fire Code is contained within California Code of Regulations (CCR) Title 24, Chapter 9. Based on the International Fire Code, the California Fire Code is created by the California Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the California Fire Code and the California Building Code use a hazards classification system to determine the appropriate measures to incorporate to protect life and property. Section 1206 of the California Fire Code outlines provisions for applicable stationary and mobile energy storage systems, including threshold quantities.

The California Public Resources Code includes fire safety provisions that apply to either mountainous, forest, brush, and/or grass-covered lands that are deemed necessary by the director or agency with primary responsibility for fire protection in the area. During the fire hazard season, these regulations restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on equipment that has an internal combustion engine; specify

requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire-suppression equipment that must be provided on-site for various types of work in fire-prone areas.

Additional provisions in Public Resources Code Sections 4294–4296 require anyone who owns, controls, operates, or maintains an electrical transmission or distribution line on mountainous or forest-, brush-, or grass-covered land to maintain a firebreak clearing around and adjacent to any pole, tower, and conductors that carry electric current. Section 4292 requires Pacific Gas and Electric Company to maintain a 10-foot firebreak clearance around the base of a utility pole, with tree limbs within the 10-foot radius of the pole being removed up to 8 feet above ground. The state’s Fire Prevention Standards for Electric Utilities (14 CCR Sections 1250–1258) provide specific exemptions from clearance standards for electric poles, tower firebreaks, and electric conductors and specifies when and where the standards apply.

California Building Code

A subset of the California Building Code (24 CCR Part 2) is known as the California Fire Code. The Fire Code specifies construction standards to be used in urban interface and wildland areas where there is an elevated threat of fire.

Assembly Bill 747

AB 747 was adopted in 2019, and requires that safety elements be reviewed and updated as necessary to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. The law authorizes a city or county that has adopted a local hazard mitigation plan, emergency operations plan, or other document that fulfills commensurate goals and objectives to use that information in the safety element to comply with this requirement by summarizing and incorporating by reference that other plan or document in the safety element.

Regional and Local Laws, Regulations, and Policies

Los Angeles County Fire Department

2021 Los Angeles County Fire Department Strategic Plan

LA County is one of six contract counties that have executed a contract with the State of California to provide wildland fire protection on SRAs. LACoFD has the responsibility as part of a contract county to implement the State Strategic Fire Plan, and it functionally operates as a unit of CAL FIRE and is responsible for Strategic Fire Plan activities in Los Angeles County. The 2021 LACoFD Strategic Plan includes three goals: emergency operations, public service, and organizational effectiveness. The 2021 LACoFD Strategic Plan includes goals for LACoFD related to analyzing the threat of wildfire to communities in the wildland-urban interface; implementing fuel reduction projects; developing battalion specific asset maps, strategies, and tactics; and identifying fire prevention strategies that are consistent with LA County’s land use planning strategies. LACoFD also includes goals to support local Fire Safe Councils and to work with communities to develop community wildfire protection plans (LACoFD 2021).

Los Angeles County Fire Department Programs

LACoFD has adopted the California Fire Code for regulations and standards that are applied to new development in hazardous fire areas. These standards and requirements include the provision of access roads, adequate road widths, all-weather access, fire flow requirements, fire hydrant spacing, and vegetation clearance.

LA County Fire Code Sections 325.2.1.2, 328.10, 11117.2.1, and 4908.1 require that projects in areas located in VHFHSZs complete and seek approval of a land development plan and a fuel modification plan. The LA County Code also includes restrictions, permit requirements, and requirements for fire suppression equipment for activities and housing in fire-prone areas. The LA County Fire Code includes provisions for the use and storage of hazardous, flammable, and combustible material. It also includes fire safety requirements for construction and demolition, construction requirements for buildings, as well as requirements for land uses such as energy systems and biomass facilities.

LACoFD has instituted a variety of programs to reduce wildfire-related threats. These relate to pre-fire management and defensible space planning, vegetation management (focusing on the use of prescribed fire; hand crews; and mechanical, biological, and chemical means to address wildland fire fuel hazards in SRAs and LRAs) and brush clearance (Los Angeles County Chief Executive Office 2019; LACoFD 2022a), as well as fuel modification (Los Angeles County 2014). In addition to these programs, LACoFD and the LA County Department of Public Works enforce fire and building codes related to development in FHSZs. Further, LACoFD's Ready! Set! Go! program informs residents about how to create defensible space around homes, retrofit homes with fire-resistant materials, and prepare for evacuation in advance of a wildfire (LACoFD 2022b).

Los Angeles County Operational Area Emergency Response Plan

Adopted in 2012, the LA County Operational Area Emergency Response Plan (OAERP) identifies how the emergency response plan aligns with other local, state, and federal authorities. The plan identifies various emergency management phases and incident management systems, and identifies operational priorities. The purpose of the OAERP is to incorporate and coordinate all the facilities and personnel of LA County government, along with the jurisdictional resources of the cities and special districts within the County, into an efficient operational area organization capable of responding to any emergency using the California Standardized Emergency Management System, mutual aid, and other appropriate response procedures. The OAERP is an extension of the California Emergency Plan. The plan's operational concepts focus on large-scale disasters that have the potential to generate unique situations (Los Angeles County Chief Executive Office 2012).

Los Angeles County All-Hazards Mitigation Plan

LA County's All-Hazards Mitigation Plan was adopted in 2019 (Los Angeles County Chief Executive Office 2019). The plan includes risk assessments and hazard mitigation strategies for a variety of hazards including wildfire. It describes the fireproof coating of and provision of auxiliary power for critical assets; LA County's brush program, vegetation management program, and education and awareness programs to mitigate wildfire hazard risks; the Wildland Urban-

Interface Ordinance as a codification of development standards to guide development in wildland-urban interface areas; and various community wildfire protection plans to identify strategic sites and methods for fuel reduction projects across the landscape.

Los Angeles County 2035 General Plan

The Land Use Element of the General Plan (Los Angeles County 2015a) includes the following goals and policies that are relevant to the Project:

Goal LU 3: A development pattern that discourages sprawl, and protects and conserves areas with natural resources and SEAs [Significant Ecological Areas].

Policy LU 3.2: Discourage development in areas with high environmental resources and/or severe safety hazards.

Goal LU 11: Development that utilizes sustainable design techniques.

Policy LU 11.6: Ensure that subdivisions in VHFHSZs site open space to minimize fire risks, as feasible.

The Conservation and Natural Resources Element of the General Plan (Los Angeles County 2015b) includes the following goals and policies which are relevant to the Project:

Goal C/NR 3: Permanent, sustainable preservation of genetically and physically diverse biological resources and ecological systems including... woodlands.

Goal C/NR 4: Conserved and sustainably managed woodlands.

Policy C/NR 4.1: Preserve and restore oak woodlands and other native woodlands that are conserved in perpetuity with a goal of no net loss of existing woodlands.

Goal C/NR 13: Protected visual and scenic resources.

Policy C/NR 13.8: Manage development in HMAs [Hillside Management Areas] to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.

The Safety Element of the General Plan (Los Angeles County 2015c¹) includes the following goals and policies that are relevant to the Project:

Policy S 3.1: Discourage high density and intensity development in VHFHSZs.

Policy S 3.2: Consider climate change implications in planning for FHSZs.

Policy S 3.3: Ensure that the mitigation of fire related property damage and loss in FHSZs limits impacts to biological and other resources.

Policy S 3.4: Reduce the risk of wildland fire hazards through the use of regulations and performance standards, such as fire-resistant building materials and vegetation.

¹ On April 5, 2022, just before publication of this Draft EIR, the LA County Board of Supervisors approved a Safety Element Update, which will return to the Board of Supervisors in October 2022 for final adoption. The update includes several new policies that address wildfire (Los Angeles County 2022).

Policy S 3.5: Encourage the use of fire-resistant vegetation that is compatible with the area's natural vegetative habitats in fuel modification activities.

Policy S 3.6: Ensure adequate infrastructure, including ingress, egress, and peak load water supply availability for all projects located in FHSZs.

Policy S 3.7: Consider siting and design for developments located within FHSZs, particularly in areas located near ridgelines and on hilltops, to reduce the wildfire risk.

Policy S 3.8: Support the retrofitting of existing structures in FHSZs to help reduce the risk of structural and human loss due to wildfire.

Goal S 4: Effective County emergency response management capabilities.

Policy S 4.1: Ensure that residents are protected from the public health consequences of natural or manmade disasters through increased readiness and response capabilities, risk communication, and the dissemination of public information.

Policy S 4.2: Support County emergency providers in reaching their response time goals.

Policy S 4.3: Coordinate with other County and public agencies, such as transportation agencies, and health-care providers on emergency planning and response activities, and evacuation planning.

Policy S 4.4: Encourage the improvement of hazard prediction and early warning capabilities.

Policy S 4.5: Ensure that there are adequate resources, such as sheriff and fire services, for emergency response.

Policy S 4.6: Ensure that essential public facilities are maintained during natural disasters, such as flooding.

Safety Element Figure 12.6 shows LA County's designated Disaster Routes Map, which is consistent with the LA County Department of Public Works's Disaster Route maps for the north and south County areas (LA County DPW 2012a, 2012b).

Los Angeles County Code

Fire-related land use and building regulations are found throughout the LA County Code.

Examples include the following:

- **Title 32, Fire**, requires that defensible space be maintained around all buildings and structures in SRAs and within the Very High Fire Hazard Severity Zones of LRAs (Section 4907); requires fuel modification plans for projects in areas designated as FHSZs within SRAs or as VHFHSZs within LRA, identifying specific zones within properties where it is necessary to modify combustible native or ornamental vegetation or replace it with drought-tolerant, low-fuel-volume plants (Section 4908); and governs the clearance of brush and vegetative growth relative to electrical transmission lines, cables, and structures (Section 325). Title 32 also requires LACoFD approval for land development projects (Section 105.7.9.1) and land development plan review for projects located within VHFHSZs (Section 328.10).
- **Title 20, Utilities**, contains fire flow and fire hydrant requirements, including requirements applicable in VHFHSZs (Section 20.16.060).

- **Title 21, Subdivisions**, establishes access road requirements for fire equipment access and public evacuation (Chapter 21.24, Part 1); requires that storm drain, sewer, or fire access easement designations be noted on subdivision maps (Section 21.44.250); and governs fire-protection access easements (Section 21.24.220). These regulations are in place to ensure that adequate infrastructure, such as necessary disaster routes, are incorporated into new developments; however, older communities with aging and substandard infrastructure may face greater risks from wildland fires (Los Angeles County 2015c).
- **Title 26, Building**, includes requirements for buildings within a wildland-urban interface area (Chapter 7A).

3.18.2 Impact Analysis

3.18.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

Consistent with the CEQA Guidelines Appendix G Environmental Checklist and LA County practice, the Project would have a significant impact related to wildfire if located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, the Project would:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan;
- b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment;
- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes; or
- e) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

3.18.2.2 Methodology

As described in Chapter 2, *Project Description*, the Project is evaluated at a programmatic level and the analysis is based on information available to LA County where reasonably foreseeable direct and indirect physical changes in the environment could be considered. Wildfire impacts are evaluated with consideration of the existing regulations discussed in Section 3.18.1.3, *Regulatory Setting*, that address fire hazards and the effectiveness of standard wildfire risk abatement methods as they relate to the development of projects that could be facilitated by the Draft 2045 CAP measures and actions. The general rule employed in this analysis is that if wildfire risk can be effectively lessened through implementation of standard regulatory requirements (e.g.,

compliance with the LA County Fire Code, California Fire Code, California Building Code, other adopted plans), the impact would be less than significant. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.18.2.3 Project Impacts

Section 2.6.3 of Chapter 2, *Project Description*, provides a list of proposed GHG emissions reduction measures that would be implemented by the Draft 2045 CAP. None of the proposed measures indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by the Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic projects and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of wildfire impacts because they could worsen wildfire conditions. These and other relevant measures and actions include: Measure T1, Increase Density Near High-Quality Transit Areas; Measure T2, Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use; Measure T3, Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips; Measure T4, Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation; Measure ES2, Procure Zero-Carbon Electricity; Measure T6, Increase Zero-Emissions Vehicle Market Share and Reduce Gasoline and Diesel Fuel Sales; Measure T7, Electrify LA County Fleet Vehicles; Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment; Measure ES3, Increase Renewable Energy Production; Measure E1, Transition Existing Buildings to All-Electric; and Measure A1, Conserve Agricultural and Working Lands, Forest Lands, and Wildlands. Specific wildfire impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would substantially impair an adopted emergency response plan or emergency evacuation plan.

Impact 3.18-1: Projects facilitated by the Draft 2045 CAP would not substantially impair an adopted emergency response plan or emergency evacuation plan. (*Less than Significant with Mitigation Incorporated*)

The 2021 LACoFD Strategic Plan includes strategies to meet three overarching goals related to emergency operations, public services, and organizational effectiveness. Most of the strategies in

this plan are administrative in nature and aimed at building LACoFD's capacity to respond to hazards such as wildfires. The Draft 2045 CAP is a policy document and does not propose any specific projects that would conflict with the Strategic Plan (LACoFD 2018). All projects that would be facilitated by Draft 2045 CAP measures and actions would be required to be consistent with the 2021 LACoFD Strategic Plan and any future LACoFD emergency response or planning documents.

As described in Section 3.10, *Hazards and Hazardous Materials*, under criterion f), the Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. The Draft 2045 CAP does not include any specific projects or proposals that would directly conflict with adopted emergency response or emergency evacuation plans.

Neither the 2019 LA County All-Hazards Mitigation Plan nor the Topanga Community Wildland Fire Evacuation Plan includes specific evacuation routes to be used in the event of a wildfire emergency (Los Angeles County Chief Executive Office 2019). However, the LA County Department of Public Works maintains maps of primary freeway and secondary highway or arterial disaster routes, many of which cross through portions of the unincorporated County (LA County DPW 2012a, 2012b). Depending on their nature, projects that would be facilitated by the Draft 2045 CAP measures and actions may include activities that require construction or operation on major roadways or may require the closure of major roadways to facilitate construction activities. If construction activities within major roadways or road closures would be required to facilitate projects associated with the Draft 2045 CAP measures and actions, the activities could obstruct major roadways and could hinder evacuation procedures.

Some Draft 2045 CAP measures and actions could facilitate projects that could be located in SRAs or areas designated as FHSZs (e.g., new electric vehicle charging facilities, composting facilities, water recycling facilities, or renewable generation facilities). The locations and details of projects that would be facilitated by Draft 2045 CAP measures and actions are not known at the time of this analysis; however, construction of such projects could conflict with an emergency response or evacuation plan, which would be a significant impact.

To reduce this construction-related impact, LA County would implement Mitigation Measure 3.15-1 (identified in Section 3.15, *Transportation*), which requires project applicants and construction contractors to coordinate with relevant LA County departments and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on roadway operations, emergency responders, and public safety in the surrounding area.

Once operational, projects facilitated by Draft 2045 CAP measures and actions would be required to be consistent with the 2021 LACoFD Strategic Plan and any future LACoFD emergency response or planning documents. Once built, projects facilitated by the Draft 2045 CAP would not obstruct major roadways and so would not hinder emergency response or evacuation plan procedures.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: Implementation of the traffic control plan required by Mitigation Measure 3.15-1 would avoid or substantially reduce any potential impairment of an emergency response or evacuation plan that may result during construction activities associated with projects facilitated by the Draft 2045 CAP measures and actions. Because any impacts related to the implementation of an emergency response or evacuation plan would be identified and addressed before a related impact would occur, implementing this mitigation measure would reduce the impacts to a less-than-significant level.

Criterion b) Whether the Project would, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Impact 3.18-2: Projects facilitated by the Draft 2045 CAP would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and would not thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (*Less-than-Significant Impact*)

As described above, Los Angeles County is large, and the topography, vegetation, and climate vary across the County. Large portions of the undeveloped areas of the County (particularly in the Santa Monica Mountains, Santa Clarita Valley, and Antelope Valley) include coastal sage, riparian oak woodland, and chaparral vegetation types. Oak woodlands, which are protected by policies in the General Plan's Conservation and Natural Resources elements, play an important role in reducing the risk of wildfires because the native understory of oak woodlands typically contains less flammable vegetation than other types of trees, and because oak trees are harder to ignite and not as prone to rapid combustion. Oak stands that are well maintained prevent slope failure, reduce erosion, and can slow down a wildfire. Fire risk in the County is particularly high in the undeveloped areas designated as VHFHSZs. These areas typically contain chaparral ecosystems, which contain volatile oils that are particularly flammable. Additionally, chaparral communities are typically located in mountainous areas where the steep terrain can fuel the spread of wildfire (LACoFD 2021).

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. The Draft 2045 CAP does not include any specific projects that could directly expose structures or occupants to wildfire risks; however, new projects facilitated by Draft 2045 CAP measures and actions could increase wildfire-related risks including in SRAs or FHSZs.

Structure fires are the second largest source of ignitions in the County. Draft 2045 CAP Strategies 5 and 6 would encourage the electrification of buildings, reduction of the use of natural gas, and retrofitting of buildings to be more energy efficient. Implementing these measures would help to update the electric and gas systems of existing buildings and reduce the number of ignitions resulting from structure fires. Additionally, some measures included in the Draft 2045 CAP, such as Measures T4, T6, T7, and T9, would expand the use of electric vehicles and reduce the use of internal combustion engines. In particular, Measure T9 would reduce the use of internal combustion

engines for off-road vehicles and equipment. As mentioned above, ignitions from vehicles resulted in the third largest source of ignitions in the County. Therefore, by reducing the use of internal combustion engines, which could result in sparks leading to ignitions, implementation of the Draft 2045 measures and actions would likely aid in reducing ignitions that could lead to the spread of wildfire.

Finally, in recent years, fire conditions in California have been worsened by a historic practice of suppressing fires. Because many ecosystems in California and Los Angeles County require fire, the suppression of fire in forests and ecosystems has resulted in the buildup of fuels and in high-severity burns that result in severe damage to ecosystems, landscapes, and human communities. Measure A1 encourages the conservation and restoration of forest lands in the County. The restoration and preservation of forest lands within Los Angeles County would aid in restoring ecosystem function in forests in the County. If restoration projects facilitated by Measure A1 were to include vegetation management or fuel treatments to remove nonnative species and reduce fuel loads in forests, this measure would improve fuel conditions in forests in the County and would result in beneficial impacts related to wildfire.

Projects facilitated by the Draft 2045 CAP measures and actions that could include housing would likely be provided in urban areas that are already developed, and not in undeveloped areas with high fire risk, as such projects are intended to increase density near high quality transit areas and mixed-use areas to reduce vehicle miles traveled. Additionally, the General Plan includes policies to discourage development in areas with safety hazards such as wildfire risks. Therefore, to accomplish the goals of the Draft 2045 CAP and be consistent with the General Plan, projects facilitated by the Draft 2045 CAP measures and actions that would include housing would likely be built in urban infill areas. These projects are not likely to exacerbate wildfire risks, and thus would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

The Draft 2045 CAP measures and actions could facilitate projects that could be located in areas designated as FHSZs or SRAs (e.g., new electric vehicle charging facilities, composting facilities, water recycling facilities, or renewable generation facilities). Depending on the location and site-specific conditions of future projects, such projects could increase the risk of an ignition during construction as a result of the use of equipment, vehicles, and tools and the storage of fuels and other flammable materials.

However, any future projects with occupants would be required to comply with Title 32 of the LA County Code (the LA County Fire Code). Compliance with the LA County Fire Code would ensure that any new development in the unincorporated areas of the County would occur in an area with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet flow standards (in the event that a fire needs to be extinguished). Compliance with the LA County Fire Code would also ensure that developments within mapped VHFHSZs are properly inspected, obtain the applicable permits, and abide by fire prevention techniques. The operation of most facilities facilitated by Draft 2045 CAP measures and actions would not substantially increase wildfire risk due to slope, prevailing winds, and other factors, because projects would be required to comply with the California Building Code, which identifies building fire safety

requirements such as sprinklers, resistance standards, and the clearance of debris and vegetation within a prescribed distance from structures in wildfire hazard areas.

Furthermore, future projects facilitated by Draft 2045 CAP measures and actions would be required to comply with the following General Plan policies, which are intended to reduce the potential for development to be located in high fire hazard areas and encourage mitigation to ensure that developments are built to be fire resistant and have the capacity to ensure proper ingress, egress, and sufficient fire suppression resources onsite:

Policy S 3.1: Discourage high density and intensity development in VHFHSZs.

Policy S 3.2: Consider climate change implications in planning for FHSZs.

Policy S 3.3: Ensure that the mitigation of fire related property damage and loss in FHSZs limits impacts to biological and other resources.

Policy S 3.4: Reduce the risk of wildland fire hazards through the use of regulations and performance standards, such as fire-resistant building materials and vegetation.

Policy S 3.5: Encourage the use of fire-resistant vegetation that is compatible with the area's natural vegetative habitats in fuel modification activities.

Policy S 3.6: Ensure adequate infrastructure, including ingress, egress, and peak load water supply availability for all projects located in FHSZs.

Policy S 3.7: Consider siting and design for developments located within FHSZs, particularly in areas located near ridgelines and on hilltops, to reduce the wildfire risk.

Policy S 3.8: Support the retrofitting of existing structures in FHSZs to help reduce the risk of structural and human loss due to wildfire.

Compliance with the LA County Fire Code, California Building Code, and the General Plan would reduce the risk that future projects facilitated by the Draft 2045 CAP measures and actions would occur in fire-prone areas and would ensure that projects contain proper fire prevention measures and capacity for fire suppression during construction and operation. Compliance with these codes and policies would significantly reduce the risks of wildfires from projects facilitated by the Draft 2045 CAP measures and actions that could expose project occupants to the risks from the spread of wildfire. Requisite compliance with the independently enforceable provisions of laws, regulations, plans and standards (including those set forth in the LA County Fire Code, California Building Code, and the General Plan) would assure that the Draft 2045 CAP would result in a less-than-significant impact related to the exposure of project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Mitigation Measure 3.18-3 would further reduce this less-than-significant impact.

Mitigation: None required.

Criterion c) Whether the Project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

Impact 3.18-3: Projects facilitated by the Draft 2045 CAP could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or may result in temporary or ongoing impacts on the environment. (*Less than Significant with Mitigation Incorporated*)

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. The Draft 2045 CAP does not include any specific project proposal, and therefore would not result in any direct increases in wildfire risk associated with the installation or maintenance of infrastructure. Individual projects facilitated by Draft 2045 CAP measures and actions could require fuel breaks, emergency water sources, composting facilities, power lines, or other associated infrastructure that could exacerbate fire hazard risk or may result in temporary or ongoing impacts on the environment, which would be a significant impact.

To reduce this impact, LA County would implement Mitigation Measure 3.18-3, which would require project applicants to prepare a fire prevention plan to ensure that wildland fire-related hazards would not be exacerbated by installation or maintenance of infrastructure associated with future projects facilitated by the Draft 2045 CAP measures and actions that may exacerbate fire risk or may result in temporary or ongoing impacts on the environment.

Projects facilitated by Draft 2045 CAP measures and actions may also include development of utility-grade lithium ion battery storage facilities, e.g., for utility-scale solar projects in the Antelope Valley. If the battery storage is not properly designed, lithium ion batteries could heat to the point of thermal runaway (i.e., failure of a single cell within the system, cascading into a fire and explosion). This technology requires cooling of the battery components (cells/modules). Based on a range of utility-grade battery storage alternatives evaluated for a recent power line and substation project in Southern California (CPUC 2018), cooling of the battery components would be required by maintaining the battery enclosure room temperature within a specific temperature range (around 68 degrees Fahrenheit) using traditional air conditioner units (compressor-based refrigerant systems). The battery enclosures would provide an additional level of protection by providing containment in the event of a fire. Features such as electronic monitoring systems, alarms, and circuit breakers would likely be incorporated into the design to lower the possibility of a thermal runaway chain reaction and an associated significant hazard to the public or the environment due to a reasonably foreseeable upset. However, if these features were not proposed as part of a battery storage facility, wildland fire impacts could be significant. Implementation of Mitigation Measure 3.18-3 would ensure that impacts associated with wildland fire hazards during operation of a utility-grade battery storage facility would be less than significant.

In addition to any project-specific fire-related mitigation recommendations, any new development within Los Angeles County (including the unincorporated areas) would be subject to Title 32 of the LA County Code (the LA County Fire Code). Compliance with the LA County Fire Code would ensure that any new development in the unincorporated areas of the County would occur in an area with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet flow standards (in the event that a fire needs to be extinguished). Compliance with the LA County Fire Code would also ensure that developments within mapped VHFHSZs and SRAs are properly inspected, obtain the applicable permits, and abide by fire prevention techniques.

Mitigation Measure 3.18-3: Fire Safety. Future applicants and/or their contractors shall prepare and implement project-specific fire prevention plans to ensure that fire-related hazards are not exacerbated by projects facilitated by the Draft 2045 CAP measures or goals that would occur within fire hazard severity zones. The fire prevention plans shall include the requirements listed below.

Before construction, the applicant shall contact and consult with LACoFD and CAL FIRE to determine the appropriate amounts of fire prevention and suppression equipment to be carried on the construction vehicles and appropriate prevention measures to be taken during construction. The applicant shall submit verification of its consultation with LACoFD and CAL FIRE to LA County. The applicant shall submit the fire prevention plan to LA County for review and approval 60 days before the start of construction activities and shall make the approved plan available to all construction and operation crew members before construction and operation of the project, respectively. The fire prevention plan shall list fire safety measures for construction and operation including fire prevention and extinguishment procedures, as well as specific emergency response and evacuation measures that would be followed during emergency situations; examples are listed below. The plan also shall provide fire-related rules for smoking, storage, and parking areas; usage of spark arrestors on construction equipment; and fire-suppression tools and equipment. The fire prevention plan shall include or require, but not be limited to, the following measures, as applicable:

- The applicant and/or its contractors shall have water tanks, water trucks, or portable water backpacks (where space or access for a water truck or water tank is limited) sited/available in the study area for fire protection during construction.
- All construction vehicles shall have fire suppression equipment.
- The applicant shall ensure that all construction workers receive training on the proper use of firefighting equipment and procedures to be followed in the event of a fire.
- Because construction may occur simultaneously at several locations, each construction site shall be equipped with fire extinguishers and firefighting equipment sufficient to extinguish small fires.
- The applicant shall instruct construction personnel to park vehicles within roads, road shoulders, graveled areas, and/or cleared areas (i.e., away from dry vegetation) wherever such surfaces are present at the construction site.
- The applicant and its contractor shall cease construction work during Red Flag Warning events in areas where vegetation would be susceptible to accidental ignition by project activities (such as welding or use of equipment that could create a spark).

- At each construction site, after construction has been completed for the day, the project contractor and/or the applicant shall perform visual inspections to ensure that all ignition risks are reduced or eliminated before leaving the worksite.
- The fire prevention plan shall include a section dedicated to fire safety and prevention for project operations. The section shall identify state-of-the-art fire safety and prevention measures for project-related infrastructure that can ignite fires, such as power lines, battery storage facilities, and composting facilities. Fire safety and prevention measures shall include preventive measures such as monitoring systems (both electronic and manual) and alarms, cooling systems, and circuit breakers, where applicable, as well as fire suppression measures, such as requirements for enclosures, and fire extinguishers and firefighting equipment to be maintained on-site and/or within maintenance vehicles.

Successful implementation of this mitigation measure shall be demonstrated by the development of a fire prevention plan, in consultation with local fire authorities, that is documented and submitted to LA County for final approval. Additionally, successful implementation requires that the applicant and its contractor comply with all components of the fire prevention plan, that ignition from project construction and operational activities is promptly reported to the fire department(s) with jurisdiction, and that when it is safe to do so, any project-caused ignition is suppressed immediately.

Significance after Mitigation: Implementation of Mitigation Measure 3.18-3 would ensure that the risk of fire from infrastructure associated with projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD and CAL FIRE, and that the applicant and its contractors would implement fire safety measures to prevent wildland fire and would be prepared to respond immediately if a fire should ignite. Therefore, this impact would be reduced to a less-than-significant level.

Criterion d) Whether the Project would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Impact 3.18-4: Projects facilitated by the Draft 2045 CAP would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (*Less-than-Significant Impact*)

As described under criterion b), the portions of the County that are designated as FHSZs are characterized by steep slopes that could expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Also, as further described under criterion b), the Draft 2045 CAP would not directly result in any projects that would increase wildfire risk or alter slopes or drainage patterns in a manner that would increase the risk for post-fire downslope or downstream flooding or landslides. However, some projects facilitated by the Draft 2045 CAP measures and actions, depending on their locations and site-specific conditions, could increase the risk of wildfire and could expose people or structures to downslope or downstream flooding, post-fire flooding, or landslides.

Many projects facilitated by Draft 2045 CAP measures and actions would involve retrofitting of existing buildings or the construction of housing, charging facilities, etc., that would generally be located in developed urban environments, and not on lands with a high wildfire risk. However, the Draft 2045 CAP measures and actions could facilitate projects that could be located in areas designated as FHSZs (e.g., new electric vehicle charging facilities, composting facilities with large mulch berms for decomposition, water recycling facilities, or renewable generation facilities). As described above, all new development is required to comply with the LA County Fire Code, California Building Code, and General Plan policies, reducing the extent to which future projects would expose people or structures to post-fire slope instability risk. As discussed in Section 3.8, *Geology and Soils* (under criterion a), subpart iv), and under criterion c)), if projects facilitated by Draft 2045 CAP measures and actions were proposed in susceptible areas, required geotechnical design criteria would be incorporated into geotechnical reviews to verify the stability of nearby slopes and soils, and to provide recommendations intended to protect developments from causing or being affected by landslides, as required by existing regulations. Therefore, future projects and associated infrastructure facilitated by the Draft 2045 CAP measures and actions would have less-than-significant impacts related to downstream flooding or landslides.

Requisite compliance with applicable laws, regulations, and ordinances would assure that projects implementing Draft 2045 CAP measures and actions would result in a less-than-significant impact.

Mitigation: None required.

Criterion e) Whether the Project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Impact 3.18-5: Projects facilitated by the Draft 2045 CAP could expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. (*Less than Significant with Mitigation Incorporated*)

According to fire hazard mapping conducted by CAL FIRE as part of the Fire and Resource Assessment Program, several areas of the unincorporated County are classified as VHFHSZs (CAL FIRE 2012). The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. The Draft 2045 CAP does not include any specific projects that would directly expose structures or occupants to a significant risk of loss, injury, or death involving wildland fires.

As described under criterion b), new development would be required to comply with the LA County Fire Code, the California Building Code, and policies in the General Plan requiring that fire prevention measures be incorporated into development and that developments include proper ingress, egress, and equipment to respond to fire hazards. Compliance with these requirements would ensure that any new development in the unincorporated areas of the County

would occur in an area with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet flow standards (in the event that a fire needs to be extinguished).

Projects that would be facilitated by the Draft 2045 CAP measures and actions may involve composting facilities, water recycling facilities, or renewable energy generation facilities, which could be located in areas designated as FHSZs. Depending on the location and site-specific conditions, such future projects and associated infrastructure could increase the risk of an ignition during construction and operation that could exacerbate wildland fire hazards, which would be a significant impact.

To reduce this impact, LA County would implement Mitigation Measure 3.18-3 (identified above), which requires project applicants to prepare a fire prevention plan to ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by the Draft 2045 CAP measures and actions.

Mitigation: Implement Mitigation Measure 3.18-3.

Significance after Mitigation: Implementation of Mitigation Measure 3.18-3 would ensure that the risks of fire from projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD and CAL FIRE, and that the applicant and its contractors would implement fire safety measures to prevent wildland fire and would be prepared to respond immediately if a fire should ignite. Therefore, this impact would be reduced to a less-than-significant level.

3.18.2.4 Cumulative Impacts

The geographic scope for cumulative impacts related to wildfire consists of the areas within or adjacent to the County that have been mapped by CAL FIRE as Very High, High, and Moderate FHSZs, and SRAs. As identified in Section 3.18.1.2, *Environmental Setting*, the increasing severity of wildfires across the state and in the unincorporated areas of the County has demonstrated that there is an existing adverse condition with respect to wildfires. This is due in part to increasingly drier conditions caused by recent droughts, and is also driven by increased development in the wildland-urban interface and historic fire suppression in forests, which has led to a disrupted fire regime.

Criterion a)

Impact 3.18-6: Projects facilitated by the Draft 2045 CAP could result in significant cumulative impacts with regard to impairing an adopted emergency response plan or emergency evacuation plan. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

Significant cumulative impacts related to implementation of an emergency response plan or emergency evacuation plan could occur if construction activities for projects facilitated by Draft 2045 measures and actions would cause road closures or impacts on major roadways, that would then combine with similar impacts from the construction of other past, present, and reasonably foreseeable future projects. The locations and details of projects facilitated by Draft 2045

measures and actions are unknown at this time; however, as analyzed in Section 3.18.2.3 under criterion a), such projects could conflict with an emergency response or evacuation plan.

If construction of other past, present, and/or reasonably foreseeable future projects that would affect major roadways were to occur in the same vicinity and time as the projects facilitated by Draft 2045 measures and actions, the cumulative impact could be significant, and the Project's contribution would be cumulatively considerable.

To reduce the Project's contribution to the significant cumulative impact, LA County would implement Mitigation Measure 3.15-1 (identified above). This measure requires applicants and construction contractors for projects facilitated by Draft 2045 measures and actions to coordinate with relevant LA County departments and emergency service providers to develop a traffic control plan to reduce impacts of construction traffic on roadway operations, emergency responders, and public safety in the surrounding area.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: The traffic control plan required by Mitigation Measure 3.15-1 would avoid or substantially reduce the contribution of projects facilitated by the Draft 2045 CAP measures and actions to impairment of an emergency response or evacuation plan to less than cumulatively considerable. The cumulative impact on emergency access and emergency response would be reduced to a less-than-cumulatively considerable and therefore less-than-significant level.

Criterion b)

Impact 3.18-7: Projects facilitated by the Draft 2045 CAP would not, due to slope, prevailing winds, and other factors, exacerbate cumulative wildfire risks, and would not thereby expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (*Less-than-Significant Cumulative Impact*)

As analyzed in Section 3.18.2.3 under criterion b), the implementation of Draft 2045 CAP measures and actions would result in a less-than-significant impact with regard to exacerbating wildfire risks due to slope, prevailing winds, and other factors that would thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Some Draft 2045 CAP measures are likely to improve adverse wildfire conditions in the County by restoring forest lands and reducing ignition sources.

Projects facilitated by the Draft 2045 CAP measures and actions that could include housing would likely be developed in urban areas that are already developed, and not in undeveloped areas with high fire risk, as such projects are intended to increase density near high quality transit areas and mixed-use areas to reduce vehicle miles traveled. Additionally, the General Plan includes policies to discourage development in areas with safety hazards such as wildfire risks. Therefore, to accomplish the goals of the Draft 2045 CAP and be consistent with the General Plan, projects facilitated by the Draft 2045 CAP measures and actions that would include housing would likely be built in urban infill areas. These projects would not likely exacerbate wildfire risks, and thus would not expose project occupants to pollutant concentrations from a wildfire or

the uncontrolled spread of a wildfire. For discussions of cumulative impacts related to specific types of uninhabited project infrastructure that may exacerbate fire risks, see Impacts 3.18-8 and 3.18-10.

Similarly, all other development, including past, present, and future projects, would be required to comply with these policies and regulations protecting project occupants from wildfire hazards. Such compliance would ensure that proper fire safety measures would be employed during project construction; that sufficient ingress, egress, and wildfire suppression equipment would be present on-site; and that building materials and design, landscape design, and vegetation management would be sufficient to reduce the risk of wildfire to project occupants. Therefore, cumulative impacts would not be significant, and impacts of the Draft 2045 CAP measures and actions would not be cumulatively considerable, and therefore would be in less-than-significant. Mitigation Measure 3.18-3 would further reduce this impact.

Mitigation: None required.

Criterion c)

Impact 3.18-8: Projects facilitated by the Draft 2045 CAP could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing cumulative impacts on the environment. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

A cumulative impact relative to this criterion could result if a project implementing Draft 2045 CAP measures and actions would require additional infrastructure (e.g., fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that would be located in areas designated as FHSZs near another adjacent project that also requires such infrastructure. As analyzed in Section 3.18.2.3 under criterion c), such infrastructure could exacerbate fire risk if located in areas designated as FHSZs and SRAs. If construction of other past, present, and/or reasonably foreseeable future projects would include similar infrastructure that could exacerbate fire risk in areas designated as FHSZs and SRAs, the cumulative impact could be significant.

To reduce the Project's contribution to the significant cumulative impact, LA County would implement Mitigation Measure 3.18-3 (identified above), which requires applicants and construction contractors for projects facilitated by Draft 2045 measures and actions to prepare a fire prevention plan to ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by the Draft 2045 CAP measures and actions.

Mitigation: Implement Mitigation Measure 3.18-3.

Significance after Mitigation: Implementation of Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD and CAL FIRE, fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. This measure would reduce the

contribution of projects facilitated by Draft 2045 CAP measures and actions to a less-than-cumulatively considerable, and therefore to a less-than-significant level.

Criterion d)

Impact 3.18-9: Projects facilitated by the Draft 2045 CAP would not expose people or structures, either directly or indirectly, to significant cumulative risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (*Less-than-Significant Cumulative Impact*)

A cumulative impact could occur if projects facilitated by Draft 2045 CAP measures and actions would result in changes to post-fire slope stability or drainage patterns that could combine with similar impacts from nearby past, present, and future cumulative projects and could expose people or structures to risks as a result of runoff, post-fire landslides, or flooding. As described in Section 3.18.2.3 under criterion d), the Draft 2045 CAP would have a less-than-significant impact with respect to this criterion.

The locations and designs of individual projects that would facilitate the Draft 2045 CAP measures and actions are not known at this time. In general, future projects would be required to comply with the General Plan, which requires avoiding development in areas with safety hazards such as wildfire, landslide, and flooding risks, and on hillsides. Additionally, most projects facilitated by the Draft 2045 CAP measures and actions would involve retrofitting of existing buildings or development in urban areas and would not alter wildfire risk, slopes, or existing drainage patterns in a manner that would affect post-fire floods or landslides.

However, the Draft 2045 CAP measures and actions could facilitate projects that could be located in areas designated as FHSZs (e.g., new electric vehicle charging facilities, composting facilities, water recycling facilities, or renewable generation facilities). As described in Section 3.18.2.3 under criterion d), all new development is required to comply with the LA County Fire Code, California Building Code, and General Plan policies, reducing the extent to which future projects would expose people or structures to post-fire slope instability risk. Additionally, as discussed in Section 3.8, *Geology and Soils* (under criterion a), subpart iv), and under criterion c)), if projects facilitated by Draft 2045 CAP measures and actions were proposed in susceptible areas, required geotechnical design criteria would be incorporated into required geotechnical reviews to verify the stability of nearby slopes and soils, and to provide recommendations intended to protect developments from causing or being affected by landslides.

Similarly, all other development, including past, present, and future projects, must comply with state and LA County fire codes, and the California Building Code. Compliance with these independently enforceable requirements would ensure that cumulative impacts would not be significant, and that impacts of Draft 2045 CAP measures and actions would not be cumulatively considerable and would result in a less-than-significant cumulative impact with respect to this criterion. Therefore, future projects and associated infrastructure facilitated by the Draft 2045 CAP measures and actions would have less-than-significant impacts associated with downstream flooding or landslides.

Mitigation: None required.

Criterion e)**Impact 3.18-10: Projects facilitated by the Draft 2045 CAP could expose people or structures, either directly or indirectly, to a significant cumulative risk of loss, injury, or death involving wildland fires. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)**

A cumulative impact could occur if projects facilitated by Draft 2045 CAP measures and actions would result in a risk of loss, injury, or death involving wildland fires that could combine with similar impacts from nearby past, present, and future cumulative projects. Projects facilitated by Draft 2045 CAP measures and actions may involve composting facilities, water recycling facilities, or renewable energy generation facilities located in areas designated as FHSZs. Depending on site-specific locations and conditions, such future projects and associated infrastructure, combined with other nearby similar past, present, and future cumulative projects, could increase the risk of an ignition during construction and operation, thus potentially exacerbating wildland fire hazards, which would be a significant cumulative impact.

To reduce this impact, LA County would implement Mitigation Measure 3.18-3 (identified above), which requires project applicants to prepare a fire prevention plan to ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by the Draft 2045 CAP measures and actions.

Mitigation: Implement Mitigation Measure 3.18-3.

Significance after Mitigation: Implementation of Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD and CAL FIRE, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. This measure would reduce the Project's incremental contribution to the cumulative impact to less than cumulatively considerable, and this cumulative impact would be reduced to a less-than-significant level.

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CHAPTER 4

Alternatives

4.1 Introduction to Alternatives

CEQA requires a lead agency to analyze a reasonable range of alternatives to a proposed project that could feasibly attain most of the basic objectives of the project while substantially reducing or eliminating significant environmental impacts. CEQA also requires an EIR to evaluate a “no project” alternative to allow decision-makers to compare impacts of approving a project with the impacts of not approving it. See CEQA Guidelines Section 15126.6. This chapter describes the key considerations used to identify and screen potential alternatives, explains why some potential alternatives were eliminated from further consideration, and describes the alternatives that were carried forward for more detailed analysis.

This chapter also compares the environmental impacts of the Project and alternatives evaluated in detail. This comparison is based on the analysis of environmental impacts of the Project, provided in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, and the alternatives that were carried forward for more detailed review in this Chapter 4.

4.2 Alternatives Development and Screening

LA County screened and thereafter selected alternatives to be discussed based on the following key provisions of the CEQA Guidelines (California Code of Regulations Title 14, Section 15126.6):

- The discussion of alternatives shall consider a reasonable range of potentially feasible alternatives to the proposed project or its location that are capable of avoiding or substantially lessening any significant impacts of the proposed project, even if these alternatives would impede to some degree the attainment of the proposed project objectives, or would be costlier.
- The No Project Alternative shall be evaluated, along with its impacts. The no project analysis shall discuss the existing conditions at the time the notice of preparation was published, as well as what would be reasonably expected to occur in the foreseeable future if the proposed project were not approved, based on current plans and consistent with available infrastructure and community services.
- The range of alternatives required in an EIR is governed by a “rule of reason,” meaning the EIR must evaluate only those alternatives necessary to permit a reasoned choice.
- An EIR need not consider an alternative whose impacts cannot be reasonably ascertained and whose implementation is remote and speculative.

Among the factors that may be considered in determining whether to carry a potential alternative forward for more detailed consideration in an EIR are:

1. Whether the alternative would meet most of the basic project objectives. Section 2.3.1, *Project Purpose and Objectives*, in Chapter 2 identifies five Project objectives. Any alternative determined not to meet at least three of the five objectives was not carried forward for more detailed review.
2. Whether the alternative would be potentially feasible, where *feasible* means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (Public Resources Code Section 21061.1; CEQA Guidelines Sections 15126.6 and 15364).¹ Any alternative determined to be infeasible was not carried forward for more detailed review.
3. Whether the alternative would be able to avoid or substantially lessen any of the potentially significant impacts of the project. Significant impacts of the Project are identified in Chapter 3. Any alternative determined not to avoid or substantially lessen the significant impacts of the Project was not carried forward for more detailed review.
4. Whether implementation of the alternative is remote or speculative. For purposes of this analysis, *remote* means unlikely or having only a slight chance of occurring, and *speculative* means unsupported, theoretical, or based on conjecture or guesswork. Any potential alternative determined to be remote or speculative was not carried forward for more detailed review.

In addition to these screening criteria, LA County considered input received during the scoping period for the EIR as part of the alternatives development process. Written and oral comments from agencies, organizations, and the public were received during the scoping period.

Appendix A.5, *Scoping Input Received*, includes all comments received during the scoping period. Comments relevant to alternatives suggest that the EIR consider a No Project alternative and an alternative that would achieve 100 percent decarbonization (i.e., carbon neutrality), include a more aggressive timeline to achieve carbon neutrality, comply with current regulations but go no farther, and/or consider the feasibility of zero emissions for many sectors rather than carbon neutrality. Scoping comments also suggest that the EIR consider an alternative that would avoid impacts on aquatic and riparian resources (e.g., one that would not impede, alter, or otherwise modify existing surface flow, watercourse and meander, and water-dependent ecosystems and natural communities and that considers elevated crossings of watercourses).

Informed by and in response to the scoping input received, this EIR initially considered a Carbon Neutrality by 2045 Alternative (see Section 4.3.1); a More Aggressive Timeline to Carbon Neutrality Alternative (see Section 4.3.2); a Minimize Loss of Carbon Sequestration Caused by Development Alternative (see Section 4.3.3); a Substantially Reduced Vehicle Miles Traveled Alternative (see Section 4.3.4); and an Aquatic Impact Avoidance Alternative (see Section 4.3.5). The EIR also evaluates a No Project Alternative (see Section 4.4.1), a Carbon Offset Alternative (Alternative 1; see Section 4.4.2), and a Zero Net Energy Buildings Alternative (Alternative 2; see Section 4.4.3).

¹ A sufficient demonstration of financial infeasibility requires more than a showing that the alternative would be more expensive or less profitable; it requires evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project. *Citizens of Goleta Valley* (1998) 197 Cal. App. 3d. 1167, 1181.

4.3 Alternatives Rejected from Detailed Consideration

4.3.1 Carbon Neutrality Target by 2045

Successful implementation of the Draft 2045 CAP's greenhouse gas (GHG) emissions reduction strategies and measures would not be enough for the County to achieve carbon neutrality by 2045. In the year 2045, residual emissions of more than 1.2 million metric tons of carbon dioxide equivalent (MTCO_{2e}) would still be originating from the following sources:

- Buildings and energy industries that could reduce but not eliminate natural gas (approximately 315,000 MTCO_{2e}).
- Light-duty vehicles and heavy-duty trucks (approximately 300,000 MTCO_{2e}).
- Fluorinated products/product use (approximately 285,000 MTCO_{2e}).
- Solid waste disposal (approximately 236,000 MTCO_{2e}).
- Wastewater treatment (approximately 73,000 MTCO_{2e}).
- Miscellaneous other sources (approximately 32,000 MTCO_{2e}).
- Off-road equipment (approximately 24,000 MTCO_{2e}).
- Fertilizer use (approximately 20,000 MTCO_{2e}).

See page 3-5 and Figure 3-1 of the Draft 2045 CAP.

LA County expects that new technologies that would further reduce these residual emissions would be established and become more commercially available over the next 25 years. However, such technological advancements necessary to achieve a target of carbon neutrality by 2045 are not currently available, and it would be speculative to assume that they would become available within the next 25 years. Therefore, the impacts cannot be reasonably ascertained at this stage. Such technologies may include reliable renewable energy sources for industrial and manufacturing facilities; low-cost, scalable zero-emission engine technology for heavy-duty trucks and off-road equipment; feasible strategies for obtaining zero-waste landfilling; widespread distribution and use of low-global-warming-potential refrigerants and consumer products; and large-scale, cost-effective carbon removal technologies, including carbon capture and sequestration and direct air capture. To obtain carbon neutrality by 2045, it is expected that the following actions would need to occur:

- Electrifying 100 percent of buildings and facilities in the County, including residential, commercial, industrial, and energy industries.
- Achieving zero (or near-zero) waste landfilling.
- Having more than 95 percent of the Countywide vehicle fleet, including light-duty passenger vehicles and heavy-duty trucks, be zero-emission vehicles.
- Eliminating all oil and natural gas operations in the County.
- Transitioning all refrigerants, fire suppressants, and consumer products used within the County to substitutes with extremely low (or zero) global warming potential.

- Replacing all off-road equipment and off-road vehicles (including locomotives) with electric, green hydrogen, or other zero-emission engine technologies.
- Capturing nearly all fugitive wastewater treatment process emissions and converting to fuel.
- Eliminating nitrous oxide emissions from fertilizer application.
- Implementing carbon removal and/or carbon capture and sequestration strategies to offset all remaining residual emissions.

What would be required to achieve a target of carbon neutrality by 2045 would be beyond what LA County alone could implement, and it would be speculative to assume that technological advancements to achieve carbon neutrality would become available within the next 25 years. Accordingly, a Carbon Neutrality Target by 2045 Alternative was not carried forward for more detailed evaluation because it is speculative and potentially infeasible: There is no present basis to assume that it could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

4.3.2 More Aggressive Timeline to Carbon Neutrality

As discussed in Section 4.3.1, an alternative that would achieve carbon neutrality by 2045 was not carried forward for more detailed evaluation because it is speculative and currently infeasible: There is no present basis to assume that it could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. An even more aggressive timeline to achieving carbon neutrality than 2045 also was not carried forward for more detailed review because it would be even more speculative to assume that the technological advancements needed to achieve carbon neutrality, in addition to those identified above, would become available in time.

4.3.3 Minimize Loss of Carbon Sequestration Caused by Development

Under a Minimize Loss of Carbon Sequestration Caused by Development Alternative, LA County would reduce the generation of GHG emissions by enacting a moratorium on new development or other disturbance of areas of existing high carbon sequestration capacity in unincorporated areas of the County, thereby avoiding releases of carbon currently sequestered in such areas back into the atmosphere. Country.

Commercial and residential development contributed approximately 13 percent of total U.S. GHG emissions by sector in 2020 (U.S. EPA 2022b). Between 1982 and 2017, urban land cover in the United States from development grew by approximately 44 million acres, bringing the total to approximately 116 million acres and representing a 61 percent increase; stated another way, 38 percent of developed land in the country (including Puerto Rico and the Virgin Islands) was developed during the last 35 years (USDA 2020). By contrast, forests, other vegetation, and soils store (or “sequester”) carbon. These carbon stores are at risk because of the conversion of sequestration lands to other uses. As explained in a U.S. Department of Agriculture report entitled *United States Mid-Century Strategy for Deep Decarbonization*, “The largest driver of forest loss in the United States in recent decades has been residential development” (USDA 2016).

One way to expand carbon sequestration is to directly control land use via regulation: USDA projections indicate that reducing the rate of development-related conversion of urbanization could lead to large carbon storage benefits (USDA 2016). For example, a 20 percent reduction in urban growth over the next 30 years is projected to augment carbon storage by about 40 million MTCO_{2e} per year through 2050, while avoiding the loss of existing forest carbon stock (USDA 2016).

This potential alternative was not carried forward because it would not meet most of the basic Project objectives. More specifically, a Minimize Loss of Carbon Sequestration Caused by Development Alternative would not implement the climate action policies of the General Plan (Objective 1); would not encourage sustainable housing production (Objective 4); and would not demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (“qualified CAP”) (Objective 5).

The Minimize Loss of Carbon Sequestration Caused by Development Alternative has also been rejected from more detailed consideration because it is legally infeasible: it would not permit LA County to fully meet its Regional Housing Needs Allocation (as mandated by state housing law) within the unincorporated areas (SCAG 2021).

4.3.4 Substantially Reduced Vehicle Miles Traveled Alternative

The Substantially Reduced Vehicle Miles Traveled Alternative would reduce GHG emissions from vehicle miles traveled (VMT) by motor vehicles in the unincorporated areas by approximately 20 percent, as compared to the Draft 2045 CAP’s reduction in VMT by approximately 4 percent.

The transportation sector is the leading contributor to GHG emissions in the state. GHG emissions from transportation come primarily from burning fossil fuels for motor vehicles (cars and trucks), ships, trains, and planes (USEPA 2021a). More than 90 percent of the fuel used for transportation is petroleum-based, which includes primarily gasoline and diesel (USEPA 2021a). Because LA County’s regulation of ships, trains, and planes would be preempted by federal law, LA County focused its consideration of a potential Substantially Reduced Vehicle Miles Traveled Alternative on reducing motor vehicle emissions.

The Draft 2045 CAP includes numerous measures and actions that require and encourage reductions in VMT within the confines of the 2035 General Plan (see Strategy 2, Increase Densities and Diversity of Land Uses Near Transit; Strategy 3, Reduce Single-Occupancy Vehicle Trips; and Strategy 4, Institutionalize Low-Carbon Transportation). Through these measures, the Draft 2045 CAP would reduce total VMT in the unincorporated County by 4 percent for each future year (2030, 2035, and 2045).

This Substantially Reduced Vehicle Miles Traveled Alternative would go farther: a 20 percent reduction in VMT. To achieve this, the alternative would advance aggressive policies to maximize building densities at locations served by public transit and to locate residences near jobs, shopping, and other services to reduce automobile dependency; and by enhancing bicycle, equestrian, and

pedestrian programs as well as carpooling and rideshare programs. This would require amending the General Plan's Land Use and Housing Elements to incorporate additional, more aggressive policies, and could require rezoning some parcels to allow the siting of new combinations of land uses.

The Substantially Reduced Vehicle Miles Traveled Alternative was not carried forward for more detailed review because its implementation would be remote or speculative. Total VMT in California and in the County is the product of myriad individual decisions made daily by households and businesses. More specifically, as stated by the University of California Institute of Transportation Studies (2021):

Household decisions about where, when, how often, and by what mode to travel determine their VMT; these decisions are conditioned by longer-term decisions about residential location and car ownership. Business decisions about shipments of material inputs and delivery of products or services determine VMT of goods movement. Business decisions about location influence household travel, for employees and customers, as do policies on remote work and online shopping. In other words, VMT is the product of the complex system of modern living.

Achieving a substantial reduction in VMT would require a major shift in decision-making by households and businesses alike, beyond the ability of LA County to implement. Significantly improved transit and alternative transportation infrastructure, widespread and inexpensive access to single-occupancy vehicle alternatives, and substantial financial incentives to use these transportation alternatives or (alternatively) providing considerable disincentives to drive could all be part of the solution. However, there is no basis to assume that this alternative could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. The time and expense required to implement this alternative, such as substantially upgrading transportation infrastructure, would compete with the County's pursuit of other community priorities, such as health, bridging the digital divide, child welfare, affordable housing, justice reform, and support for immigrant residents and their families (Los Angeles County 2022a, 2022b).

4.3.5 Aquatic Impact Avoidance Alternative

LA County initially considered an Aquatic Impact Avoidance Alternative in response to input received during the scoping period that suggested an alternative that would: (1) avoid impacts on aquatic and riparian resources by precluding the impediment, alteration, or other modification of existing surface flow, watercourses, and meander; (2) avoid impacts on water-dependent ecosystems and natural communities; and (3) consider elevated crossings of watercourses.

LA County reviewed and commented on the December 2021 draft of the California Natural Resources Agency's plan *Pathways to 30x30: Accelerating Conservation of California's Nature*. The December 2021 draft was finalized and issued April 22, 2022, just prior to publication of this Draft EIR (California Natural Resources Agency 2022). Because the final version was not available when this EIR was being prepared, the County considered the December 2021 draft as well as the U.S. Environmental Protection Agency's (USEPA's) and

the U.S. Army Corps of Engineers' (USACE's) mitigation requirements under Clean Water Act Section 404 in developing this Aquatic Impact Avoidance Alternative.

The California Natural Resources Agency proposed the draft Pathways to 30x30 framework in response to Governor Gavin Newsom's Executive Order N-82-20, which elevated the role of the state's natural and working lands in "achieving carbon neutrality and building climate resilience" by establishing a goal of conserving 30 percent of California's lands and coastal waters by 2030 (California Natural Resources Agency 2022). The framework recognizes that the conservation of intact ecosystems, like wetlands, sequesters atmospheric carbon, safeguards clean water and other important resources, and can protect people and nature from the impacts of climate change (California Natural Resources Agency 2022). Elements of the draft Pathways to 30x30 framework were carried forward into the Aquatic Impact Avoidance Alternative. This alternative includes the restoration of riparian areas and wetlands on public and private lands throughout the County's unincorporated areas; encourages conservation easements that provide financial incentives to public and private landowners in the unincorporated areas to conserve wetlands and other aquatic resources; and focuses on restoring degraded seascapes and priority coastal habitats.

The Aquatic Impact Avoidance Alternative has not been carried forward for more detailed review because it would not meet most of the basic Project objectives. Such an alternative would not implement the climate action policies of the General Plan (Objective 1); would not identify appropriate GHG emissions reduction targets that closely align with state and local climate goals (Objective 2); would not provide a road map to achieve GHG reductions to meet the GHG emissions reduction targets (Objective 3); and would not encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan (Objective 4).

This alternative also was not carried forward for more detailed review because its implementation is remote or speculative. As acknowledged in the draft Pathways to 30x30 framework, "Currently, demand for conservation easements outstrips available funding and the technical review process needed for recording easements can be complex and time consuming" (California Natural Resources Agency 2022). Opportunities to successfully address those challenges have not been developed; therefore, the impacts of implementing the alternative cannot be reasonably ascertained.

Further, this alternative would not avoid or substantially lessen a significant impact of the Project. As analyzed in the context of Impact 3.11-3 in Section 3.11, *Hydrology and Water Quality*, approval of the Draft 2045 CAP would not substantially alter the existing drainage pattern of the site or area, alter the course of a stream or river, or add impervious surfaces in a manner that would result in a significant impact. As analyzed in the context of criterion c) in Section 3.5, *Biological Resources*, approval of the Draft 2045 CAP could incentivize future projects—such as those supporting the electrification of new development—that could cause a significant adverse impact on state or federally protected wetlands (e.g., marshes, vernal pools, or coastal wetlands) through direct removal, filling, hydrological interruption, or other means.

However, future projects facilitated by Draft 2045 CAP measures and actions would be subject to project-specific permitting under Section 404 of the Clean Water Act. USEPA and USACE explain that, after all appropriate and practicable avoidance and minimization has been achieved, compensatory mitigation is required to offset any unavoidable adverse impacts that remain. In this context, these terms are defined as follows:

- *Avoidance* means mitigating an aquatic resource impact “by selecting the least-damaging project type, spatial location and extent compatible with achieving the purpose of the project” (USEPA 2021b).
- *Minimization* means reducing an aquatic resource impact “by managing the severity of a project’s impact on resources at the selected site. Minimization is achieved through the incorporation of appropriate and practicable design and risk avoidance measures” (USEPA 2021b).
- *Compensatory mitigation* means mitigating an aquatic resource impact “by replacing or providing substitute aquatic resources for impacts that remain after avoidance and minimization measures have been applied” (USEPA 2021b).

Three common avenues for compensatory mitigation are mitigation banks, in-lieu fee programs, and permittee-responsible mitigation (USEPA 2022). For example, the Petersen Ranch Mitigation Bank serves an area of nearly 4 million acres covering Los Angeles, Kern, Ventura, and San Bernardino counties and eventually will restore approximately 4,000 acres of native wetland habitat in the Leona Valley north of Los Angeles (USACE 2016). These avenues are in place and their implementation would be expected to achieve no net loss of jurisdictional waters from projects facilitated by Draft 2045 CAP measures and actions, consistent with federal and state policies.

4.4 Alternatives Evaluated in Detail in this EIR

4.4.1 No Project Alternative

CEQA Guidelines Section 15126.6(e) requires an EIR to evaluate the impacts of a no project alternative to enable a comparison of the potential environmental consequences that would result with and without the proposed project. In this case, the No Project Alternative examines a scenario in which LA County would not approve the 2045 CAP for implementation in the unincorporated areas. Under such a scenario, none of the emissions reduction strategies, measures, or actions outlined in the 2045 CAP would be implemented and none of the benefits and co-benefits identified would be realized. Further, the GHG emissions reduction strategies included in the Air Quality Element of the General Plan—known as the *Unincorporated Los Angeles County Community Climate Action Plan 2020*—expired in 2020. Accordingly, LA County would not continue to implement those strategies, which addressed emissions from land use, transportation, building energy, water consumption, and waste generation.

The No Project Alternative would also include continued implementation of other plans and programs that would have the result of reducing GHG emissions to the extent that such plans and programs were adopted before January 3, 2022, when the Notice of Preparation was published. The No Project Alternative is essentially captured in the 2045 CAP’s Adjusted

business-as-usual forecast, which accounts for future growth under business-as-usual conditions² but adjusts for federal, state, and LA County legislation and regulations that were implemented before development of the Draft 2045 CAP.³ Further, efforts to reduce GHG emissions would continue outside the study area—for example, in incorporated areas of Los Angeles County, in adjacent jurisdictions, and in other locations outside the County where land use and related activities are governed by regional, state, or federal agencies, such as the Southern California Association of Governments, California Air Resources Board, U.S. Forest Service, and National Park Service. This alternative would not provide a clear pathway for LA County to meet and exceed the statewide 2030 GHG emissions reduction goal identified in SB 32 or to meet the 2045 carbon neutrality goal established by Executive Order B-55-18.

In addition, the No Project Alternative would not meet any of the Project objectives. For example, the No Project Alternative would not implement the climate action policies of the General Plan (Objective 1); would not provide a road map to achieve GHG reductions to meet the GHG emission reduction targets (Objective 3); would not encourage sustainable housing production (Objective 4); and would not demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (“qualified CAP”) (Objective 5). Nonetheless, as required by CEQA, the No Project Alternative has been carried forward for more detailed review. See **Table 4-1**, *Screening Summary: No Project Alternative*.

TABLE 4-1
SCREENING SUMMARY: NO PROJECT ALTERNATIVE

Screening Considerations	Pass / Fail	Rationale
Would the potential alternative meet most of the basic Project objectives?	No	The No Project Alternative would not meet any of the Project objectives set forth in Section 2.2, <i>Project Purpose and Objectives</i> .
Would the potential alternative be potentially feasible?	Yes	Preliminarily, the No Project Alternative could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (Public Resources Code Section 21061.1; CEQA Guidelines Section 15126.6 and Section 15364).
Would the potential alternative avoid or substantially lessen any of the potential significant impacts of the Project?	Yes	The No Project Alternative would avoid all of the Project's significant impacts identified in Chapter 3.
Would implementation of the proposed alternative be remote or speculative?	No	The No Project Alternative very likely could result if the 2045 CAP is not approved.

CONCLUSION: Although the No Project Alternative fails to satisfy all of the screening criteria, it nonetheless has been carried forward for more detailed review in accordance with the requirements of CEQA.

- ² The “business-as-usual” forecast assumes no action is taken to reduce GHG emissions in the County. 2018 emissions are projected forward using growth indicators such as population, housing, and employment.
- ³ These adjustments include implementation of the California Energy Commission’s 2019 and 2023 Title 24 building energy efficiency requirements, the Renewable Portfolio Standards (SB 350), the California Department of Resources Recycling and Recovery 75 percent waste diversion initiative (AB 341), the Pavley and Advanced Clean Car Standards (AB 1493), and the Low Carbon Fuel Standards (Executive Order S-01-07).

4.4.2 Alternative 1: Carbon Offset Alternative

Under Alternative 1, in addition to implementing the measures and actions called for by the Draft 2045 CAP, LA County would reduce GHG emissions by purchasing carbon offsets. Carbon offset projects could increase or protect carbon sequestration, invest in solar or wind projects, improve water or energy efficiency, capture methane at animal farms or landfills, replace high-global-warming-potential gas use with a gas that has a lower global warming potential, or implement other measures. To achieve the greatest environmental co-benefits to the County, priority would be given, from highest to lowest, to offsets purchased locally (from within Los Angeles County), regionally (from within Southern California), within California, outside of California but within the Pacific Southwest (within Arizona, Hawaii, Utah, or Nevada), and elsewhere in the United States.

In January 2022, during the scoping period for this EIR, the cost of carbon allowances in the California cap-and-trade system was approximately \$28 per metric ton (ClimateWire 2022). The compliance carbon offsets that are allowable in California's cap-and-trade system tend to be priced about the same as allowances. However, LA County would have to purchase carbon offsets from the voluntary market, which is not regulated. Prices in the voluntary carbon market are generally lower, but can vary widely depending on the type, size, and location of the project generating the offset, as well as the protocol or standard under which it was developed. A spot check of over-the-counter reputable offset retailers, conducted in April 2022, reveals current prices for voluntary offsets ranging from approximately \$15 to \$25 per MTCO_{2e}.⁴ Based on these prices, the 2022 purchase of 1.25 million MTCO_{2e} could range from \$17 million to \$36 million per year. Funding sources would have to be identified, but theoretically could be sourced from the LA County general fund, existing or new development fees, or other sources. See **Table 4-2, Screening Summary: Alternative 1**.

4.4.3 Alternative 2: Zero Net Energy Buildings Alternative

A building is a zero net energy (ZNE) building if it is energy-efficient and if the actual energy it consumes annually on a source energy basis is less than or equal to the on-site renewable generated energy (California Department of General Services 2017). Stated another way, ZNE buildings produce enough renewable energy to meet their own annual energy consumption requirements, thereby reducing the use of nonrenewable energy in the building sector. These buildings achieve ZNE first through high levels of energy efficiency to minimize energy use, then through the addition of on-site renewable power generation and renewable energy storage systems (e.g., batteries).

⁴ Offset prices offered by four retailers were reviewed on April 11, 2022: atmosfair (<https://www.atmosfair.de/en>); CoolEffect (<https://www.cooleffect.org>), NativeEnergy (<https://native.eco>), and TerraPass (<https://www.terrapass.com>).

**TABLE 4-2
SCREENING SUMMARY: ALTERNATIVE 1**

Screening Considerations	Pass / Fail	Rationale
Would the potential alternative meet most of the basic Project objectives?	Yes	Alternative 1 would meet all of the Project objectives identified in Section 2.2, <i>Project Purpose and Objectives</i> , because it would assure that the functional equivalent of all emissions reductions to be achieved by the 2045 CAP would occur.
Would the potential alternative be potentially feasible?	Yes	Alternative 1 would be capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. Under Alternative 1, offsets could be used to replace any of the measures in the 2045 CAP, although costs would be greater if measures with larger greenhouse gas emissions reduction values were offset rather than implemented. The availability of funding is expected to act as a natural check on the mix of implementation and offsets.
Would the potential alternative avoid or substantially lessen any of the potential significant impacts of the Project?	Yes	The Carbon Offset Alternative would substantially reduce the Project's significant impacts attributed to projects facilitated by implementation of the Draft 2045 CAP measures and actions.
Would implementation of the proposed alternative be remote or speculative?	No	Considering that eligible projects could be located locally, regionally, statewide, nationally, or internationally, and that voluntary offset markets have been operating since the 1990s, implementation of Alternative 1 would be neither remote nor speculative.

CONCLUSION: Alternative 1 passes all screening criteria and has been carried forward for more detailed review.

Energy efficiency measures include building design elements that reduce energy demand such as high-performance building envelopes, air barrier systems, daylighting, sun control and shading design, window selection and glazing, passive solar heating, natural ventilation, and water conservation. Energy use could be managed with efficient equipment and systems, such as energy-efficient lighting; electric lighting controls; high-performing heating, ventilation, and air-conditioning; and energy-conversion devices. Once efficiency measures have been incorporated, the remaining energy needs of the building can be met with on-site renewable energy generation and storage. Common on-site electricity generation strategies include photovoltaic solar panels on rooftops or over surface parking, and solar water heating.

In 2008, the California Public Utilities Commission adopted (and then in 2011, updated) the California Energy Efficiency Strategic Plan (CPUC 2008; Engage 360 2011). This strategic plan outlined ambitious goals for the development of ZNE buildings for the 2009 to 2020 time period. In April 2012, Governor Edmund G. Brown Jr. furthered the goals of the California Energy Efficiency Strategic Plan when he issued Executive Order B-18-12, which ordered all new state buildings and major renovations beginning design after 2025 to be constructed as ZNE facilities. The Executive Order included an interim target for 50 percent of new facilities beginning design after 2020 to be ZNE. Executive Order B-18-12 also directed state agencies to take measures toward achieving ZNE for 50 percent of the square footage of existing state-owned building area by 2025.

Although the Strategic Plan has reached its sunset, and although Executive Order B-18-12 does not directly apply to local agencies, the goals of both measures remain relevant to the reduction of

GHG emissions by local governments. As the 2011 Update to the Strategic Plan recognized (Engage 360 2011):

Local governments have significant powers that can improve the energy efficiency of new and existing buildings. ...Local governments can be significant energy end users in their own buildings and facilities, from public schools to wastewater treatment plants to City Hall. These facilities provide an opportunity to “lead by example” by improving energy efficiency, reducing CO₂ emissions, and cutting government energy bills.

In addition to implementation of the Draft 2045 CAP measures and actions, a Zero Net Energy Buildings Alternative would include the following elements:

- All new residential and commercial construction in unincorporated areas of the County would be ZNE by 2023.
- 50 percent of residential and commercial buildings in unincorporated areas of the County would be retrofitted to ZNE by 2030.
- Projects in unincorporated areas of the County that voluntarily exceed state and local minimum energy codes would be rewarded with expedited permitting and favorable fee structures.
- 50 percent of new major renovations of LA County buildings would be ZNE by 2025.
- The energy usage footprint of local government buildings would be 50 percent below 2015 levels by 2030.

See **Table 4-3**, *Screening Summary: Alternative 2*.

TABLE 4-3
SCREENING SUMMARY: ALTERNATIVE 2

Screening Considerations	Pass / Fail	Rationale
Would the potential alternative meet most of the basic Project objectives?	Yes	Alternative 2 would meet all of the Project objectives identified in Section 2.2, <i>Project Purpose and Objectives</i> , because it incorporates and would go farther than the 2045 CAP in reducing GHG emissions.
Would the potential alternative be feasible?	Yes	There is a question as to whether zero net energy requirements would be economically feasible, based on the substantially higher cost of constructing such buildings relative to the cost of constructing other types of new buildings. Zero net energy buildings are anticipated to be much more efficient than buildings that meet current Title 24 “green building” standards, and thus would be expected to have lower energy demands and associated costs once operational. No evaluation has been done of the financial tradeoffs of higher upfront costs and lower operational energy costs. Without more information about economic feasibility, LA County has preliminarily determined that Alternative 2 would be feasible.
Would the potential alternative avoid or substantially lessen any of the potential significant impacts of the Project?	Yes	This alternative adds zero net energy buildings to the draft 2045 CAP measures and actions, which calls into question whether it would reduce CAP impacts; nonetheless, for purposes of screening, it is assumed that Alternative 2 has the potential to substantially lessen a potential significant impact of the Project.
Would implementation of the proposed alternative be remote or speculative?	No	State legislation and guidance has been in place for zero net energy buildings since at least 2012. Achievement of the stated outcomes would be neither remote nor speculative.

CONCLUSION: Alternative 2 passes all of the screening criteria and has been carried forward for more detailed review.

4.5 Comparative Analysis of Alternatives

Table 4-4, *Summary of Impacts of the Project and Alternatives*, summarizes the significant environmental impacts of the Project alternatives, and provides a fact-based comparison of the alternatives' impacts to the Project's impacts.

4.6 Environmentally Superior Alternative

The CEQA Guidelines define the *environmentally superior alternative* as that alternative with the least adverse impacts on the project area and its surrounding environment. For this Project, the No Project Alternative is considered the environmentally superior alternative for CEQA purposes because it would avoid all impacts of the Project even though air quality and GHG emissions would be the worst among all alternatives under the No Project Alternative. However, the No Project Alternative would fail to meet the basic objectives of the Project. Additionally, selection of the No Project Alternative would result in realization of none of the benefits identified in the Draft 2045 CAP. Because the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. (CEQA Guidelines Section 15126.6(e)(2).)

For purposes of this EIR, Alternative 1 is considered the environmentally superior alternative for CEQA purposes because it would result in less impacts in six resource areas relative to the Project (i.e., air quality, energy, GHG emissions, hydrology and water quality, transportation, and wildfire) and greater impacts than the Project in one resource area (i.e., utilities and service systems). Alternative 1 would have same impacts as the Project with respect to the remaining resources. See Table 4-4 for details.

It should be noted that Alternative 1 does have some drawbacks compared to the Project. Its costs would be substantially higher, ranging from an estimated \$17 million to \$36 million more per year. Also, communities, including disadvantaged communities, generally prefer GHG emissions reductions to be accomplished on-site, so that on-site reduced on-site air pollutant emissions are a co-benefit. With the possibility of Alternative 1's carbon offset projects being implemented outside the County and as far away as other states in the Pacific Southwest, local co-benefits may not be accomplished on-site.

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**TABLE 4-4
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.2	Aesthetics	<p>Impact 3.2-1: SU. The Project would result in a significant unavoidable impact on scenic vistas because projects facilitated by Draft 2045 CAP measures and actions could alter views of scenic vistas and because no feasible mitigation measures are available to reduce such impacts.</p> <p>Impact 3.2-2: SU. The Project would result in significant unavoidable impacts on views from regional riding, hiking, or multiuse trails because projects facilitated by Draft 2045 CAP measures and actions could be visible from or obstruct views from regional trails. Implementation of Mitigation Measure 3.2-1, Alternative Design, could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact.</p> <p>Impact 3.2-3: SU. The Project would result in a significant unavoidable impact on scenic resources, including but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway, because projects facilitated by Draft 2045 CAP measures and actions could result in visual contrast or changes during the construction of projects or by creating new structures that would create contrast compared to existing visual conditions. Implementation of Mitigation Measure 3.2-1, Alternative Design, could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact.</p> <p>Impact 3.2-4: SU. The Project would result in a significant unavoidable impact on the existing visual character or quality of public views of the site and its surroundings because projects facilitated by the Draft 2045 CAP could have height, bulk, pattern, scale, character, or other features and/or could conflict with applicable zoning and other regulations governing scenic quality, particularly if such projects were to be located in rural areas of the County where the visual contrast would be greater. Implementation of Mitigation Measure 3.2-2, Visual Screening, could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact.</p> <p>Impact 3.2-5: LTSM. The Project would result in a less-than-significant impact related to creating a new source of substantial shadow, light, or glare with the incorporation of Mitigation Measure 3.2-3, Reduce Light and Glare Impacts. The implementation of Mitigation Measure 3.2-3 would ensure that the lighting for projects facilitated by the Draft 2045 CAP would not substantially intrude on daytime or nighttime views in the area because its provisions would substantially confine generated light to within project boundaries.</p> <p>Impact 3.2-6: SU. The incremental impacts of the Project, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a significant cumulative impact on a scenic vista. No feasible mitigation measures are available to reduce this impact.</p> <p>Impact 3.2-7: SU. The incremental impacts of the Project, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a significant cumulative impact on views from a regional riding, hiking, or multiuse trail. Implementation of Mitigation Measure 3.2-1 would reduce the Project-specific contribution, which would remain cumulatively considerable and therefore significant and unavoidable. No other feasible mitigation measures are available to reduce this impact.</p>	<ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.2-1: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not alter views of scenic vistas. • Impact 3.2-2: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not obstruct views from a regional riding, hiking, or multiuse trail. • Impact 3.2-3: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not result in visual contrast or changes during the construction of projects or by creating new structures that would create contrast compared to existing visual conditions. • Impact 3.2-4: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. • Impact 3.2-5: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not create shade, shadows, daytime glare, and nighttime lighting. • Impact 3.2-6: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not cause or contribute to a significant cumulative impact on scenic vistas. • Impact 3.2-7: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not cause or contribute to cumulative impacts on views from a regional riding, hiking, or multiuse trail. 	<ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.2-1: SU (same as the Project) because projects facilitated by this alternative could alter views of scenic vistas and because no feasible mitigation measures are available to reduce such impacts. • Impact 3.2-2: SU (same as the Project) because projects facilitated by this alternative could be visible from or obstruct views from regional riding, hiking, or multiuse trails. Implementation of Mitigation Measure 3.2-1, Alternative Design, could reduce this impact, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-3: SU (same as the Project) because projects facilitated by this alternative could result in visual contrast or changes during construction or by creating new structures that would create contrast compared to existing visual conditions. Implementation of Mitigation Measure 3.2-1, Alternative Design, could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-4: SU (same as the Project) because projects facilitated by this alternative could be located in rural areas of the County where the visual contrast would be greater. Implementation of Mitigation Measure 3.2-2, Visual Screening, could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-5: LTSM (same as the Project) because projects facilitated by this alternative could create shade, shadows, daytime glare, and nighttime lighting; however, implementation of Mitigation Measure 3.2-3, Reduce Light and Glare Impacts, would ensure that the projects' lighting would not substantially intrude on daytime or nighttime views in the area. • Impact 3.2-6: SU (same as the Project) because the incremental impacts of projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a significant cumulative impact on a scenic vista. No feasible mitigation measures are available to reduce this impact. • Impact 3.2-7: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to significant cumulative impacts on views from a regional riding, hiking, or multiuse trail. Implementation of Mitigation Measure 3.2-1 would reduce the alternative-specific contribution, which would remain cumulatively considerable and therefore significant and unavoidable. No other feasible mitigation measures are available to reduce this impact. 	<ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.2-1: SU (same as the Project) because projects facilitated by this alternative could alter views of scenic vistas and because no feasible mitigation measures are available to reduce such impacts. • Impact 3.2-2: SU (same as the Project) because projects facilitated by this alternative could be visible from or obstruct views from regional riding, hiking, or multiuse trails. Implementation of Mitigation Measure 3.2-1, Alternative Design, could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-3: SU (same as the Project) because projects facilitated by this alternative could result in visual contrast or changes during construction or by creating new structures that would create contrast compared to existing visual conditions. Implementation of Mitigation Measure 3.2-1, Alternative Design, could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-4: SU (same as the Project) because projects facilitated by this alternative could be located in rural areas of the County where the visual contrast would be greater. Implementation of Mitigation Measure 3.2-2, Visual Screening, could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-5: LTSM (same as the Project) because projects facilitated by this alternative could create shade, shadows, daytime glare, and nighttime lighting; however, incorporation of Mitigation Measure 3.2-3, Reduce Light and Glare Impacts, would ensure that the projects' lighting would not substantially intrude on daytime or nighttime views in the area. • Impact 3.2-6: SU (same as the Project) because the incremental impacts of projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a significant cumulative impact on a scenic vista. No feasible mitigation measures are available to reduce this impact. • Impact 3.2-7: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to significant cumulative impacts on views from a regional riding, hiking, or multiuse trail. Implementation of Mitigation Measure 3.2-1 would reduce the alternative-specific contribution, which would remain cumulatively considerable and therefore significant and unavoidable. No other feasible mitigation measures are available to reduce this impact.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.2 (cont.)	Aesthetics	<p>Impact 3.2-8: SU. The incremental impacts of the Project, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a significant cumulative impact on scenic resources, including but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway. Implementation of Mitigation Measure 3.2-1 would reduce the Project-specific incremental contribution, but not to a less-than-significant level. Therefore, the Project would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable.</p> <p>Impact 3.2-9: SU. The incremental impacts of the Project, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a cumulative impact on the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character or other features and/or a conflict with applicable zoning and other regulations of governing scenic quality. Implementation of Mitigation Measure 3.2-2 would reduce the Project-specific increment, but not to a less-than-significant level. Therefore, the Project would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable.</p> <p>Impact 3.2-10: LTS. The Project would result in a less-than-significant contribution to a cumulative impact related to creating a new source of substantial shadow, light, or glare.</p>	<ul style="list-style-type: none"> Impact 3.2-8: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not cause or contribute to substantial cumulative damage to scenic resources, including but not limited to trees, rocks, outcroppings, and historic building within a state scenic highway. Impact 3.2-9: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. Impact 3.2-10: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not cause or contribute to a new source of substantial shadow, light, or glare, which would result in cumulative impacts on nighttime views in the area. 	<ul style="list-style-type: none"> Impact 3.2-8: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to substantial cumulative damage to scenic resources, including but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway. Implementation of Mitigation Measure 3.2-1 would reduce the alternative-specific increment, but not to a less-than-significant level. Therefore, this alternative would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable. Impact 3.2-9: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. Implementation of Mitigation Measure 3.2-2 would reduce the incremental contribution, but not to a less-than-significant level. Therefore, this alternative would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable. Impact 3.2-10: LTS (same as the Project) because projects facilitated by this alternative would not cause or contribute to a new source of substantial shadow, light, or glare, which would result in cumulative impacts on nighttime views in the area. 	<ul style="list-style-type: none"> Impact 3.2-8: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to substantial cumulative damage to scenic resources, including but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway. Implementation of Mitigation Measure 3.2-1 would reduce the alternative-specific increment, but not to a less-than-significant level. Therefore, this alternative would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable. Impact 3.2-9: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. Implementation of Mitigation Measure 3.2-2 would reduce the incremental contribution, but not to a less-than-significant level. Therefore, this alternative would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable. Impact 3.2-10: LTS (same as the Project) because projects facilitated by this alternative would not cause or contribute to a new source of substantial shadow, light, or glare, which would result in cumulative impacts on nighttime views in the area.
3.3	Agriculture and Forestry Resources	<p>Impact 3.3-1: SU. The Project would result in a significant unavoidable impact on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) because the development of projects facilitated by the Draft 2045 CAP could involve ground disturbance that could result in the conversion of designated Farmland to nonagricultural use. Implementing Mitigation Measure 3.3-1 would lessen the impact of the conversion of mapped Farmland to nonagricultural uses. However, this measure would not ensure that such conversion could be avoided and would have no impact on the conversion of mapped Farmland for residential or other uses of that land consistent with General Plan and zoning provisions.</p> <p>Impact 3.3-2: SU. The Project would result in a significant unavoidable impact related to conflicts with a designated Agricultural Resource Area because the development of projects facilitated by the Draft 2045 CAP could occur within an Agricultural Resource Area. Implementing Mitigation Measure 3.3-1, Avoidance of Undeveloped Lands When Siting Utility-Scale Solar Development, would lessen the impact caused by a conflict with a designated Agricultural Resource Area, but would not ensure that no significant conflict would occur.</p>	<ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.3-1: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not involve ground disturbance that could result in the conversion of Farmland to nonagricultural use. Impact 3.3-2: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not conflict with the existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract. 	<ul style="list-style-type: none"> Overall: = (same as the Project), although a conclusion of either greater than or less than the Project also could be drawn. It is possible that this alternative could have greater impacts than the Project (still SU) if the resulting carbon offsets were related to natural and working lands (i.e., projects to increase sequestration by altering natural lands or creating new lands); alternatively, the offsets could all have to do with fossil fuel reduction or be located outside of the County, which would have less of an impact than the Project. Impact 3.2-1: SU (same as the Project) because projects facilitated by this alternative could involve ground disturbance that could result in the conversion of Farmland to nonagricultural use. Although implementing Mitigation Measure 3.3-1 would lessen the impact, the impact would remain SU. Impact 3.3-2: SU (same as the Project) because projects facilitated by this alternative could be developed in conflict with a designated Agricultural Resource Area. Implementing Mitigation Measure 3.3-1, Avoidance of Undeveloped Lands When Siting Utility-Scale Solar Development, would lessen the impact caused by a conflict with a designated Agricultural Resource Area, but would not ensure that no significant conflict would occur. 	<ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.2-1: SU (same as the Project) because projects facilitated by this alternative could involve ground disturbance that could result in the conversion of Farmland to nonagricultural use. Although implementing Mitigation Measure 3.3-1 would lessen the impact, the impact would remain SU. Impact 3.3-2: SU (same as the Project) because projects facilitated by this alternative could be developed in conflict with a designated Agricultural Resource Area. Implementing Mitigation Measure 3.3-1, Avoidance of Undeveloped Lands When Siting Utility-Scale Solar Development, would lessen the impact caused by a conflict with a designated Agricultural Resource Area, but would not ensure that no significant conflict would occur.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.3 (cont.)	Agriculture and Forestry Resources	<p>Impact 3.3-3: LTS. The Project would result in a less-than-significant impact related to a conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production because, although the development of projects facilitated by the Draft 2045 CAP could be located on forest land, subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the conversation of forest or timberland.</p> <p>Impact 3.3-4: LTS. The Project would result in a less-than-significant impact related to the loss of forest land or conversion of forest land to non-forest use because, although the development of projects facilitated by the Draft 2045 CAP could result in the conversation of forest land, subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the loss or conversation of forest land.</p> <p>Impact 3.3-5: SU. The Project would result in a significant unavoidable impact related to other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use because the development of projects facilitated by Draft 2045 CAP measures and actions could cause other changes in the existing environment that would make remaining productive agricultural lands less productive and thereby result in conversion. Implementing Mitigation Measure 3.3-1 would lessen the impact, but would not ensure that conversion would not occur.</p> <p>Impact 3.3-6: SU. The Project would result in a significant unavoidable contribution to a cumulative impact on Farmland even with implementation of Mitigation Measure 3.3-1.</p> <p>Impact 3.3-7: SU. The Project would result in a significant unavoidable contribution to a cumulative impact related to conflicts with existing zoning for agricultural use, or with a designated Agricultural Resource Area. Implementing Mitigation Measure 3.3-1 would reduce but not avoid this significant cumulative impact.</p> <p>Impact 3.3-8: No Impact. The Project would result in no significant cumulative impact related to conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production because the Project's contribution would not be cumulatively considerable.</p> <p>Impact 3.3-9: LTS. The Project would result in no cumulative impact related to the loss of forest land or conversion of forest land to non-forest use because no significant cumulative impact exists to which the Project could contribute.</p> <p>Impact 3.3-10: SU. The Project, as a result of projects facilitated by the Draft 2045 CAP, would cause a significant unavoidable contribution to a cumulative impact related to other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use. Implementing Mitigation Measure 3.3-1 would lessen the Project's cumulative contribution to conversion-related impacts, but would not ensure that other changes resulting in conversion would not occur.</p>	<ul style="list-style-type: none"> Impact 3.3-3: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Impact 3.3-4: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not result in loss of forest land or conversion of forest land to non-forest use. Impact 3.3-5: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use. Impact 3.3-6: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not make a significant cumulative contribution to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Impact 3.3-7: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not result in a cumulatively significant conflict with the existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract. Impact 3.3-8: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Impact 3.3-9: No impact (less than the Project) because this alternative would not facilitate any projects, and because no significant cumulative impact related to the loss of forest land or conversion of forest land to non-forest use exists to which the alternative could contribute. Impact 3.3-10: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use. 	<ul style="list-style-type: none"> Impact 3.3-3: LTS (same as the Project) because projects facilitated by this alternative could be located on forest land, but subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the conversation of forest or timberland. Impact 3.3-4: LTS (same as the Project) because projects facilitated by this alternative could result in the conversation of forest land, but subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the loss or conversation of forest land. Impact 3.3-5: SU (same as the Project) because projects facilitated by this alternative could cause other changes in the existing environment that would make remaining productive agricultural lands less productive and thereby result in conversion. Implementing Mitigation Measure 3.3-1 would lessen the impact, but would not ensure that conversion would not occur. Impact 3.3-6: SU (same as the Project) because projects facilitated by this alternative would cause a significant cumulative contribution to the conversion of designated Farmland. Implementing Mitigation Measure 3.3-1 would reduce, but not avoid this significant cumulative impact. Impact 3.3-7: SU (same as the Project) because projects facilitated by this alternative would result in a cumulatively significant conflict with a designated Agricultural Resource Area. Implementing Mitigation Measure 3.3-1 would reduce but not avoid this significant cumulative impact. Impact 3.3-8: No Impact (same as the Project) because projects facilitated by this alternative would result in a cumulatively considerable impact related to a conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Impact 3.3-9: LTS (same as the Project) because no significant cumulative impact related to the loss of forest land or conversion of forest land to non-forest use exists to which the alternative could contribute. Impact 3.3-10: SU (same as the Project) because projects facilitated by this alternative would cause other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use. Implementing Mitigation Measure 3.3-1 would lessen the alternative's cumulative contribution to conversion-related impacts but would not ensure that other changes resulting in conversion would not occur. 	<ul style="list-style-type: none"> Impact 3.3-3: LTS (same as the Project) because projects facilitated by this alternative could be located on forest land, but subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the conversation of forest or timberland. Impact 3.3-4: LTS (same as the Project) because projects facilitated by this alternative could result in the conversation of forest land, but subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the loss or conversation of forest land. Impact 3.3-5: SU (same as the Project) because projects facilitated by this alternative could cause other changes in the existing environment that would make remaining productive agricultural lands less productive and thereby result in conversion. Implementing Mitigation Measure 3.3-1 would lessen the impact but would not ensure that conversion would not occur. Impact 3.3-6: SU (same as the Project) because projects facilitated by this alternative would cause a significant cumulative contribution to the conversion of designated Farmland. Implementing Mitigation Measure 3.3-1 would reduce but not avoid this significant cumulative impact. Impact 3.3-7: SU (same as the Project) because projects facilitated by this alternative would result in a cumulatively significant conflict with a designated Agricultural Resource Area. Implementing Mitigation Measure 3.3-1 would reduce but not avoid this significant cumulative impact. Impact 3.3-8: No Impact (same as the Project) because projects facilitated by this alternative would not result in a cumulatively considerable conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Impact 3.3-9: LTS (same as the Project) because no significant cumulative impact related to the loss of forest land or conversion of forest land to non-forest use exists to which the alternative could contribute. Impact 3.3-10: SU (same as the Project) because projects facilitated by this alternative would cause other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use. Implementing Mitigation Measure 3.3-1 would lessen the alternative's cumulative contribution to conversion-related impacts but would not ensure that other changes resulting in conversion would not occur.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.4	Air Quality	<p>Impact 3.4-1: SU. The Project would result in a significant unavoidable impact related to conflict with or obstruction of the implementation of the applicable air quality plan because construction of future projects facilitated by the Draft 2045 CAP could result in the generation of criteria pollutant emissions that could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emission reductions in the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Future construction and operation facilitated by the Project would be consistent with the control strategies of the SCAQMD Air Quality Management Plan or AVAQMD Air Quality Plan; construction jobs generated by projects facilitated by the Project would not conflict with the long-term employment or population projections upon which the AQMPs are based; and the Project would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021–2029 Housing Element and would generally not conflict with the growth projections in the 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 and 3.4-2 would reduce this impact, but not to less-than-significant levels.</p> <p>Impact 3.4-2: SU. The Project would result in a significant unavoidable impact associated with a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard because the development of projects facilitated by Draft 2045 CAP measures and actions could result in the generation of criteria pollutant emissions that would potentially exceed air district construction and operational significance thresholds. Mitigation Measures 3.4-1 through 3.4-4 would reduce this impact, but not to less-than-significant levels.</p> <p>Impact 3.4-3a: SU. The Project could result in a significant unavoidable impact associated with exposure of sensitive receptors to substantial pollutant concentrations because the development of projects facilitated by Draft 2045 CAP measures and actions could result in generation of toxic air pollutant concentrations that exceed risk thresholds. Mitigation Measures 3.4-1 through 3.4-6 would reduce the severity of the impact; however, impacts from construction-related localized emissions and TAC emissions may not be reduced to below the thresholds and impacts would remain significant and unavoidable.</p> <p>Impact 3.4-3b: LTS. The Project would not result in a significant impact associated with exposure of sensitive receptors to substantial pollutant concentrations relating to Valley Fever because compliance with independently enforceable legal obligations would ensure that the dust that could carry Valley Fever spores would be adequately controlled.</p> <p>Impact 3.4-4: LTS. The Project would result in a less-than-significant impact because it would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.</p>	<ul style="list-style-type: none"> • Overall: + (less than the Project) • Impact 3.4-1: No impact (less than the Project) because the No Project Alternative would not facilitate projects that could conflict with or obstruct implementation of the applicable air quality plan. • Impact 3.4-2: No impact (less than the Project) because the No Project Alternative would not facilitate projects that could result in any short-term construction or operational emissions that could exceed the SCAQMD’s project-level thresholds. Nonetheless, in contrast to the Project, the No Project Alternative would not reduce Countywide criteria pollutant emissions and so would result in a greater impact than the Project. • Impact 3.4-3a: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites. However, the No Project Alternative would result in a greater impact associated with exposure of sensitive receptors to operational TAC emissions because the No Project Alternative would not reduce Countywide TAC emissions and associated exposures, while the Project would substantially reduce Countywide TAC emissions and associated exposures. • Impact 3.4-3b: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would expose sensitive receptors to pollutant concentrations from dust that could carry Valley Fever spores. • Impact 3.4-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people. 	<ul style="list-style-type: none"> • Overall: – (similar to but less than the Project) • Impact 3.4-1: SU (same as the Project) because construction of future projects facilitated by the alternative could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emission reductions in the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Future construction and operation facilitated by the alternative would be consistent with the control strategies of the SCAQMD Air Quality Management Plan or AVAQMD Air Quality Plan; construction jobs generated by projects facilitated by this alternative would not conflict with the long-term employment or population projections upon which the AQMPs are based; and the alternative would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021–2029 Housing Element and would generally not conflict with the growth projections in the 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 through 3.4-2 would reduce the severity of potential emissions but would not reduce this impact to a less-than-significant level. • Impact 3.4-2: SU (similar to but less than the Project) because projects facilitated by this alternative would result in short-term construction emissions that could exceed the SCAQMD’s project-level thresholds; however, it would likely result in a reduced impact associated with operational emissions because it would likely reduce Countywide criteria pollutant emissions more than the Project through the implementation of carbon offsets (which sometimes have the co-benefit of reduced criteria pollutant emissions). Mitigation Measures 3.4-1 through 3.4-2 would reduce this impact, but not to less-than-significant levels. • Impact 3.4-3a: SU (similar to but less than the Project) because projects facilitated by this alternative would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites; however, this alternative would likely result in a reduced impact associated with exposure of sensitive receptors to operational TAC emissions because it would likely reduce Countywide TAC emissions and associated exposures more than the Project through the implementation of carbon offsets (which sometimes have the co-benefit of reduced TAC emissions). Mitigation Measures 3.4-1 through 3.4-6 would reduce the severity of the impact; however, impacts from construction-related localized emissions and TAC emissions may not be reduced to below the thresholds, and the impact would remain significant and unavoidable. • Impact 3.4-3b: LTS (same as the Project) because projects facilitated by Alternative 1 would be subject to the same independently enforceable regulatory controls to ensure that dust that could carry Valley Fever spores would be adequately controlled. • Impact 3.4-4: LTS (same as the Project) because it would not increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people. 	<ul style="list-style-type: none"> • Overall: + (similar to but greater than the Project) • Impact 3.4-1: SU (same as the Project) because construction of future projects facilitated by the alternative could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emissions reductions in the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Future construction and operation facilitated by the alternative would be consistent with the control strategies of the SCAQMD Air Quality Management Plan or AVAQMD Air Quality Plan; construction jobs generated by projects facilitated by this alternative would not conflict with the long-term employment or population projections upon which the AQMPs are based; and the alternative would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021–2029 Housing Element and would generally not conflict with the growth projections in the 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 through 3.4-2 would reduce the severity of potential emissions but would not reduce this impact to a less-than-significant level. • Impact 3.4-2: SU (similar to but greater than the Project) because projects facilitated by this alternative would result in short-term construction emissions that could exceed the SCAQMD’s project-level thresholds; however, it would likely result in a greater impact associated with construction emissions because it would involve additional construction for ZNE buildings, and it would likely result in a reduced impact associated with operational criteria pollutant emissions because it would likely reduce Countywide criteria pollutant emissions more than the Project through the operation of ZNE buildings. Mitigation Measures 3.4-1 through 3.4-2 would reduce this impact, but not to less-than-significant levels. • Impact 3.4-3a: SU (similar to but greater than the Project) because projects facilitated by this alternative would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites. However, this alternative would likely result in a greater impact associated with exposure of sensitive receptors to construction-related TAC emissions because it would involve additional construction for ZNE buildings; and it would likely result in a reduced impact associated with exposure of sensitive receptors to operational TAC emissions because it would likely reduce Countywide TAC emissions and associated exposures more than the Project through the operation of ZNE buildings. Mitigation Measures 3.4-1 through 3.4-6 would reduce the severity of the impact; however, impacts from construction-related localized emissions and TAC emissions may not be reduced to below the thresholds and the impact would remain significant and unavoidable. • Impact 3.4-3b: LTS (same as the Project) because projects facilitated by Alternative 2 would be subject to the same independently enforceable regulatory controls to ensure that dust that could carry Valley Fever spores would be adequately controlled. • Impact 3.4-4: LTSM (same as the Project) because it would not increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people.

TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.4 (cont.)	Air Quality	<p>Impact 3.4-5: SU. The Project would result in a significant and unavoidable impact because construction of future projects facilitated by Draft 2045 CAP measures and actions could increase the frequency or severity of an existing violation or cause or contribute to new violations, and could therefore conflict with or obstruct implementation of the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 and 3.4-2 would reduce this impact, but not to less-than-significant levels.</p> <p>Impact 3.4-6: SU. The Project would result in a significant unavoidable impact because the development of projects facilitated by Draft 2045 CAP measures and actions could result in the generation of criteria pollutant emissions that would potentially exceed air district construction and operational significance thresholds, and therefore, the Project could result in cumulatively considerable emissions and cumulatively significant air quality impacts. Mitigation Measures 3.4-1 through 3.4-4 would reduce this impact, but not to less-than-significant levels.</p> <p>Impact 3.4-7: SU. The Project would result in a significant and unavoidable impact because projects facilitated by the Draft 2045 CAP would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites that could exceed the SCAQMD and AVAQMD significance thresholds, and therefore could contribute to a significant cumulative impact on air quality associated with TAC emissions. Mitigation Measures 3.1-1 through 3.4-6 would reduce this impact, but not to less-than-significant levels.</p> <p>Impact 3.4-8: LTS. The Project would result in a less-than-significant impact because it would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and therefore, impacts would not be cumulatively considerable.</p>	<ul style="list-style-type: none"> Impact 3.4-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that could conflict with or obstruct implementation of the applicable air quality plan. Impact 3.4-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that could result in any short-term construction or operational emissions that could exceed the SCAQMD's project-level thresholds, and therefore, the alternative would not result in cumulatively considerable emissions and cumulatively significant air quality impacts. Impact 3.4-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites; however, it would result in a greater impact associated with exposure of sensitive receptors to operational TAC emissions because it would not reduce Countywide TAC emissions and associated exposures, while the Project would substantially reduce Countywide TAC emissions and associated exposures. Impact 3.4-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that affect a substantial number of people, and therefore, impacts would not be cumulatively considerable. 	<ul style="list-style-type: none"> Impact 4.4-5: SU (same as the Project) because construction of future projects facilitated by this alternative could increase the frequency or severity of an existing violation or cause or contribute to new violations and could therefore conflict with or obstruct implementation of the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 and 3.4-2 would reduce this impact, but not to less-than-significant levels. Impact 3.4-6: SU (similar to but less than the Project) because projects facilitated by this alternative could result in the generation of criteria pollutant emissions that would potentially exceed air district construction and operational significance thresholds, and therefore, this alternative could result in cumulatively considerable emissions and cumulatively significant air quality impacts. However, this alternative would likely result in a reduced impact associated with operational emissions because it would likely reduce Countywide criteria pollutant emissions more than the Project through the implementation of carbon offsets (which sometimes have the co-benefit of reduced criteria pollutant emissions). Mitigation Measures 3.4-1 through 3.4-4 would reduce the severity of the impact, but not to less-than-significant levels. Impact 3.4-7: SU (similar to but less than the Project) because projects facilitated by this alternative would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites; however, this alternative would likely result in a reduced impact associated with exposure of sensitive receptors to operational TAC emissions because it would likely reduce Countywide TAC emissions and associated exposures more than the Project through the implementation of carbon offsets (which sometimes have the co-benefit of reduced TAC emissions). Mitigation Measures 3.4-1 through 3.4-6 would reduce this impact, but not to less-than-significant levels. Impact 3.4-8: LTS (same as the Project) because it would not increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people, and therefore, impacts would not be cumulatively considerable. 	<ul style="list-style-type: none"> Impact 4.4-5: SU (same as the Project) because construction of future projects facilitated by this alternative could increase the frequency or severity of an existing violation or cause or contribute to new violations and could therefore conflict with or obstruct implementation of the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Impact 3.4-6: LTSM (similar to but greater than the Project) because projects facilitated by this alternative could result in the generation of criteria pollutant emissions that would potentially exceed air district construction and operational significance thresholds, and therefore, this alternative could result in cumulatively considerable emissions and cumulatively significant air quality impacts. However, this alternative would likely result in a greater impact associated with construction emissions because it would involve additional construction for ZNE buildings; and it would likely result in a reduced impact associated with operational criteria pollutant emissions because it would likely reduce Countywide criteria pollutant emissions more than the Project through the operation of ZNE buildings. Mitigation Measures 3.4-1 through 3.4-4 would reduce the severity of the impact, but not to less-than-significant levels. Impact 3.4-7: SU (similar to but greater than the Project) because projects facilitated by this alternative would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites. However, this alternative would likely result in a greater impact associated with exposure of sensitive receptors to construction-related TAC emissions because it would involve additional construction for ZNE buildings; and it would likely result in a reduced impact associated with exposure of sensitive receptors to operational TAC emissions because it would likely reduce Countywide TAC emissions and associated exposures more than the Project through the operation of ZNE buildings. Mitigation Measures 3.1-1 through 3.4-6 would reduce this impact, but not to less-than-significant levels. Impact 3.4-8: LTS (same as the Project) because it would not increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people, and therefore, impacts would not be cumulatively considerable.
3.5	Biological Resources	<p>Impact 3.5-1: LTSM. The Project would result in a less-than-significant impact with mitigation on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS, because the development of projects facilitated by the Draft 2045 CAP could cause mortality of special-status species or result in habitat loss or modification of such species. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels.</p> <p>Impact 3.5-2: SU. The Project would result in a significant and unavoidable adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS because the development of projects facilitated by the Draft 2045 CAP could result in the loss of common, non-sensitive habitat.</p>	<ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.5-1: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would have a direct adverse impact on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Impact 3.5-2: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in the loss of common, non-sensitive habitat and therefore would not result in an adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. 	<ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.5-1: LTSM (same as the Project) because projects facilitated by this alternative could cause mortality of special-status species or result in habitat loss or modification of such species. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels. Impact 3.5-2: SU (same as the Project) because projects facilitated by this alternative could result in the loss of common, non-sensitive habitat. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. 	<ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.5-1: LTSM (same as the Project) because projects facilitated by this alternative could cause mortality of special-status species or result in habitat loss or modification of such species. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels. Impact 3.5-2: SU (same as the Project) because projects facilitated by this alternative could result in the loss of common, non-sensitive habitat. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
<p>3.5 (cont.)</p>	<p>Biological Resources</p>	<p>Impact 3.5-3: SU. The Project would result in a significant and unavoidable adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, or regulations, or by CDFW or USFWS because the development of projects facilitated by the Draft 2045 CAP could result in direct removal or conversion of habitat or indirectly through introduction of nonnative, invasive plants into the sensitive natural community and/or reduction of sensitive natural communities.</p> <p>Impact 3.5-4: LTSM. The Project would result in a less-than-significant impact with mitigation incorporated on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) because the development of projects facilitated by the Draft 2045 CAP could result in removal, filling, hydromodification, or diversion or change in water quality. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels.</p> <p>Impact 3.5-5: SU. The Project would result in a significant and unavoidable adverse indirect impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites because the development of projects facilitated by the Draft 2045 CAP could narrow existing corridors or remove them completely.</p> <p>Impact 3.5-6: LTS. The Project would result in a less-than-significant impact due to conversion of oak woodlands or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.) because the development of projects facilitated by the Draft 2045 CAP could result in direct tree or woodland removal if construction vehicles would drive over woodland root systems or if watersheds that rely on recycled water receive reduced recycled water amounts due to other water diversions within the watershed or drought; however, compliance with existing ordinances and requirements would limit the impacts and subsequent CEQA reviews for such projects would require mitigation to reduce any identified significant impact.</p> <p>Impact 3.5-7: SU. The Project would result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.</p> <p>Impact 3.5-8: SU. The Project would result in a significant and unavoidable cumulatively considerable contribution to a cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS.</p> <p>Impact 3.5-9: LTSM. The Project would result in a less-than-significant cumulatively considerable contribution with mitigation incorporated to a cumulative impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.</p>	<ul style="list-style-type: none"> Impact 3.5-3: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in an adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, or regulations or by CDFW or USFWS. Impact 3.5-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in direct removal, filling, hydromodification, or diversion or change in water quality, and therefore, it would not result in an adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.). Impact 3.5-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in an adverse indirect impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. Impact 3.5-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would convert oak woodlands or other unique native woodlands. Impact 3.5-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Impact 3.5-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in a cumulatively considerable contribution with mitigation incorporated to a cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, or regulations or by CDFW or USFWS. Impact 3.5-9: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in a cumulatively considerable contribution with mitigation incorporated to a cumulative impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. 	<ul style="list-style-type: none"> Impact 3.5-3: SU (same as the Project) because projects facilitated by this alternative could result in direct removal or conversion of habitat or indirectly through introduction of nonnative, invasive plants into the sensitive natural community and/or reduction of sensitive natural communities. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-4: LTSM (same as the Project) because projects facilitated by this alternative could result in direct removal, filling, hydromodification, or diversion or change in water quality. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels. Impact 3.5-5: SU (same as the Project) because projects facilitated by this alternative could narrow existing wildlife corridors or remove them completely. Mitigation Measures 3.5-1 and 3.5-3 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-6: LTS (same as the Project) because projects facilitated by this alternative could result in direct tree or woodland removal if construction vehicles would drive over woodland root systems, or if watersheds that rely on recycled water receive reduced recycled water amounts due to other water diversions within the watershed or drought; however, compliance with existing ordinances and other requirements would limit the impacts and subsequent CEQA reviews for such projects would require mitigation to reduce any identified significant impact. Impact 3.5-7: SU (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-8: SU (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, or regulations or by CDFW or USFWS. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-9: LTSM (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels. 	<ul style="list-style-type: none"> Impact 3.5-3: SU (same as the Project) because projects facilitated by this alternative could result in direct removal or conversion of habitat or indirectly through introduction of nonnative, invasive plants into the sensitive natural community and/or reduction of sensitive natural communities. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-4: LTSM (same as the Project) because projects facilitated by this alternative could result in direct removal, filling, hydromodification, or diversion or change in water quality. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels. Impact 3.5-5: SU (same as the Project) because projects facilitated by this alternative could narrow existing wildlife corridors or remove them completely. Mitigation Measures 3.5-1 and 3.5-3 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-6: LTS (same as the Project) because projects facilitated by this alternative could result in direct tree or woodland removal if construction vehicles would drive over woodland root systems, or if watersheds that rely on recycled water would receive reduced recycled water amounts due to other water diversions within the watershed or drought; however, compliance with existing ordinances and other requirements would limit the impacts and subsequent CEQA reviews for such projects would require mitigation to reduce any identified significant impact. Impact 3.5-7: SU (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-8: SU (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, or regulations or by CDFW or USFWS. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-9: LTSM (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.5 (cont.)	Biological Resources	<p>Impact 3.5-10: SUM. The Project would result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or to an impediment to the use of native wildlife nursery sites. Mitigation Measures 3.5-1 and 3.5-3 would reduce the severity of the Project's contribution, but not to a less-than-significant level.</p> <p>Impact 3.5-11: LTS. The Project would result in a less-than-significant cumulatively considerable contribution to a cumulative impact relative to conversion of oak woodlands or other unique native woodlands.</p>	<ul style="list-style-type: none"> Impact 3.5-10: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in a cumulatively considerable contribution to a cumulative impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or to an impediment to the use of native wildlife nursery sites. Impact 3.5-11: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in a cumulatively considerable contribution to a cumulative impact relative to conversion of oak woodlands or other unique native woodlands. 	<ul style="list-style-type: none"> Impact 3.5-10: SUM (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or to an impediment to the use of native wildlife nursery sites. Mitigation Measures 3.5-1 and 3.5-3 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-11: LTS (same as the Project) because projects facilitated by this alternative would not result in a less-than-significant cumulatively considerable contribution to a cumulative impact relative to conversion of oak woodlands or other unique native woodlands. 	<ul style="list-style-type: none"> Impact 3.5-10: SUM (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or to an impediment to the use of native wildlife nursery sites. Mitigation Measures 3.5-1 and 3.5-3 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-11: LTS (same as the Project) because projects facilitated by this alternative would not result in a less-than-significant cumulatively considerable contribution to a cumulative impact relative to conversion of oak woodlands or other unique native woodlands.
3.6	Cultural Resources	<p>Impact 3.6-1: LTSM. The Project would result in a less-than-significant impact with mitigation incorporated by causing a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5, because the development of projects facilitated by the Draft 2045 CAP could adversely affect known resources and unknown resources to be discovered.</p> <p>Impact 3.6-2: LTSM. The Project would result in a less-than-significant impact with mitigation incorporated by causing a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5, because the development of projects facilitated by the Draft 2045 CAP could result in direct or indirect adverse changes to unique archaeological resources.</p> <p>Impact 3.6-3: LTSM. The Project would result in a less-than-significant impact with mitigation incorporated by directly or indirectly destroying a unique paleontological resource or site or unique geologic feature, because the development of projects facilitated by the Draft 2045 CAP could result in direct or indirect adverse changes to unique paleontological resources.</p> <p>Impact 3.6-4: LTSM. The Project would result in a less-than-significant impact with mitigation incorporated on human remains, including those interred outside of dedicated cemeteries, because the development of projects facilitated by the Draft 2045 CAP could result in ground-disturbing activities that could affect human remains interred outside of a dedicated cemetery.</p>	<ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.6-1: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. Impact 3.6-2: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause a substantial direct or indirect adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5. Impact 3.6-3: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Impact 3.6-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would disturb human remains, including those interred outside of dedicated cemeteries. 	<ul style="list-style-type: none"> Overall: = (same as than the Project) Impact 3.6-1: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5; however, implementation of Mitigation Measures 3.6-1 through 3.6-6 would reduce the impact to less than significant. Impact 3.6-2: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause a substantial direct or indirect adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5; however, implementation of Mitigation Measures 3.6-2 through 3.6-6 would reduce the impact to less than significant. Impact 3.6-3: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; however, implementation of Mitigation Measures 3.6-7 through 3.6-9 would reduce the impact to less than significant. Impact 3.6-4: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that could disturb human remains, including those interred outside of dedicated cemeteries; however, implementation of Mitigation Measure 3.6-10 would reduce the impact to less than significant. 	<ul style="list-style-type: none"> Overall: = (same as than the Project) Impact 3.6-1: LTSM (same as the Project) because the demolition or alteration of existing buildings and/or structures or other aboveground infrastructure could cause a significant impact on a historical resource pursuant to CEQA Guidelines Section 15064.5, including historic architectural resources. Implementation of Mitigation Measures 3.6-1 through 3.6-6 would reduce the impact to less than significant. Impact 3.6-2: LTSM (same as the Project) because the same projects that could be facilitated by the Project's measures actions also could be facilitated by Alternative 2 and so also would require the implementation of Mitigation Measures 3.6-2 through 3.6-6 to reduce the impact to less than significant. Alternative 2's addition of ZNE projects would result in the demolition or alteration of existing buildings and other work to incorporate building design elements that reduce energy demand; however, the ZNE projects would be unlikely to involve ground disturbance outside an existing building or structure's prior construction zone and thereby cause a substantial direct or indirect adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5. Impact 3.6-3: LTSM (same as the Project) because the same projects that could be facilitated by the Project also could be facilitated by Alternative 2 and so also would require the implementation of Mitigation Measures 3.6-7 through 3.6-9 to reduce the impact to less than significant. Alternative 2's addition of ZNE projects would result in the demolition or alteration of existing buildings and other work to incorporate building design elements that reduce energy demand; however, such projects are unlikely to involve ground disturbance outside an existing building or structure's prior construction zone and thereby result in direct or indirect destruction of a unique paleontological resource or site or unique geologic feature. Impact 3.6-4: LTSM (same as the Project) because the same projects that could be facilitated by the Project also could be facilitated by Alternative 2 and so also would require the implementation of Mitigation Measure 3.6-10 to reduce the impact to less than significant. Alternative 2's addition of ZNE projects would result in the demolition or alteration of existing buildings and other work to incorporate building design elements that reduce energy demand; however, such projects are unlikely to involve ground disturbance outside an existing building or structure's prior construction zone and thereby result in the disturbance of human remains, including those interred outside of dedicated cemeteries.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.6 (cont.)	Cultural Resources	<p>Impact 3.6-5: LTSM. The Project would result in a less-than-significant cumulatively considerable contribution with mitigation incorporated to a cumulative impact on historical resources.</p> <p>Impact 3.6-6: LTSM. The Project would result in a less-than-cumulatively considerable contribution with mitigation incorporated to a cumulative impact on unique archaeological resources.</p> <p>Impact 3.6-7: LTSM. The Project would result in a less-than-cumulatively considerable contribution with mitigation incorporated to a cumulative impact on unique paleontological resources or sites or unique geologic features.</p> <p>Impact 3.6-8: LTSM. The Project would result in a less-than-cumulatively considerable contribution with mitigation incorporated to a cumulative impact on human remains, including those interred outside of dedicated cemeteries.</p>	<ul style="list-style-type: none"> Impact 3.6-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact on historical resources. Impact 3.6-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact on unique archaeological resources. Impact 3.6-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact on unique paleontological resources or sites or unique geologic features. Impact 3.6-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact on human remains, including those interred outside of dedicated cemeteries. 	<ul style="list-style-type: none"> Impact 3.6-5: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on historical resources; however, implementation of Mitigation Measures 3.6-2 through 3.6-6 would reduce the impact to less than significant. Impact 3.6-6: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on unique archaeological resources; however, implementation of Mitigation Measures 3.6-2 through 3.6-6 would reduce the impact to less than significant. Impact 3.6-7: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on unique paleontological resources or sites or unique geologic features; however, implementation of Mitigation Measures 3.6-7 through 3.6-9 would reduce the impact to less than significant. Impact 3.6-8: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on human remains, including those interred outside of dedicated cemeteries; however, implementation of Mitigation Measure 3.6-10 would reduce the impact to less than significant. 	<ul style="list-style-type: none"> Impact 3.6-5: LTSM (same as the Project) because this alternative's significant incremental contribution to a significant cumulative impact on historical resources would be reduced to a less than cumulatively considerable level with implementation of Mitigation Measures 3.6-2 through 3.6-6. Impact 3.6-6: LTSM (same as the Project) because this Alternative's incremental less-than-significant contribution to cumulative impacts would not cause or contribute to any significant cumulative impact on unique archaeological resources. Impact 3.6-7: LTSM (same as the Project) because this Alternative's incremental less than significant contribution would not cause or contribute to any significant cumulative impact on unique paleontological resources or sites or unique geologic features. Impact 3.6-8: LTSM (same as the Project) because this Alternative's incremental less than significant contribution would not cause or contribute to any significant cumulative impact on human remains, including those interred outside of dedicated cemeteries.
3.7	Energy	<p>Impact 3.7-1: No Impact. The Project would result in no potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation.</p> <p>Impact 3.7-2: No Impact. The Project would result in no impact related to a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency.</p>	<ul style="list-style-type: none"> Overall: + (greater than the Project) Impact 3.7-1: LTS (greater than the Project) because the No Project Alternative would not facilitate any projects that would reduce Countywide energy use, while the Project would substantially reduce Countywide energy use. However, this alternative would not result in wasteful, inefficient, or unnecessary consumption of energy resources and therefore would result in a less-than-significant impact. Impact 3.7-2: LTS (greater than the Project) because the No Project Alternative would not facilitate any projects that would reduce Countywide energy use or increase renewable energy use, while the Project would substantially reduce Countywide energy use and substantially increase renewable energy use. However, this alternative would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and therefore would result in a less-than-significant impact. 	<ul style="list-style-type: none"> Overall: – (similar to but less than the Project) Impact 3.7-1: No Impact (same as the Project) because it would result in no potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. However (less than the Project), this alternative may improve conditions (i.e., result in a beneficial effect) related to reduced Countywide energy use relative to the Project through the purchase of carbon offsets. Impact 3.7-2: No Impact (same as the Project) because it would result in no impact related to a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency. However (less than the Project), this alternative may improve conditions (i.e., result in a beneficial effect) related to a reduction in Countywide energy use and/or increase in renewable energy use relative to the Project through the purchase of carbon offsets, which would further the aims of applicable state or local plans for renewable energy or energy efficiency. 	<ul style="list-style-type: none"> Overall: – (similar to but less than the Project) Impact 3.7-1: No Impact (same as the Project) because it would result in no potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. However (less than the Project), this alternative would likely improve conditions (i.e., result in a beneficial effect) related to reduced Countywide energy use relative to the Project via the operation of ZNE buildings. Impact 3.7-2: No Impact (same as the Project) because it would result in no impact related to a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency. However (less than the Project), this alternative would likely improve conditions (i.e., result in a beneficial effect) related to a reduction in Countywide energy use and/or increase in renewable energy use relative to the Project via the operation of ZNE buildings, which would further the aims of applicable state or local plans for renewable energy or energy efficiency.
3.8	Geology and Soils	<p>Impact 3.8-1: LTS. The Project would result in a less-than-significant impact related to the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace, because adherence to Project-specific geotechnical recommendations and applicable state and local laws would ensure that any adverse effects from the presence of a known Earthquake Fault Zone would be less than significant.</p>	<ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.8-1: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace. 	<ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.8-1: LTS (same as the Project) because projects facilitated by this alternative could include habitable structures within or adjacent to Earthquake Fault Zones. However, all projects would be constructed in accordance with all applicable state and local laws; Earthquake Fault Zones would be identified during the planning process for any new project and avoided when the location of new habitable structures is decided; and adherence to project-specific geotechnical recommendations and applicable state and local laws would ensure that any adverse effects from the presence of a known Earthquake Fault Zone would be less than significant. 	<ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.8-1: LTS (same as the Project) because projects facilitated by this alternative could include habitable structures within or adjacent to Earthquake Fault Zones. However, all projects would be constructed in accordance with all applicable state and local laws; Earthquake Fault Zones would be identified during the planning process for any new project and avoided when the location of new habitable structures is decided; and adherence to project-specific geotechnical recommendations and applicable state and local laws would ensure that any adverse effects from the presence of a known Earthquake Fault Zone would be less than significant.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.8 (cont.)	Geology and Soils	<p>Impact 3.8-2: LTS. The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.</p> <p>Impact 3.8-3: LTS. The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading.</p> <p>Impact 3.8-4: LTS. The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.</p> <p>Impact 3.8-5: LTS. The Project would not result in substantial soil erosion or loss of topsoil.</p> <p>Impact 3.8-6: LTS. The Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.</p>	<ul style="list-style-type: none"> Impact 3.8-2: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Impact 3.8-3: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading. Impact 3.8-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Impact 3.8-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in substantial soil erosion or loss of topsoil. Impact 3.8-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. 	<ul style="list-style-type: none"> Impact 3.8-2: LTS (same as the Project) because although projects facilitated by this alternative could be damaged by strong seismic ground shaking, potential damage to the components (such as solar photovoltaic panels) from seismic events could easily be repaired and would not pose a significant hazard of loss, injury, or death. Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Impact 3.8-3: LTS (same as the Project) because projects facilitated by this alternative could be subject to the effects of liquefaction and/or lateral spreading should they be proposed in susceptible areas, thereby exposing people and structures to the potentially damaging effects of liquefaction and/or lateral spreading. However, compliance with project-specific geotechnical design recommendations, applicable building code standards, and other federal, state, and local requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. Impact 3.8-4: LTS (same as the Project) because projects facilitated by this alternative would be subject to the effects of earthquake-induced landslides should they be proposed in susceptible areas and, if so, would expose people and structures to the potentially damaging effects of landslides. However, compliance with project-specific geotechnical design recommendations and all applicable requirements and standards would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. Impact 3.8-5: LTS (same as the Project) because projects facilitated by this alternative could include large-scale earth-moving activities that could increase the risk of erosion or sediment transport as a result of clearing, excavation, grading, trenching, or soil stockpiling, and implementation of these and other projects facilitated by this alternative (including any developed on steep slopes) could create a significant impact related to erosion or sediment transport, should construction activities go unregulated. However, compliance with independently enforceable laws, regulations, plans, and standards such as Construction General Permit requirements would prevent or substantially reduce erosion during construction of any projects facilitated by this alternative, and therefore, this alternative would not result in substantial soil erosion or loss of topsoil. Impact 3.8-6: LTS (same as the Project) because projects facilitated by this alternative could involve dewatering, which could exacerbate land subsidence in the region; however, compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction, lateral spreading, landslides, and subsidence. 	<ul style="list-style-type: none"> Impact 3.8-2: LTS (same as the Project) because although projects facilitated by this alternative could be damaged by strong seismic ground shaking, potential damage to the components (such as photovoltaic panels) from seismic events could easily be repaired and would not pose a significant hazard of loss, injury, or death. Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Impact 3.8-3: LTS (same as the Project) because projects facilitated by this alternative could be subject to the effects of liquefaction and/or lateral spreading should they be proposed in susceptible areas, thereby exposing people and structures to the potentially damaging effects of liquefaction and/or lateral spreading. However, compliance with project-specific geotechnical design recommendations, applicable building code standards, and other federal, state, and local requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. Impact 3.8-4: LTS (same as the Project) because projects facilitated by this alternative would be subject to the effects of earthquake-induced landslides should they be proposed in susceptible areas and, if so, would expose people and structures to the potentially damaging effects of landslides. However, compliance with project-specific geotechnical design recommendations and all applicable requirements and standards would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. Impact 3.8-5: LTS (same as the Project) because projects facilitated by this alternative could include large-scale earth-moving activities that could increase the risk of erosion or sediment transport as a result of clearing, excavation, grading, trenching, or soil stockpiling, and implementation of these and other projects facilitated by this alternative (including any developed on steep slopes) could create a significant impact related to erosion or sediment transport, should construction activities go unregulated. However, compliance with independently enforceable laws, regulations, plans, and standards such as Construction General Permit requirements would prevent or substantially reduce erosion during construction of any projects facilitated by this alternative, and therefore, this alternative would not result in substantial soil erosion or loss of topsoil. Impact 3.8-6: LTS (same as the Project) because projects facilitated by this alternative could involve dewatering, which could exacerbate land subsidence in the region; however, compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction, lateral spreading, landslides, and subsidence.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.8 (cont.)	Geology and Soils	<p>Impact 3.8-7: LTS. The Project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.</p> <p>Impact 3.8-8: LTS. The Project would not have soils incapable of adequately supporting the use of on-site wastewater treatment systems where sewers are not available for the disposal of wastewater.</p> <p>Impact 3.8-9: LTS. The Project would not conflict with the Hillside Management Area Ordinance.</p> <p>Impact 3.8-10: LTS. The Project would result in less-than-significant cumulative impacts related to geology and soils.</p>	<ul style="list-style-type: none"> Impact 3.8-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. Impact 3.8-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would have soils incapable of adequately supporting the use of on-site wastewater treatment systems where sewers are not available for the disposal of wastewater. Impact 3.8-9: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would conflict with the Hillside Management Area Ordinance. Impact 3.8-10: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any cumulative impacts related to geology and soils. 	<ul style="list-style-type: none"> Impact 3.8-7: LTS (same as the Project) because projects facilitated by this alternative could be constructed on expansive soils, and thus could create a substantial risk to life or property if not properly regulated; however, compliance with state and local laws governing new development in the unincorporated County would ensure that impacts related to expansive soils would be less than significant. Impact 3.8-8: LTS (same as the Project) because projects facilitated by this alternative could generate wastewater and include septic tanks or alternative wastewater disposal systems; however, compliance with state and local requirements would ensure that impacts related to adequate soils for supporting such systems would be less than significant. Impact 3.8-9: LTS (same as the Project) because projects facilitated by this alternative could be proposed in designated Hillside Management Areas; however, these projects would be regulated under the HMA Ordinance and subject to the Hillside Design Guidelines on a project-specific basis, which would assure that new projects facilitated by this alternative would not result in a significant impact. Impact 3.8-10: LTS (same as the Project) because cumulative impacts related to geology and soils would result from projects in the County that would combine with projects facilitated by this alternative to create geologic hazards, including unstable geologic conditions, or contribute substantially to erosion; however, cumulative development under this alternative and the surrounding area would be subject to the same local, state, and federal regulations pertaining to geology and soils, including the CBC and County Building Code requirements (or city building code requirements, as appropriate). Therefore, this alternative, in combination with other cumulative projects, would not contribute to a significant cumulative impact. 	<ul style="list-style-type: none"> Impact 3.8-7: LTS (same as the Project) because projects facilitated by this alternative could be constructed on expansive soils, and thus could create a substantial risk to life or property if not properly regulated; however, compliance with state and local laws governing new development in the unincorporated County would ensure that impacts related to expansive soils would be less than significant. Impact 3.8-8: LTS (same as the Project) because projects facilitated by this alternative could generate wastewater and include septic tanks or alternative wastewater disposal systems; however, compliance with state and local requirements would ensure that impacts related to adequate soils for supporting such systems would be less than significant. Impact 3.8-9: LTS (same as the Project) because projects facilitated by this alternative could be proposed in designated Hillside Management Areas; however, these projects would be regulated under the HMA Ordinance and subject to the Hillside Design Guidelines on a project-specific basis, which would assure that new projects facilitated by this alternative would not result in a significant impact. Impact 3.8-10: LTS (same as the Project) because cumulative impacts related to geology and soils would result from projects in the County that would combine with projects facilitated by this alternative to create geologic hazards, including unstable geologic conditions, or contribute substantially to erosion; however, cumulative development under this alternative and the surrounding area would be subject to the same local, state, and federal regulations pertaining to geology and soils, including the CBC and County Building Code requirements (or city building code requirements, as appropriate). Therefore, this alternative, in combination with other cumulative projects, would not contribute to a significant cumulative impact.
3.9	Greenhouse Gas Emissions	<p>Impact 3.9-1: LTS (beneficial effect). The Project would result in an overall decrease in GHG emissions Countywide compared to both the 2015 baseline and the BAU forecasts.</p> <p>Impact 3.9-2: LTS (beneficial effect). The Draft 2045 CAP would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB 2017 Scoping Plan, SB 32, Executive Order S-3-05, the Southern California Association of Governments 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, the CALGreen Code, and Los Angeles County Green Building Ordinance and instead would facilitate projects in furtherance of such plans, policies, and regulations.</p>	<ul style="list-style-type: none"> Overall: + (greater than the Project) Impact 3.9-1: LTS (similar to but greater than the Project) because it would not result in any new GHG emissions; however, it would result in a greater impact because it would not reduce Countywide GHG emissions beyond the adjusted BAU scenario, while the Project would substantially reduce Countywide GHG emissions beyond the adjusted BAU scenario. Specifically, it would result in GHG emission reductions compared to the 2015 baseline of 1.1 million MTCO₂e by 2030 and 1.3 million MTCO₂e by 2035, equal to the adjusted BAU scenario, while the Project would result in GHG emission reductions compared to the 2015 baseline of 2.6 million MTCO₂e by 2030 and 3.3 million MTCO₂e by 2035. Impact 3.9-2: SUM (greater than the Project) because it would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB 2017 Scoping Plan, SB 32, Executive Order S-3-05, and the OurCounty Sustainability Plan. This is because this alternative would not reduce Countywide GHG emissions consistent with the goals and targets of these plans. 	<ul style="list-style-type: none"> Overall: – (similar to but less than the Project) Impact 3.9-1: LTS (similar to but less than the Project) because it would result in an overall decrease in GHG emissions Countywide compared to both the 2015 baseline and the BAU forecasts; however, it would result in a reduced impact because it would likely reduce Countywide GHG emissions more than the Project through the purchase of carbon offsets. Impact 3.9-2: LTS (similar to but less than the Project) because it would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB 2017 Scoping Plan, SB 32, Executive Order S-3-05, the Southern California Association of Governments 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, the CALGreen Code, and Los Angeles County Green Building Ordinance. However, Alternative 1 would result in a reduced impact because it would likely reduce Countywide GHG emissions more than the Project through the purchase of carbon offsets, which would further the aims of the CARB 2017 Scoping Plan, SB 32, Executive Order S-3-05, and the OurCounty Sustainability Plan. 	<ul style="list-style-type: none"> Overall: – (similar to but less than the Project) Impact 3.9-1: LTS (similar to but less than the Project) because it would result in an overall decrease in GHG emissions Countywide compared to both the 2015 baseline and the BAU forecasts. However, this alternative would result in a reduced impact because it would likely reduce Countywide GHG emissions more than the Project through reduced energy use via the operation of ZNE buildings. Impact 3.9-2: LTS (similar to but less than the Project) because it would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB 2017 Scoping Plan, SB 32, Executive Order S-3-05, the Southern California Association of Governments 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, the CALGreen Code, and Los Angeles County Green Building Ordinance. However, Alternative 2 would result in a reduced impact because it would likely reduce Countywide GHG emissions more than the Project through reduced energy use via the operation of ZNE buildings, which would further the aims of the CARB 2017 Scoping Plan, SB 32, Executive Order S-3-05, and the OurCounty Sustainability Plan.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.10	Hazards and Hazardous Materials	<p>Impact 3.10-1: LTS. The Project would not create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials because compliance with federal, state, and local laws regulating the transportation, handling, storage, and disposal of hazardous materials (including as set forth in the Health and Safety Code and related regulations) would assure that impacts would be less than significant.</p> <p>Impact 3.10-2: LTSM. The Project, as a result of solar PV projects facilitated by the Draft 2045 CAP, could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of a toxic metal into the environment if cadmium telluride (CdTe) is used in solar modules and the modules were to release the CdTe in the event of PV panel damage or breakage. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant.</p> <p>Impact 3.10-3: LTSM. The Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses if a solar PV project facilitated by the Draft 2045 CAP were to be built within 0.25 mile of a sensitive land use and if PV solar panels containing CdTe were to be ground up or vaporized in a fire. Compliance with federal, state, and local laws in combination with implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant.</p> <p>Impact 3.10-4: LTS. Projects facilitated by the Draft 2045 CAP may be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but as a result of compliance with federal, state, and local laws, would not create a significant hazard to the public or the environment.</p> <p>Impact 3.10-5: LTS. The Project would not, for a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the Project area. Compliance with FAA requirements and the provisions governing projects proposed in a safety or noise hazard zone delineated in the County ALUP would assure that the impact would be less than significant.</p>	<ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.10-1: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. • Impact 3.10-2: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. • Impact 3.10-3: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. • Impact 3.10-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. • Impact 3.10-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would be located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, and thus would not result in a safety hazard or excessive noise for people residing or working in the Project area. 	<ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.10-1: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 1. The additional carbon offset projects included in Alternative 1 could involve the creation of a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Carbon sequestration projects, water efficiency improvement projects, methane capture, and gas replacement projects facilitated by Alternative 1 all would have little to no risk of release, although investment in solar or wind projects could result in comparable risk to projects facilitated by the Project. Requisite compliance with federal, state, and local laws regulating the transportation, handling, storage, and disposal of hazardous materials would assure that impacts would be less than significant. • Impact 3.10-2: LTSM (same as the Project) because solar PV projects using CdTe panels could be facilitated by the Draft 2045 CAP or by Alternative 1. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. • Impact 3.10-3: LTSM (same as the Project) because solar PV projects using CdTe panels could be facilitated by the Draft 2045 CAP or by Alternative 1. Compliance with federal, state, and local laws in combination with implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. • Impact 3.10-4: LTS (same as the Project) because projects facilitated by Alternative 1 would not likely be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and because, if they were, compliance with federal, state, and local laws would assure that they would not create a significant hazard to the public or the environment. • Impact 3.10-5: LTS (similar to but greater than the Project) because projects facilitated by Alternative 1 could include wind projects built in the region, for which the turbines could result in a safety hazard for people residing or working in the project area; however, requisite compliance with FAA requirements and provisions governing projects proposed in a safety or noise hazard zone, as delineated in an applicable ALUP, would assure that the impact would be less than significant. 	<ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.10-1: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2 would include implementation of additional energy efficiency measures such as air barrier systems, daylighting, sun control and shading design, window selection and glazing, passive solar heating, natural ventilation, and water conservation. These additional measures (as part of Alternative 2) would not create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Compliance with federal, state, and local laws regulating the transportation, handling, storage, and disposal of hazardous materials (including as set forth in the Health and Safety Code and related regulations) would assure that impacts would be less than significant. • Impact 3.10-2: LTSM (same as the Project) the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Rooftop solar installed pursuant to Alternative 2 for on-site generation of renewable energy could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of a toxic metal into the environment if CdTe were used in solar modules and the modules were to release the CdTe in the event of PV panel damage or breakage. The implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. • Impact 3.10-3: LTSM (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Projects facilitated by Alternative 2 could include the installation of solar PV panels containing CdTe on rooftops within 0.25 mile of a sensitive land use. However, given the number of ways Alternative 2 could be achieved, it is more likely that projects facilitated by Alternative 2 would not be pursued if they could result in a risk to sensitive land uses. Further, compliance with federal, state, and local laws in combination with implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. • Impact 3.10-4: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. The additional design elements facilitated by Alternative 2 would increase the likelihood of locating new buildings on sites included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, if one or more new buildings were to be so located, requisite compliance with federal, state, and local laws would assure that no significant hazard to the public or the environment would result. • Impact 3.10-5: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. The additional design elements facilitated by Alternative 2 would not increase the likelihood of locating new buildings or other structures so as to result in a safety hazard or excessive noise for people residing or working in the area. However, should a project be so located, requisite compliance with FAA and ALUP requirements would assure that the impact would be less than significant.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.10 (cont.)	Hazards and Hazardous Materials	<p>Impact 3.10-6: LTSM. With implementation of Mitigation Measure 3.15-1, the Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan because the 2019 County of Los Angeles All-Hazards Mitigation Plan does not include specific evacuation routes, and because a project-specific traffic control plan would be required if construction activities within major roadways as a result of projects facilitated by the Draft 2045 CAP could obstruct major roadways and thereby hinder evacuation procedures. Adherence with the provisions of such a plan would reduce the impact to less than significant.</p> <p>Impact 3.10-7: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to significant cumulative hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials.</p> <p>Impact 3.10-8: LTSM. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, with the implementation of mitigation, would not cause a cumulatively considerable contribution to a significant cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment.</p> <p>Impact 3.10-9: LTSM. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not make a cumulatively considerable contribution to a significant cumulative impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses.</p> <p>Impact 3.10-10: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not make a cumulatively considerable contribution to a significant cumulative impact related to facilitated projects being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not cause or contribute to a significant cumulative hazard to the public or the environment.</p> <p>Impact 3.10-11: LTS. The Draft 2045 CAP would not make a cumulatively considerable contribution to a significant cumulative impact related to safety hazards or excessive noise for people residing or working in the project area.</p> <p>Impact 3.10-12: LTSM. With implementation of a traffic control plan as required by Mitigation Measure 3.15-1, the Draft 2045 CAP would not make a cumulatively considerable contribution to a significant cumulative impact related to impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan.</p>	<ul style="list-style-type: none"> Impact 3.10-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Impact 3.10-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact involving hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Impact 3.10-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact regarding hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. Impact 3.10-9: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. Impact 3.10-10: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Impact 3.10-11: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to safety hazards or excessive noise for people residing or working in the project area. Impact 3.10-12: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan. 	<ul style="list-style-type: none"> Impact 3.10-6: LTSM (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 1. The additional offset projects facilitated by Alternative 1 could impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; however, a project-specific traffic control plan would be required if construction activities within major roadways could obstruct vehicle passage and thereby hinder evacuation procedures. Adherence to the provisions of such a plan, as required by Mitigation Measure 3.15-1, would reduce the impact to less than significant. Impact 3.10-7: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 1. The additional offset projects facilitated by Alternative 1 would not make a cumulatively considerable contribution to significant cumulative hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Impact 3.10-8: LTSM (same as the Project) because projects facilitated by Alternative 1, with the implementation of mitigation, would not make a cumulatively considerable contribution to a substantial cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. Impact 3.10-9: LTSM (same as the Project) because projects facilitated by Alternative 1 would not make a cumulatively considerable contribution to a significant cumulative impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. Impact 3.10-10: LTS (same as the Project) because projects facilitated by Alternative 1 would not make a cumulatively considerable contribution to a significant cumulative impact related to being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not cause or contribute to a significant cumulative hazard to the public or the environment. Impact 3.10-11: LTS (similar to but greater than the Project) because Alternative 1 would not make a cumulatively considerable contribution to a significant cumulative impact related to safety hazards or excessive noise for people residing or working in the project area. Impact 3.10-12: LTSM (same as the Project) because, with implementation of a traffic control plan as required by Mitigation Measure 3.15-1, Alternative 1 would not make a cumulatively considerable contribution to a significant cumulative impact related to impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan. 	<ul style="list-style-type: none"> Impact 3.10-6: LTSM (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. The additional design elements installed as facilitated by Alternative 2 would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Implementation of Mitigation Measure 3.15-1 would not be required. Impact 3.10-7: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. The additional design elements installed as facilitated by Alternative 2 would not make a cumulatively considerable contribution to significant cumulative hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Impact 3.10-8: LTSM (same as the Project) because Alternative 2, with the implementation of mitigation, would not make a cumulatively considerable contribution to a substantial cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. Impact 3.10-9: LTSM (same as the Project) because Alternative 2, with the implementation of mitigation, would not make a cumulatively considerable contribution to a significant cumulative impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. Impact 3.10-10: LTS (same as the Project) because Alternative 2 would not make a cumulatively considerable contribution to a significant cumulative impact related to being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Impact 3.10-11: LTS (same as the Project) because Alternative 2 would not make a cumulatively considerable contribution to a significant cumulative impact related to safety hazards or excessive noise for people residing or working in the project area. Impact 3.10-12: LTSM (same as the Project) because Alternative 2 would not make a cumulatively considerable contribution to a significant cumulative impact related to impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan. Implementation of Mitigation Measure 3.15-1 would not be required.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.11	Hydrology and Water Quality	<p>Impact 3.11-1: LTS. The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, because requisite compliance with federal, state and local laws (including the Construction General Permit, Green Building Code, and Los Angeles County Municipal Separate Storm Water System [MS4] Permit and low impact development [LID] requirements) would assure that the impact would be less than significant.</p> <p>Impact 3.11-2: LTS. The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin because, on the contrary, some projects facilitated by the Project would have a beneficial effect on groundwater supplies and because LA County has numerous regulations in place, including the LID ordinance, requiring that facilities be designed to facilitate on-site infiltration. Although renewable energy and other projects facilitated by the Draft 2045 CAP could have a modest impact on water demand, the population that would potentially use groundwater supplies would not exceed forecasts and the demand would be low, within safe yield, or more likely met by a source other than groundwater.</p> <p>Impact 3.11-3: LTS. The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of a Federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding. Requisite compliance with federal, state, and local requirements would assure that the impact would be less than significant.</p> <p>Impact 3.11-4: LTS. The Project would not otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements.</p> <p>Impact 3.11-5: LTSM. The Project would not, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation because compliance with federal, state, and local requirements, in addition to Mitigation Measure 3.10-2, which would ensure that hazardous waste is properly stored, would reduce the impact to less than significant.</p> <p>Impact 3.11-6: LTS. The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan because the impacts of projects facilitated by the Draft 2045 CAP already have been analyzed pursuant to and would be consistent with the General Plan land use assumptions (including the Housing Element) and SCAG's Connect SoCal projections. Further, any future projects would be subject to the independently enforceable requirements of the of the basin plan and the SGMA.</p>	<ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.11-1: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. • Impact 3.11-2: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. • Impact 3.11-3: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would substantially alter the existing drainage pattern of the site or area in any of the specified ways. • Impact 3.11-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas, so as to require additional flood proofing and flood insurance. • Impact 3.11-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would, in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation. • Impact 3.11-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. 	<ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.11-1: LTS (same as the Project) because projects facilitated by Alternative 1, including its carbon offset purchases, would be required to comply with federal, state and local laws (including the Construction General Permit, Green Building Code, and Los Angeles County MS4 Permit and LID requirements), which would assure that the impact would be less than significant. Further, projects to increase or protect carbon sequestration, improve water efficiency, capture methane at animal farms or landfills, and replace high global warming potential (GWP) gas use with a gas that has a lower GWP would be less likely to have a direct impact on water quality standards, waste discharge requirements, or surface or groundwater quality because they would tend to reduce water demand or increase ground surface impermeability. • Impact 3.11-2: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the alternative would impede sustainable groundwater management of the basin. Projects to increase or protect carbon sequestration, improve water efficiency, capture methane at animal farms or landfills, and replace high-GWP gas use with a gas that has a lower GWP would be less likely to increase ground surface impermeability. • Impact 3.11-3: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would be among the types of projects that would be less likely to substantially alter the existing drainage pattern of the site or area. In any event, requisite compliance with federal, state, and local requirements would ensure that the impact would be less than significant. • Impact 3.11-4: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas. • Impact 3.11-5: LTSM (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone because compliance with federal, state, and local requirements, together with implementation of Mitigation Measure 3.10-2, would reduce the impact to less than significant. • Impact 3.11-6: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, because consistency with independently applicable requirements would assure that the impact would be less than significant. 	<ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.11-1: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building design elements to reduce energy demand would include high-performance building envelopes, air barrier systems, daylighting, sun control and shading design, window selection and glazing, passive solar heating, natural ventilation, and water conservation. Only the energy needs remaining after the implementation of these types of design elements would need to be satisfied by on-site renewable energy generation and storage. This prioritization would reduce water demand and new construction that could affect surface or groundwater quality. Requisite compliance with federal, state, and local laws would assure that the impact would be less than significant. • Impact 3.11-2: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building energy efficiency measures would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the alternative would impede sustainable groundwater management of the basin. Energy demand reduction measures would not significantly increase ground surface impermeability. • Impact 3.11-3: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building energy efficiency measures would not substantially alter the existing drainage pattern of the site or area because projects facilitated by Alternative 2 would focus primarily on existing building envelopes. In any event, requisite compliance with federal, state, and local requirements would assure that the impact would be less than significant. • Impact 3.11-4: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building energy efficiency measures would not place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas. Work would occur primarily in existing building envelopes, and any remaining renewable energy projects facilitated by Alternative 2 to close the gap would have a less-than-significant impact for the same reasons as renewable energy projects facilitated by the Draft 2045 CAP. • Impact 3.11-5: LTSM (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building energy efficiency measures would not risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone because compliance with federal, state, and local requirements, together with implementation of Mitigation Measure 3.10-2, would reduce the impact to less than significant. • Impact 3.11-6: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building energy efficiency measures would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Consistency with independently applicable requirements would assure that the impact would be less than significant.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.11 (cont.)	Hydrology and Water Quality	<p>Impact 3.11-7: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.</p> <p>Impact 3.11-8: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative decreases in groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede the sustainable groundwater management of the basin.</p> <p>Impact 3.11-9: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative alterations to the existing drainage pattern of the site or area.</p> <p>Impact 3.11-10: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative placement of structures in Federal 100-year flood hazard or County Capital Flood floodplain areas, which would require additional flood proofing and flood insurance requirements.</p> <p>Impact 3.11-11: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation.</p> <p>Impact 3.11-12: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.</p>	<ul style="list-style-type: none"> Impact 3.11-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to cumulative violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Impact 3.11-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative decrease in groundwater supplies, or substantially interfere with groundwater recharge such that they may impede sustainable groundwater management of the basin. Impact 3.11-9: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative alterations to the existing drainage pattern of the site or area. Impact 3.11-10: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to the placement of structures in Federal 100-year flood hazard or County Capital Flood floodplain areas. Impact 3.11-11: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to a risk of releasing pollutants due to a project inundation condition in a flood hazard, tsunami, or seiche zone. Impact 3.11-12: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to a conflict with or obstruction of implementation of a water quality control plan or sustainable groundwater management plan. 	<ul style="list-style-type: none"> Impact 3.11-7: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative violation of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Impact 3.11-8: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative decrease in groundwater supplies or substantial interference with groundwater recharge such that Alternative 1 could impede sustainable groundwater management of the basin. Impact 3.11-9: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative alterations to the existing drainage pattern of the site or area. Impact 3.11-10: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative placement of structures in Federal 100-year flood hazard or County Capital Flood floodplain areas that would require additional flood proofing and flood insurance requirements. Impact 3.11-11: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation. Impact 3.11-12: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. 	<ul style="list-style-type: none"> Impact 3.11-7: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative violation of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Impact 3.11-8: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative decrease in groundwater supplies or substantial interference with groundwater recharge such that Alternative 2 could impede sustainable groundwater management of the basin. Impact 3.11-9: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative alterations to the existing drainage pattern of the site or area. Impact 3.11-10: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative placement structures in Federal 100-year flood hazard or County Capital Flood floodplain areas that would require additional flood proofing and flood insurance requirements. Impact 3.11-11: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation. Impact 3.11-12: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
3.12	Land Use and Planning	<p>Impact 3.12-1: LTS. The Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact because the Draft 2045 CAP furthers the vision and goals of the OurCounty Sustainability Plan, would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan (as proposed for revision by the Project), and would be consistent with SCAG's 2045 RTP/SCS.</p> <p>Impact 3.12-2: LTS. The Project would not cause or contribute to a significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact because there is no existing significant cumulative impact in this regard, and the Project's incremental less-than-significant contribution, in combination with the incremental impacts of other cumulative projects, would not cause one.</p>	<ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.12-1: No impact (less than the Project) because the No Project Alternative would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. Impact 3.12-2: No impact (less than the Project) because the No Project Alternative would not cause or contribute to a significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. 	<ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.12-1: LTS (same as the Project) because projects facilitated by Alternative 1 would need to consistent with the General Plan and other land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental impact. Impact 3.12-2: LTS (same as the Project) because Alternative 1's less-than-significant incremental contribution to cumulative land use and planning impacts would not cause or contribute to any significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. 	<ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.12-1: LTS (same as the Project) because projects facilitated by Alternative 2 would need to consistent with the General Plan and other land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental impact. Impact 3.12-2: LTS (same as the Project) because Alternative 2's less-than-significant incremental contribution to cumulative land use and planning impacts would not cause or contribute to any significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.13	Noise	<p>Impact 3.13-1: SU. Projects facilitated by the Draft 2045 CAP would result in short-term construction noise that could exceed noise levels in excess of standards and would create new stationary noise sources that could exceed noise levels in excess of standards; Mitigation Measure 3.13-1 and 3.13-2 would reduce these impacts, but not necessarily to less-than-significant levels. The Draft 2045 CAP would likely not create any new roadway traffic that could exceed noise levels in excess of standards.</p> <p>Impact 3.13-2: SU. Projects facilitated by the Draft 2045 CAP would result in construction groundborne vibration and groundborne noise levels that could exceed standards; Mitigation Measure 3.13-3 would reduce this impact, but not necessarily to less-than-significant levels. This alternative would likely not result in any groundborne vibration from roadway traffic or stationary mechanical equipment.</p> <p>Impact 3.13-3: SU. Projects facilitated by the Draft 2045 CAP would combine with noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. Mitigation Measures 3.13-1 and 3.13-2 would reduce this impact, but not necessarily to less-than-significant levels.</p> <p>Impact 3.13-4: SU. Projects facilitated by the Draft 2045 CAP would combine with groundborne vibration and groundborne noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. Mitigation Measure 3.13-4 and 3.13-5 would reduce this impact, but not necessarily to less-than-significant levels.</p>	<ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.13-1: No impact (less than the Project) because the No Project Alternative would not result in any short-term construction noise that could exceed noise levels in excess of standards; would not increase traffic volumes on local roadways, and therefore would not result in a 3 dBA increase in roadway noise levels; and would not create any new stationary noise sources that could exceed noise levels in excess of standards. • Impact 3.13-2: No impact (less than the Project) because the No Project Alternative would not result in any construction groundborne vibration and groundborne noise levels in excess of standards and would not result in any groundborne vibration operations. • Impact 3.13-3: No impact (less than the Project) because the No Project Alternative would not result in any new construction or operational noise that would combine with noise from nearby projects. • Impact 3.13-4: No impact (less than the Project) because the No Project Alternative would not result in any new construction or operational groundborne vibration and groundborne noise that would combine with groundborne vibration and groundborne noise from nearby projects. 	<ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.13-1: SU (same as the Project) because projects facilitated by Alternative 1 would result in short-term construction noise that could exceed noise levels in excess of standards and would create new stationary noise sources that could exceed noise levels in excess of standards; Mitigation Measure 3.13-1 and 3.13-2 would reduce these impacts, but not necessarily to less-than-significant levels. Alternative 1 would likely not create any new roadway traffic that could exceed noise levels in excess of standards. • Impact 3.13-2: SU (same as the Project) because projects facilitated by Alternative 1 would result in construction groundborne vibration and groundborne noise levels that could exceed standards; Mitigation Measure 3.13-3 would reduce this impact, but not necessarily to less-than-significant levels. Alternative 1 would likely not result in any groundborne vibration from roadway traffic or stationary mechanical equipment. • Impact 3.13-3: SU (same as the Project) because projects facilitated by Alternative 1 would combine with noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. Mitigation Measures 3.13-1 and 3.13-2 would reduce the contribution of Alternative 1 to the cumulative impact, but not necessarily to less-than-significant levels. • Impact 3.13-4: SU (same as the Project) because projects facilitated by Alternative 1 would combine with groundborne vibration and groundborne noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. Mitigation Measures 3.13-4 and 3.13-5 would reduce this impact, but not necessarily to less-than-significant levels. 	<ul style="list-style-type: none"> • Overall: + (similar to but greater than the Project) • Impact 3.13-1: SU (similar to but greater than the Project) because projects facilitated by Alternative 2 would result in short-term construction noise that could exceed noise levels in excess of standards and would create new stationary noise sources that could exceed noise levels in excess of standards. Such projects would likely not create any new roadway traffic that could exceed noise levels in excess of standards. However, this alternative would likely result in a greater noise impact associated with construction because it would involve additional construction for ZNE buildings. Mitigation Measures 3.13-1 and 3.13-2 would reduce these impacts, but not necessarily to less-than-significant levels. • Impact 3.13-2: SU (similar to but greater than the Project) because projects facilitated by Alternative 2 would result in construction-related groundborne vibration and groundborne noise levels that could exceed standards. Such projects would likely not result in any groundborne vibration from roadway traffic or stationary mechanical equipment. However, this alternative would likely result in a groundborne vibration impact associated with construction because it would involve additional construction for ZNE buildings. Mitigation Measure 3.13-3 would reduce this impact, but not necessarily to less-than-significant levels. • Impact 3.13-3: SU (similar to but greater than the Project) because projects facilitated by Alternative 2 would combine with noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. However, this alternative would likely result in a greater noise impact associated with construction because it would involve additional construction for ZNE buildings. Mitigation Measures 3.13-1 and 3.13-2 would reduce this impact, but not necessarily to less-than-significant levels. • Impact 3.13-4: SU (similar to but greater than the Project) because projects facilitated by Alternative 2 would combine with groundborne vibration and groundborne noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. However, this alternative would likely result in a groundborne vibration impact associated with construction because it would involve additional construction for ZNE buildings. Mitigation Measures 3.13-4 and 3.13-5 would reduce this impact, but not necessarily to less-than-significant levels.
3.14	Population and Housing	<p>Impact 3.14-1: LTS. The Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) because any construction facilitated by the Project would be consistent with levels anticipated in the existing General Plan and zoning.</p> <p>Impact 3.14-2: LTS. The Project would not displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere, because any construction facilitated by the Project would be consistent with levels anticipated in the existing General Plan and zoning.</p>	<ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.14-1: No impact (less than the Project) because the No Project Alternative would not induce population growth. • Impact 3.14-2: No impact (less than the Project) because the No Project Alternative would not displace existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. 	<ul style="list-style-type: none"> • Overall: – (same as the Project) • Impact 3.14-1: LTS (same as the Project) because projects facilitated by Alternative 1, including its carbon offset purchases, would not directly or indirectly induce substantial unplanned population growth in an area. Any construction facilitated by Alternative 1 would need to be consistent with levels anticipated in the existing General Plan and zoning and could be developed outside the County. • Impact 3.14-2: LTS (same as the Project) because projects facilitated by Alternative 1 would have to be consistent with population levels planned for in the existing General Plan and zoning assumptions, or might be developed outside the County. 	<ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.14-1: LTS (same as the Project) because projects facilitated by Alternative 2 would need to be consistent with levels anticipated in the existing General Plan and zoning and so would not directly or indirectly induce substantial unplanned population growth in an area. • Impact 3.14-2: LTS (same as the Project) because projects facilitated by Alternative 2 would have to be consistent with population levels planned for in the existing General Plan and zoning assumptions.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.14 (cont.)	Population and Housing	<p>Impact 3.14-3: LTS. The Project would not cause or make a cumulatively considerable contribution to any significant cumulative impact relating to the inducement of substantial unplanned population growth in an area, either directly or indirectly.</p> <p>Impact 3.14-4: LTS. The Project would not cause or make a cumulatively considerable contribution to any significant cumulative impact relating to displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.</p>	<ul style="list-style-type: none"> Impact 3.14-3: No impact (less than the Project) because the No Project Alternative would contribute no impact to cumulative conditions relating to unplanned population growth inducement. Impact 3.14-4: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the displacement of existing people or housing. 	<ul style="list-style-type: none"> Impact 3.14-3: LTS (same as the Project) because projects facilitated by Alternative 1 would not cause or make a cumulatively considerable contribution to any significant cumulative impact related to the direct or indirect inducement of substantial unplanned population growth in an area. Impact 3.14-4: LTS (same as the Project) because projects facilitated by Alternative 1 would not cause or make a cumulatively considerable contribution to any significant cumulative impact related to displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. 	<ul style="list-style-type: none"> Impact 3.14-3: LTS (same as the Project) because projects facilitated by Alternative 2 would not cause or make a cumulatively considerable contribution to any significant cumulative impact related to the direct or indirect inducement of substantial unplanned population growth in an area. Impact 3.14-4: LTS (same as the Project) because projects facilitated by Alternative 2 would not cause or make a cumulatively considerable contribution to any significant cumulative impact related to displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.
3.15	Transportation	<p>Impact 3.15-1: LTSM. Projects facilitated by the Draft 2045 CAP could conflict with an applicable program plan, ordinance, or policy addressing the circulation system. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant.</p> <p>Impact 3.15-2: LTS. The Draft 2045 CAP would support implementation of transportation-related goals, policies, and programs that are already contained in other planning documents, and the implementation of such goals, policies, and programs would reduce Countywide VMT by approximately 4 percent as compared to baseline Countywide VMT, furthering the state's goals to achieve reductions in GHG emissions as they relate to VMT generated by transportation.</p> <p>Impact 3.15-3: LTSM. Projects facilitated by the Draft 2045 CAP could introduce the construction and increase the amount of heavy-duty construction vehicles on roadways, which could substantially increase hazards due to incompatible uses with normal vehicles on roadways. Mitigation Measure 3.15-1 would substantially reduce any potentially hazardous conditions for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated projects facilitated by the alternative, reducing this impact to less than significant.</p> <p>Impact 3.15-4: LTSM. Projects facilitated by the Draft 2045 CAP could affect the circulation system to cause or contribute to a significant cumulative impact. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by this alternative, reducing this impact to less than significant.</p> <p>Impact 3.15-5: LTSM. Projects facilitated by the Draft 2045 CAP, such as Measures T1 through T5, would tend to reduce rather than increase VMT and otherwise present a minimal increase compared to the impacts of other project types. Under this alternative, the implementation of cumulative development projects would have the potential to increase VMT due to additional vehicle trips associated with growth and development in the County. Mitigation Measure 3.15-1 would reduce this impact to less than significant.</p>	<ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.15-1: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would conflict with an applicable program plan, ordinance, or policy addressing the circulation system. Impact 3.15-2: No impact (greater than the Project) because the No Project Alternative would not reduce Countywide VMT, while the Project would reduce Countywide VMT. Impact 3.15-3: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would introduce any design features or activities that could result in hazardous conditions to motorists, transit operators, bicyclists, or pedestrians. Impact 3.15-4: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to a conflict with an applicable program plan, ordinance, or policy addressing the circulation system. Impact 3.15-5: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to VMT. 	<ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.15-1: LTSM (same as the Project) because projects facilitated by Alternative 1 could conflict with an applicable program plan, ordinance, or policy addressing the circulation system. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant. Impact 3.15-2: LTS (similar to but less than the Project) because projects facilitated by Alternative 1 would result in a net reduction of VMT compared to baseline Countywide VMT, furthering the state's goals to achieve reductions in GHG emissions as they relate to VMT generated by transportation. However, Alternative 1 could result in a reduced impact because some carbon offset projects with reduced VMT could replace projects otherwise facilitated by the Project. Impact 3.15-3: LTSM (same as the Project) because projects facilitated by Alternative 1 could introduce construction and increase the amount of heavy-duty construction vehicles on roadways, which could substantially increase hazards due to incompatible uses with normal vehicles on roadways. Mitigation Measure 3.15-1 would substantially reduce any potentially hazardous conditions for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant. Impact 3.15-4: LTSM (same as the Project) because projects facilitated by Alternative 1 could affect the circulation system to cause or contribute to a significant cumulative impact. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by Alternative 1, reducing this impact to less than significant. Impact 3.15-5: LTSM (similar to but less than the Project) because projects facilitated by Alternative 1, such as Measures T1 through T5, would tend to reduce rather than increase VMT and otherwise present a minimal increase compared to the impacts of other project types. Under Alternative 1, the implementation of cumulative projects would have the potential to increase VMT due to additional vehicle trips associated with growth and development in the County. However, Alternative 1 could result in a reduced impact as compared to the Project because some carbon offset projects could be developed in lieu of projects otherwise facilitated by the Project that have reduced VMT relative to the Project. Mitigation Measure 3.15-1 would reduce this impact to less than significant. 	<ul style="list-style-type: none"> Overall: + (similar to but greater than the Project) Impact 3.15-1: LTSM (same as the Project) because projects facilitated by Alternative 2 could conflict with an applicable program plan, ordinance, or policy addressing the circulation system. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant. Impact 3.15-2: LTS (same as the Project) because projects facilitated by Alternative 2 would result in a net reduction of VMT compared to baseline Countywide VMT, furthering the state's goals to achieve reductions in GHG emissions as they relate to VMT generated by transportation. Impact 3.15-3: LTSM (similar to but greater than the Project) because projects facilitated by Alternative 2 could introduce construction and increase the amount of heavy-duty construction vehicles on roadways, which could substantially increase hazards due to incompatible uses with normal vehicles on roadways; however, this alternative would likely result in a greater impact because it would involve additional construction for ZNE buildings. Mitigation Measure 3.15-1 would substantially reduce any potentially hazardous conditions for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant. Impact 3.15-4: LTSM (same as the Project) because projects facilitated by Alternative 2 could affect the circulation system to cause or contribute to a significant cumulative impact; Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by Alternative 2, reducing this impact to less than significant. Impact 3.15-5: LTSM (same as the Project) because projects facilitated by Alternative 2, such as Measures T1 through T5, would tend to reduce rather than increase VMT and otherwise present a minimal increase compared to the impacts of other project types. Under Alternative 2, the implementation of cumulative development projects would have the potential to increase VMT due to additional vehicle trips associated with growth and development in the County. Mitigation Measure 3.15-1 would reduce this impact to less than significant.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.15 (cont.)	Transportation	Impact 3.15-6: LTSM. Projects facilitated by the Draft 2045 CAP could create safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians during construction activities. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns, reducing this impact to less than significant.	<ul style="list-style-type: none"> Impact 3.15-6: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians. 	<ul style="list-style-type: none"> Impact 3.15-6: LTSM (same as the Project) because projects facilitated by Alternative 1 could create safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians during construction activities. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns, reducing this impact to less than significant. 	<ul style="list-style-type: none"> Impact 3.15-6: LTSM (similar to but greater than the Project) because projects facilitated by Alternative 2 could create safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians during construction activities; this alternative would likely result in a greater impact because it would involve additional construction for ZNE buildings. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns, reducing this impact to less than significant.
3.16	Tribal Cultural Resources	<p>Impact 3.16-1: LTSM. With implementation of Mitigation Measure 3.16-1, which would require AB 52 consultation in appropriate circumstances, the Project would cause a less-than-significant impact related to a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by LA County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). No tribal cultural resources listed or eligible for listing in the California Register or Los Angeles County Historical Landmarks Registry were identified within the study area as a result of consultations, and LA County has not made any discretionary significance determinations for purposes of this CEQA analysis of the Draft 2045 CAP. Implementing Mitigation Measure 3.16-1 would ensure that tribal cultural resources are properly identified and addressed pursuant to the later consideration of individual projects facilitated by the Draft 2045 CAP.</p> <p>Impact 3.16-2: LTSM. The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a cumulatively considerable contribution to a significant cumulative impact caused by an adverse change in the significance of a tribal cultural resource or of a resource determined by LA County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). The Project's significant contribution to this cumulative impact would be reduced to a less-than-significant level with implementation of Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6.</p>	<ul style="list-style-type: none"> Overall: = (less than the Project) Impact 3.16-1: No impact (less than the Project) because the No Project Alternative would not facilitate any project that could cause a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by LA County to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). Impact 3.16-2: No impact (less than the Project) because the No Project Alternative would result in no incremental contribution to any significant impact regarding a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by LA County to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). 	<ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.16-1: LTSM (same as the Project) for the same reasons as explained for the Project. Impact 3.16-2: LTSM (same as the Project) for the same reasons as explained for the Project. 	<ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.16-1: LTSM (same as the Project) for the same reasons as explained for the Project. Impact 3.16-2: LTSM (same as the Project) for the same reasons as explained for the Project.
3.17	Utilities and Service Systems	<p>Impact 3.17-1: SU. The Draft 2045 CAP would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. However, projects facilitated by the Draft 2045 CAP could include ground-mounted, utility-scale solar projects that have been determined in various sections of the Draft EIR to result in significant impacts on environmental resources including air quality, biological resources, cultural resources, water quality, noise, and transportation. Implementation of the identified mitigation measures would reduce related impacts, but not to a less-than-significant level.</p> <p>Impact 3.17-2: LTS. The Draft 2045 CAP would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years because projects facilitated by the Draft 2045 CAP would substantially reduce municipal, agricultural, industrial, and outdoor landscaping water use.</p>	<ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.17-1: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Impact 3.17-2: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would have insufficient water supplies available. 	<ul style="list-style-type: none"> Overall: + (similar to but greater than the Project) Impact 3.17-1: SU (same as the Project) because projects facilitated by Alternative 1 could require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Implementation of the identified mitigation measures would reduce this impact, but not to a less-than-significant level. Further, the carbon offset projects that would be facilitated by Alternative 1 could include solar or wind projects, as well as methane capture and energy efficiency projects, that could cause impacts on various resource areas that would be greater than under the Project as proposed. Impact 3.17-2: LTS (same as the Project) because projects facilitated by Alternative 1 would have sufficient water supplies to serve Alternative 1 and reasonably foreseeable future development during normal, dry, and multiple dry years. Such projects would increase or protect carbon sequestration and/or improve water or energy efficiency and would thereby reduce municipal, agricultural, industrial, and outdoor landscaping water use. 	<ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.17-1: SU (same as the Project) because the ZNE building efficiency projects facilitated by Alternative 2 could require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, as a result of new construction or relocation of buildings facilitated by Alternative 2. Implementation of the identified mitigation measures would reduce this impact, but not to a less-than-significant level. Impact 3.17-2: LTS (same as the Project) because projects facilitated by Alternative 2 would have sufficient water supplies to serve Alternative 2 and reasonably foreseeable future development during normal, dry, and multiple dry years. Such projects would improve water efficiency and would thereby reduce municipal, agricultural, industrial, and outdoor landscaping water use.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.17 (cont.)	Utilities and Service Systems	<p>Impact 3.17-3: LTS. The Draft 2045 CAP would not result in a determination by the wastewater treatment provider that serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. The Draft 2045 CAP includes measures to increase water conservation, which could result in a slight decrease in the amount of wastewater requiring treatment by wastewater treatment providers. The impacts of development of other projects facilitated by the Draft 2045 CAP would be evaluated on an individual basis once sufficient site-specific, project-specific information is known.</p> <p>Impact 3.17-4: LTS. The Draft 2045 CAP would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals because its measures and actions encourage the reduction of solid waste. The Draft 2045 CAP could facilitate the construction of facilities to meet goals for water recycling, waste diversion, and renewable energy (which facilities could result in waste generated by project construction and operation); however, such projects would be required to comply with the waste management measures proposed in the Draft 2045 CAP.</p> <p>Impact 3.17-5: SU. Projects facilitated by the Draft 2045 CAP would cause or contribute a cumulatively considerable contribution to a significant cumulative impact related to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Implementation of the identified mitigation measures would reduce related impacts, but not to a less-than-significant level.</p> <p>Impact 3.17-6: LTS. The Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact related to insufficient water supplies.</p> <p>Impact 3.17-7: LTS. The Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact related to inadequate wastewater treatment capacity.</p> <p>Impact 3.17-8: LTS. The Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact related to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.</p>	<ul style="list-style-type: none"> Impact 3.17-3: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would result in a determination by the wastewater treatment provider that serves or may serve the area that it has adequate capacity to serve projected demand in addition to the provider's existing commitments. Impact 3.17-4: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impact 3.17-5: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Impact 3.17-6: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to insufficient water supplies. Impact 3.17-7: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to inadequate wastewater treatment capacity. Impact 3.17-8: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. 	<ul style="list-style-type: none"> Impact 3.17-3: LTS (same as the Project) because projects facilitated by Alternative 1 would result in a determination by the wastewater treatment provider that serves or may serve the area that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. Alternative 1 would improve water efficiency, which could result in a slight decrease in the amount of wastewater requiring treatment by wastewater treatment providers. The impacts of development of other projects facilitated by Alternative 1 would be evaluated on an individual basis once sufficient site-specific, project-specific information becomes known. Impact 3.17-4: LTS (similar to but greater than the Project) because projects facilitated by Alternative 1 would not encourage the reduction of solid waste like those facilitated by the Project, and instead would focus on the purchase of carbon offsets. Requisite consistency with the General Plan and applicable zoning requirements would assure that the impacts of projects facilitated by Alternative 1 would be less than significant; or such projects would be subject to mitigation measures or conditions of approval imposed as part of any project-specific review, to assure that the projects would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impact 3.17-5: SU (same as the Project) because projects facilitated by Alternative 1 would cause or contribute to a significant cumulative impact related to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Implementation of the identified mitigation measures would reduce related impacts, but not to a less-than-significant level. Impact 3.17-6: LTS (same as the Project) because projects facilitated by Alternative 1 would not cause or contribute to any significant cumulative impact related to insufficient water supplies. Impact 3.17-7: LTS (same as the Project) because projects facilitated by Alternative 1 would not cause or contribute to any significant cumulative impact related to inadequate wastewater treatment capacity. Impact 3.17-8: LTS (same as the Project) because projects facilitated by Alternative 1 would not cause or contribute to any significant cumulative impact related to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. 	<ul style="list-style-type: none"> Impact 3.17-3: LTS (same as the Project) because projects facilitated by Alternative 2 would result in a determination by the wastewater treatment provider that serves or may serve the area that it has adequate capacity to serve the projected demand in the area as well as the provider's existing commitments. Alternative 2 would improve water efficiency, which could result in a slight decrease in the amount of wastewater requiring treatment by wastewater treatment providers. The impacts of development of other projects facilitated by Alternative 2 would be evaluated on an individual basis once sufficient site-specific, project-specific information becomes known. Impact 3.17-4: LTS (similar to but greater than the Project) because projects facilitated by Alternative 2 would not encourage the reduction of solid waste like those facilitated by the Project, and instead would focus on water and energy efficiencies. Requisite consistency with the General Plan and applicable zoning requirements would assure that the impacts of projects facilitated by Alternative 2 would be less than significant; or such projects would be subject to mitigation measures or conditions of approval imposed as part of any project-specific review, to assure that the projects would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impact 3.17-5: SU (same as the Project) because projects facilitated by Alternative 2 would cause or contribute to a significant cumulative impact related to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Implementation of the identified mitigation measures would reduce related impacts, but not to a less-than-significant level. Impact 3.17-6: LTS (same as the Project) because projects facilitated by Alternative 2 would not cause or contribute to any significant cumulative impact related to insufficient water supplies. Impact 3.17-7: LTS (same as the Project) because projects facilitated by Alternative 3 would not cause or contribute to any significant cumulative impact related to inadequate wastewater treatment capacity. Impact 3.17-8: LTS (same as the Project) because projects facilitated by Alternative 2 would not cause or contribute to any significant cumulative impact related to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.18	Wildfire	<p>Impact 3.18-1: LTSM. Projects facilitated by the Draft 2045 CAP would substantially impair an adopted emergency response plan or emergency evacuation plan; however, because such projects would have to comply with requirements of the LACoFD Strategic Plan and prepare a traffic control plan as required by Mitigation Measure 3.15-1, the Project would avoid or substantially reduce any potential impairment of an emergency response or evacuation plan that may result during construction activities. Any impacts would be identified and addressed before a related impact would occur.</p> <p>Impact 3.18-2: LTS. The Draft 2045 CAP would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thus would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Projects facilitated by the Draft 2045 CAP would have to comply with General Plan policies that are intended to reduce the potential for development to be located in high-fire-hazard areas, and that encourage mitigation to ensure that developments are built to be fire resistant and capable of ensuring proper ingress and egress and sufficient fire suppression resources on-site. Requisite compliance with state and local laws would further assure that the impact would be less than significant.</p> <p>Impact 3.18-3: LTSM. The Draft 2045 CAP would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment, because any new development within the County (including the unincorporated areas) would be subject to the Los Angeles County Fire Code. Fire Code compliance would ensure that projects facilitated by the Draft 2045 CAP in the unincorporated areas would occur in areas with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet flow standards (in the event that a fire needs to be extinguished). Such compliance would also ensure that developments within mapped very high fire hazard severity zones are properly inspected, obtain the applicable permits, and abide by fire prevention technique. Nonetheless, projects facilitated by the Draft 2045 CAP could result in a significant impact in this regard. Implementing Mitigation Measure 3.18-3, which would require any project applicant to prepare a fire prevention plan, would ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by Draft 2045 CAP measures and actions.</p> <p>Impact 3.18-4: LTS. The Draft 2045 CAP would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Requisite compliance with applicable laws, regulations, and ordinances would assure that new projects implementing Draft 2045 CAP measures would not result in a significant impact.</p> <p>Impact 3.18-5: LTSM. Projects facilitated by Draft 2045 CAP measures and actions would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Requisite compliance with the Los Angeles County Fire Code, the California Building Code, and policies in the General Plan would reduce the impact and, together with implementation of Mitigation Measure 3.18-3, would reduce the impact of any projects facilitated by the Draft 2045 CAP in the unincorporated areas to less than significant.</p>	<ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.18-1: No impact (less than the Project) because the No Project Alternative would not facilitate any project that would substantially impair an adopted emergency response plan or emergency evacuation plan. • Impact 3.18-2: No impact (less than the Project) because the No Project Alternative would not facilitate any project that would, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thus would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. • Impact 3.18-3: No impact (less than the Project) because the No Project Alternative would not facilitate any project that would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment. • Impact 3.18-4: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. • Impact 3.18-5: LTS. No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. 	<ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.18-1: LTSM (similar to but less than the Project) because the carbon offset projects facilitated by Alternative 1 could be developed outside the County, and would reduce land disturbance by increasing carbon sequestration. Renewable energy projects facilitated by Alternative 1 would result in the same impacts as renewable energy projects facilitated by the Draft 2045 CAP. Requirements of the LACoFD Strategic Plan, other state and local laws, and Mitigation Measure 3.15-1 would continue to apply. • Impact 3.18-2: LTS (same as the Project) because the carbon offset projects facilitated by Alternative 1 would have the same potential to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to their location. Like the projects facilitated by the Draft 2045 CAP, projects facilitated by Alternative 1 would have to comply with General Plan policies that are intended to reduce the potential for development to be located in high-fire-hazard areas, and that encourage mitigation to ensure that developments are built to be fire resistant and capable of ensuring proper ingress and egress and sufficient fire suppression resources on-site. Requisite compliance with state and local laws would further assure that the impact would be less than significant. • Impact 3.18-3: LTSM (same as the Project) because the carbon offset projects facilitated by Alternative 1 could include the development of renewable energy projects that would have the same potential to exacerbate fire risk or result in temporary or ongoing impacts on the environment due to their location. Implementing Mitigation Measure 3.18-3, which would require any project applicant to prepare a fire prevention plan, would ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by measures and actions included in Alternative 1. • Impact 3.18-4: LTS (same as the Project) because projects facilitated by Alternative 1 would have the same potential to expose people or structures to significant risks, and would be subject to the same laws, regulations, and ordinances, which would ensure that the impact would be less than significant. • Impact 3.18-5: LTSM (same as the Project) because projects facilitated by Alternative 1 would have the same potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Requisite compliance with the Los Angeles County Fire Code, the California Building Code, policies in the General Plan, and Mitigation Measure 3.18-3 would reduce this impact to less than significant. 	<ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.18-1: LTSM (same as the Project) because projects facilitated by the ZNE building efficiency measures in Alternative 2 (whether as new-builds or retrofits) would be subject to the requirements of the LACoFD Strategic Plan, other state and local laws, and Mitigation Measure 3.15-1 to reduce this impact to less than significant. • Impact 3.18-2: LTS (same as the Project) because projects facilitated by the ZNE building efficiency measures in Alternative 2 would have the same potential to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to their location. Like the projects facilitated by the Draft 2045 CAP, projects facilitated by Alternative 2 would have to comply with General Plan policies that are intended to reduce the potential for development to be located in high-fire-hazard areas, and that encourage mitigation to ensure that developments are built to be fire resistant and capable of ensuring proper ingress and egress and sufficient fire suppression resources on-site. Requisite compliance with state and local laws would further assure that the impact would be less than significant. • Impact 3.18-3: LTSM (same as the Project) because projects facilitated by the ZNE building efficiency measures in Alternative 2 could include the development of renewable energy projects that would have the same potential to exacerbate fire risk or result in temporary or ongoing impacts on the environment due to their location. Nonetheless, projects facilitated by the Draft 2045 CAP could result in a significant impact in this regard. Implementing Mitigation Measure 3.18-3, which would require any project applicant to prepare a fire prevention plan, would ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by measures and actions included in Alternative 2. • Impact 3.18-4: LTS (same as the Project) because projects facilitated by the ZNE building efficiency measures in Alternative 2 would have the same potential to expose people or structures to significant risks, and would be subject to the same laws, regulations, and ordinances, which would ensure that the impact would be less than significant. • Impact 3.18-5: LTSM (same as the Project) because projects facilitated by the ZNE building efficiency measures in Alternative 2 would have the same potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Requisite compliance with the Los Angeles County Fire Code, the California Building Code, policies in the General Plan, and Mitigation Measure 3.18-3 would reduce this impact to less than significant.

**TABLE 4-4 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

EIR Section	Resource Area	Project	No Project Alternative	Alternative 1, Carbon Offset Alternative	Alternative 2, Zero Net Energy Buildings Alternative
3.18 (cont.)	Wildfire	<p>Impact 3.18-6: LTSM. The Project's contribution to cumulative impacts would not be cumulatively considerable with implementation of Mitigation Measure 3.15-1, which would reduce this impact related to the impairment of an adopted emergency response plan or emergency evacuation plan to a less than cumulatively considerable (less-than-significant) level.</p> <p>Impact 3.18-7: LTS. The Project's incremental less-than-significant contribution to cumulative impacts would not be cumulatively considerable with respect to the exacerbation of cumulative wildfire risks that would expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.</p> <p>Impact 3.18-8: LTSM. The Project's incremental contribution to cumulative impacts would not cause or contribute to any significant cumulative impact related to the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk, or that may result in temporary or ongoing cumulative impacts on the environment, so long as Mitigation Measure 3.18-3 is implemented. Implementation of this measure would ensure that the incremental cumulative risk of wildfire from projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD and CAL FIRE.</p> <p>Impact 3.18-9: LTSM. The Draft 2045 CAP would not cause or contribute to any significant cumulative impact related to the exposure of people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, so long as Mitigation Measure 3.18-3 is implemented. This measure would ensure that the incremental cumulative risk of wildfire from projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD and CAL FIRE, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite.</p>	<ul style="list-style-type: none"> Impact 3.18-6: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to impairment of an adopted emergency response plan or emergency evacuation plan. Impact 3.18-7: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the exacerbation of cumulative wildfire risks that would expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impact 3.18-8: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing cumulative impacts on the environment. Impact 3.18-9: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the exposure of people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. 	<ul style="list-style-type: none"> Impact 3.18-6: LTSM (same as the Project) because Alternative 1's incremental contribution to cumulative impacts would not cause or contribute to a significant cumulative impact with regard to impairment of an adopted emergency response plan or emergency evacuation plan, so long as Mitigation Measure 3.15-1 were implemented. Impact 3.18-7: LTS (same as the Project) because Alternative 1's less-than-significant incremental contribution to cumulative impacts would not cause or contribute to a significant cumulative impact with regard to the exacerbation of cumulative wildfire risks that would expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impact 3.18-8: LTSM (same as the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 1 would be managed through collaboration with LACoFD and CAL FIRE. Impact 3.18-9: LTSM (same as the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 1 would be managed through collaboration with LACoFD and CAL FIRE, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. 	<ul style="list-style-type: none"> Impact 3.18-6: LTSM (same as the Project) because Alternative 2's incremental contribution to cumulative impacts would not cause or contribute to a significant cumulative impact with regard to impairment of an adopted emergency response plan or emergency evacuation plan, so long as Mitigation Measure 3.15-1 were implemented. Impact 3.18-7: LTS (same as the Project) because Alternative 2's less-than-significant incremental contribution to cumulative impacts would not cause or contribute to a significant cumulative impact with regard to the exacerbation of cumulative wildfire risks that would expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impact 3.18-8: LTSM (same as the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 2 would be managed through collaboration with LACoFD and CAL FIRE. Impact 3.18-9: LTSM (same as the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 2 would be managed through collaboration with LACoFD and CAL FIRE, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite.

NOTES:

AAQS = ambient air quality standards; AB = Assembly Bill; ALUP = airport land use plan; AQMP = air quality management plan; AVAQMD = Antelope Valley Air Quality Management District; BAU = business-as-usual; CAL FIRE = California Department of Forestry and Fire Protection; CALGreen Code = California Green Building Standards Code; California Register = California Register of Historical Resources; CARB = California Air Resources Board; CBC = California Building Code; CDFW = California Department of Fish and Wildlife; CdTe = cadmium telluride; CEQA = California Environmental Quality Act; Construction General Permit = California Construction Stormwater Permit; County = unincorporated areas of Los Angeles County; Countywide = Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; dBA = A-weighted decibels; Draft 2045 CAP = draft 2045 Los Angeles County Climate Action Plan; EIR = environmental impact report; FAA = Federal Aviation Administration; General Plan = Los Angeles County General Plan 2035; GHG = greenhouse gas; GWP = global warming potential; HMA = Hillside Management Area; LA County = County of Los Angeles; LACoFD = Los Angeles County Fire Department; LID = low impact development; MS4 = Municipal Separate Storm Water System; OurCounty Sustainability Plan = OurCounty: Los Angeles Countywide Sustainability Plan; Project = 2045 Los Angeles County Climate Action Plan; PV = photovoltaic; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SB = Senate Bill; SCAG = Southern California Association of Governments; SCAQMD = South Coast Air Quality Management District; SGMA = Sustainable Groundwater Management Act; TAC = toxic air contaminant; USFWS = U.S. Fish and Wildlife Service; VMT = vehicle miles traveled; ZNE = zero net energy

Impact Conclusions: LTS = less than significant; LTSM = less than significant with mitigation incorporated; SU = significant and unavoidable

SOURCE: Data compiled by Environmental Science Associates in 2022

CHAPTER 5

Other CEQA Considerations

5.1 Introduction

CEQA Guidelines Section 15126 requires an EIR to discuss certain topics that were not specifically discussed in previous EIR chapters. Accordingly, this chapter discusses the following topics:

- (1) Significant environmental effects that cannot be avoided if the Project is implemented.
- (2) Significant irreversible environmental changes that would result from implementation of the Project.
- (3) Growth-inducing impacts of the Project.

5.2 Significant Unavoidable Impacts

Section 15126.2(b) of the CEQA Guidelines requires an EIR to describe any significant impacts that cannot be avoided. The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause the significant and unavoidable impacts identified in **Table 5-1, Significant and Unavoidable Impacts**.

**TABLE 5-1
SIGNIFICANT AND UNAVOIDABLE IMPACTS**

Resource Consideration	Location of Additional Details
Aesthetics	Section 3.2
The Project, as a result of projects facilitated by the Draft 2045 CAP, would:	
<ul style="list-style-type: none">• Have a substantial adverse effect on a scenic vista at the Project level (Impact 3.2-1) and cumulatively (Impact 3.2-6).• Be visible from or obstruct views from a regional riding, hiking, or multiuse trail at the Project level (Impact 3.2-2) and cumulatively (Impact 3.2-7).• Substantially damage scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic buildings within a state scenic highway at the Project level (Impact 3.2-3) and cumulatively (Impact 3.2-8).• Substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations of governing scenic quality. (Public views are those that are experienced from a publicly accessible vantage point.) The impact would occur at the Project level (Impact 3.2-4) and cumulatively (Impact 3.2-9).	
Agriculture and Forestry Resources	Section 3.3
<ul style="list-style-type: none">• Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use at the Project level (Impact 3.3-1) and cumulatively (Impact 3.3-6).• Conflict with zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract at the Project level (Impact 3.3-2) and cumulatively (Impact 3.3-7).• Involve changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use at the Project level (Impact 3.3-5) and cumulatively (Impact 3.3-10).	

TABLE 5-1 (CONTINUED)
SIGNIFICANT AND UNAVOIDABLE IMPACTS

Resource Consideration	Location of Additional Details
Air Quality	Section 3.4
The Project, as a result of projects facilitated by the Draft 2045 CAP, would:	
<ul style="list-style-type: none"> • Conflict with or obstruct implementation of the applicable air quality plan at the Project level (Impact 3.4-1) and cumulatively (Impact 3.4-5). • Result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (Impact 3.4-2 and Impact 3.4-6). • Potentially expose sensitive receptors to substantial pollutant concentrations associated with localized air pollutant toxic air contaminant (TAC) emissions (Impact 3.4-3a) and cumulatively (Impact 3.4-7). 	
Biological Resources	Section 3.5
The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would:	
<ul style="list-style-type: none"> • Have a substantial adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). This impact would be significant and unavoidable at the Project level (Impact 3.5-2) and cumulatively (Impact 3.5-7). • Have a substantial adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS at the Project level (Impact 3.5-3) and cumulatively (Impact 3.4-8). • Interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. This impact would be significant and unavoidable at the Project level (Impact 3.5-5) and cumulatively (Impact 3.5-10). 	
Noise	Section 3.13
The Project, as a result of projects facilitated by the Draft 2045 CAP, could:	
<ul style="list-style-type: none"> • Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. This impact would be significant and unavoidable at the Project level (Impact 3.13-1) and cumulatively (Impact 3.13-3). • Generate excessive groundborne vibration or groundborne noise levels. This impact would be significant and unavoidable at the Project level (Impact 3.13-2) and cumulatively (Impact 3.13-4). 	
Utilities and Service Systems	Section 3.17
<ul style="list-style-type: none"> • Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects at the Project level (Impact 3.17-1) and cumulatively (Impact 3.17-5). 	

5.3 Significant Irreversible Changes

The CEQA Guidelines require an EIR to address potential significant irreversible changes that would result from implementation of a project. According to CEQA Guidelines Section 15126.2(c), such a change would involve one or more of the following scenarios:

- (1) A change in land use that commits future generations to similar uses.
- (2) Irreversible damage from environmental accidents.
- (3) A large commitment of nonrenewable resources.

The Draft 2045 CAP proposes no changes in land use. It proposes no change to General Plan land use or zoning code designations for any parcel in the unincorporated County. Instead, implementation of the Draft 2045 CAP, once approved, would rely on already-adopted General Plan land use and

zoning code designations. The Draft 2045 CAP's 2035 target of 50 percent below 2015 levels puts LA County on a path to achieve the Draft 2045 CAP's 2045 long-term aspirational goal of carbon neutrality and statewide 2045 target as stipulated in Executive Order B-55-18. This is because the County's 2035 target of 50 percent below 2015 levels is equivalent to a 57 percent reduction below 1990 levels, which exceeds the state's target of 40 percent below 1990 levels. The Draft 2045 CAP does not include individual project-specific, location-specific projects facilitated by measures and actions included in the Draft 2045 CAP. Future generations would not be committed to any particular land use as a result of the Draft 2045 CAP.

The Draft 2045 CAP would not result in irreversible damage from environmental accidents if Mitigation Measure 3.10-2 is adopted. As analyzed in Section 3.10, *Hazards and Hazardous Materials*, approval of the Draft 2045 CAP could not create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials or waste into the environment in the absence of mitigation. However, Mitigation Measure 3.10-2 would be implemented for future solar projects facilitated by the Draft 2045 CAP; implementing Mitigation Measure 3.10-2 would ensure that hazardous waste from broken solar panels containing cadmium telluride is disposed of properly if not recycled.

The Draft 2045 CAP is a policy document intended to reduce greenhouse gas emissions in unincorporated areas of the County. The construction of projects facilitated by Draft 2045 CAP measures and actions could have impacts related to hazardous materials; however, requisite compliance with independently enforceable federal and state laws governing the transportation, storage, use, and cleanup of hazardous materials and wastes otherwise would prevent any accidental release from causing irreversible environmental damage.

The Draft 2045 CAP would not result in a large commitment of nonrenewable resources. As explained above, the Draft 2045 CAP is a policy document that charts a path toward carbon neutrality in the unincorporated areas of Los Angeles County. Individual projects facilitated by the Draft 2045 CAP measures and actions may require the consumption of nonrenewable resources for their implementation, but these would not be large commitments.

5.4 Growth-Inducing Impacts

Pursuant to CEQA Guidelines Section 15126.2(e), an EIR must discuss a project's potential growth-inducing effects. The CEQA Guidelines generally describe such effects as the following:

- (1) Economic growth, population growth, or additional housing in the surrounding environment.
- (2) Removal of obstacles to population growth (e.g., a major expansion of a wastewater treatment facility that allows for more construction in the service area).
- (3) Increases in population that tax existing services, requiring construction of new facilities that could cause significant environmental effects.
- (4) Characteristics of a project that would encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

As analyzed in Section 3.14, *Population and Housing*, the Draft 2045 CAP would support development allowed under the General Plan land use assumptions of the 2021–2029 Housing Element. The Draft 2045 CAP is a policy document that does not directly include site-specific projects that would induce population growth. The Draft 2045 CAP includes Measure T1 to encourage density near high-quality transit areas, and Measure T2 to develop land use plans addressing the jobs-housing balance and increased mixed use to the extent allowed by the General Plan. No changes to General Plan land use designations are proposed. Therefore, the Draft 2045 CAP would not result in an unplanned increase in population or housing outside of what was accounted for in the General Plan with the 2021–2029 Housing Element.

CHAPTER 6

Report Preparation

6.1 Lead Agency

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Ruta Thomas	Project Director, Overall Quality Assurance/ Quality Control
Brandon Carroll	Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality
Olivia Chan	Energy
Fatima Clark, OCCA	Cultural Resources, Tribal Cultural Resources
Jaclyn Catino-Davenport	Biological Resources
Matt Fagundes	Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality
Daryl Koutnik, PhD.	Biological Resources
Sylvia Palomera	Land Use and Planning

Shadde Rosenblum, MURP	Transportation
Brian Schuster	Project Description, Alternatives, Air Quality, GHG Emissions
Alan Sako, LEED-AP BD+C	Air Quality, Energy, GHG Emissions, Noise
Olivia Silverstein	Population and Housing, Utilities and Service Systems
Michael Stewart, PECE	Air Quality
Monica Strauss, RPA, MA	Cultural Resources, Tribal Cultural Resources
Shannon Wages	Land Use and Planning
Tim Witwer, LEED-AP BD+C	Air Quality, GHG Emissions, Noise

6.3 Subconsultants

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Ali Kothawala	Transportation

6.4 Entities Consulted and Recipients of the Draft EIR and/or the Notice of Availability

Federal Agencies

Edwards Air Force Base Encroachment Protection
Environmental Protection Agency
Federal Aviation Administration
National Park Service
NAVFACSW, Intergovernmental Branch AM-3
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
United States Forest Service

State Agencies

Bureau of Land Management
California Department of Education
California Regional Water Quality Control Board, Lahontan Region 6
California Regional Water Quality Control Board, Los Angeles Region 4
California Air Resources Board
California Emergency Management Agency
California Highway Patrol
California Office of Environmental Health Hazard Assessment
California Public Utilities Commission

State Agencies

CalRecycle Southern California Office
 Caltrans District #7
 Caltrans Planning
 CDFW South Coast Region
 Coastal Commission
 Colorado River Board
 Department of Boating and Waterways
 Department of Conservation
 Department of Corrections and Rehabilitation
 Department of Food and Agriculture
 Department of Forestry and Fire Protection
 Department of General Services
 Department of Parks and Recreation
 Department of Pesticide Regulation
 Department of Resources Recycling and Recovery
 Department of Water Resources
 Department of Toxic Substances Control
 Energy Commission
 Housing and Community Development
 Native American Heritage Commission
 Office of Historic Preservation
 Regional Water Quality Control Board
 Resources Agency
 San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy
 Santa Monica Mountains Conservancy
 State Lands Commission

Regional Agencies

Antelope Valley Air Quality Management District
 Gateway Cities Council of Governments
 Los Angeles County Sanitation District
 Las Virgenes/Malibu Council of Governments
 Metropolitan Transportation Authority Planning Division
 Metropolitan Water District
 North Los Angeles County Transportation Coalition JPA
 Resource Conservation District of Santa Monica Mountains
 San Fernando Valley Council of Governments
 South Bay Cities Council of Governments
 South Coast Air Quality Management District
 Southern California Association of Governments
 Westside Cities Council of Governments

Local Agencies

Acton Town Council	Lakewood
Agoura Hills	Lancaster
Alhambra	Lawndale
Altadena Town Council	Lomita
Arcadia	Long Beach
Artesia	Los Angeles
Avalon	Lynwood
Azusa	Malibu
Baldwin Park	Manhattan Beach
Bell	Maywood
Bell Gardens	Monrovia
Bellflower	Montebello
Beverly Hills	Monterey Park
Bradbury	Norwalk
Brea	Orange County
Burbank	Palmdale
Calabasas	Palos Verdes Estates
Carson	Paramount
Cerritos	Pasadena
City of Ventura	Pico Rivera
Claremont	Pomona
Commerce, City of	Rancho Palos Verdes
Compton	Redondo Beach
Covina	Rolling Hills
Cudahy	Rolling Hills Estates
Culver City	Rosemead
Diamond Bar	San Bernadino County
Downey	San Dimas
Duarte	San Fernando
El Monte	San Gabriel
El Segundo	San Marino
Gardena	Santa Clarita
Glendale	Santa Fe Springs
Glendora	Santa Monica
Hawaiian Gardens	Sierra Madre
Hawthorne	Signal Hill
Hermosa Beach	South El Monte
Hidden Hills	South Gate
Huntington Park	South Pasadena
Industry, City of	Temple City
Inglewood	Torrance
Irwindale	Ventura County
Kern County	Vernon
La Cañada Flintridge	Walnut
La Habra Heights	West Covina
La Mirada	West Hollywood
La Puente	Westlake Village
La Verne	Whittier

Tribal Entities/Members

Name/Contact	Tribe/Affiliation
Andrew Salas	Gabrieleno Band of Mission Indians – Kizh Nation/Chairperson
Anthony Morales	Gabrieleno Tongva San Gabriel Band of Mission Indians/Chief
Jairo Avila	Fernandefio Tataviam Band of Mission Indians/Tribal Historic and Cultural Preservation Officer
Lee Clauss	San Manuel Band of Mission Indians/Cultural Resources Management Director
Octavio Escobedo	Tejon Indian Tribe/Tribal Chair
Charles Alvarez	Gabrielino – Tongva Tribe
Donna Yocum	San Fernando Band of Mission Indians/Chairperson
Fred Collins	Northern Chumash Tribal Council/Spokesperson
Gino Altamirano	Coastal Band of the Chumash Nation/Chairperson
Julie Tumamait-Stenslie	Barbareno/Ventureno Band of Mission Indians/Chairperson
Julio Quair	Chumash Council of Bakersfield/Chairperson
Kenneth Kahn	Santa Ynez Band of Chumash Indians/Chairperson
Lee Clauss	San Manuel Band of Mission Indians/Director of Cultural Resources
Mark Cochrane	Serrano Nation of Mission Indians/Co-Chairperson
Mark Vigil	San Luis Obispo County Chumash Council/Chief
Matias Belardes	Juaneno Band of Mission Indians Acjachemen Nation-Belardes/Chairperson
Mona Tucker	Yak tityu tityu yak tithini-Northern Chumas Tribe/Chairperson
Robert Dorame	Gabrielino Tongva Indians of California Tribal Council/Chairperson
Robert L. Gomez	Tubatulabals of Kern Valley/Chairperson
Robert Martin	Morongo Band of Mission Indians/Chairperson
Robert Robinson	Kern Valley Indian Community/Chairperson
Rudy Ortega	Fernandeno Tataviam Band of Mission Indians/Tribal President
Sandonne Goad	Gabrielino/Tongva Nation/Chairperson
Sonia Johnston	Juaneno Band of Mission Indians/Chairperson
Teresa Romero	Juaneno Band of Mission Indians Acjachemen Nation – Romero/Chairperson
Wayne Walker	Serrano Nation of Mission Indians/Co-Chairperson
Joyce Stanfield Perry	Juaneño Band of Mission Indians, Acjachemen Nation-Belardes/Tribal Manager, Cultural Resource Director
Travis Armstrong	Morongo Band of Mission Indians/Tribal Historic Preservation Officer
Jessica Mauck	San Manuel Band of Mission Indians/Cultural Resources Analyst
Susan Arakawa	Santa Ynez Band of Chumash Indians/Elders' Council and Culture Department Administrative Assistant

Community Organizations Requesting Notification

Acton Town Council
Altadena Town Council

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CHAPTER 7

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7.1 Executive Summary

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7.6 Chapter 5, Other CEQA Considerations

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7.7 Chapter 6, Report Preparation

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