Comments on this document from Margaret Rhyne
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NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC SCOPING MEETING

To: State Clearinghouse, Responsible and Trustee Agencies, and Interested Individuals
Date: April 30, 2014
Subject: Notice of Preparation of a Draft Environmental Impact Report and Notice of Public Scoping Meeting
Project: Los Angeles County Renewable Energy Ordinance
Lead Agency: Los Angeles County

NOTICE IS HEREBY GIVEN that County of Los Angeles ("County"), through the Department of Regional Planning ("Department"), will be the Lead Agency for the preparation of an Environmental Impact Report (EIR) in accordance with the California Environmental Quality Act ("CEQA") for the project described below.

PROJECT INFORMATION: The project is an ordinance amending Title 22 of the County Code to establish regulations, which include definitions and development standards, for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary meteorological (MET) towers. The proposed Renewable Energy Ordinance ("Project") would apply to unincorporated portions of the County over which the County has land use jurisdiction; see Figure 1, Regional Location Map.

NOTICE OF PREPARATION: A Notice of Preparation (NOP) for the EIR, which describes the project and outlines the potential environmental impacts, has been prepared. The NOP will be available for review from **May 5, 2014** to **June 4, 2014** on the Department's website at http://planning.lacounty.gov/energy. Hardcopies will be available at the following locations:

Los Angeles County Regional Planning - 320 W. Temple St., Los Angeles, CA 90012, (213) 974-6476
Regional Planning Field Office – 335A East Avenue K-6, Lancaster, CA 93535, (661) 723-4475
Regional Planning Field Office – 26600 Agoura Rd., Calabasas, CA 91302, (818) 880-3799
Regional Planning Field Office – 4801 E. Third St., Los Angeles, CA 90022, (323) 881-7057
Regional Planning Field Office – 16005 E. Central Ave., La Puente, CA 91744, (213) 974-6411
Regional Planning Field Office – 125 S. Baldwin Ave., Arcadia, CA 91007, (213) 974-6411
Regional Planning Field Office – 23757 Valencia Blvd., Valencia, CA 91355, (661) 222-2570
Regional Planning Field Office – 13523 Telegraph Rd., Whittier, CA 90605, (213) 974-6411
Regional Planning Field Office – 1320 W. Imperial Hwy., Los Angeles, CA 90044, (213) 974-6411
Acton Agua Dulce Library – 33792 Crown Valley Rd., Acton, CA 93510, (661) 269-7101
Agoura Hills Library – 29901 Ladyface Court, Agoura Hills, CA 91301, (818) 889-2278
Avalon Library – 215 Sumner Ave., Avalon, CA 90704, (310) 510-1050
Florence Library – 1610 E. Florence Ave., Los Angeles, CA 90001, (323) 581-8028
La Crescenta Library – 2809 Foothill Blvd., La Crescenta, CA 91214, (818) 248-5313
Lancaster Regional Library - 601 W. Lancaster Blvd., Lancaster, CA 93534, (661) 948-5029
Lennox Library – 4359 Lennox Blvd., Lennox, CA 90304, (310) 674-0385
Littlerock Library – 35119 80th Street East, Littlerock, CA 93543, (661) 944-4138

Quartz Hill Library – 42018 N. 50th St. West, Quartz Hill, CA 93536, (661) 943-2454
Rowland Heights Library – 1850 Nogales St., Rowland Heights, CA 91748, (626) 912-5348
South Whittier Library – 14433 Leffingwell Rd., Whittier, CA 90604, (562) 946-4415
Temple City Library – 5939 Golden West Ave., Temple City, CA 91780, (626) 285-2136
Valencia Library – 23743 W. Valencia Blvd., Santa Clarita, CA 91355, (661) 259-8942
View Park Library – 3854 W. 54th St., Los Angeles, CA 90043, (323) 293-5371

The Department is seeking input from both agencies and members of the public on the scope and content of the environmental information and analysis to be contained in the EIR. Due to the time limits mandated by State law, written comments must be sent via mail, e-mail, or fax no later than 5:00 PM on **Wednesday, June 4, 2014**. Please send your comments at the earliest possible date to:

Los Angeles County Department of Regional Planning
Attn: Thuy Hua
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Email: thua@planning.lacounty.gov
Fax: (213) 626-0434

PUBLIC SCOPING MEETING: Pursuant to the California Public Resources Code Section 21803.9, Los Angeles County will conduct two public scoping meetings. These meetings will provide a public forum for information dissemination and dialogue regarding the components of the proposed project, the overall process, and the draft EIR. While staff will summarize the issues raised at these meetings, anyone wishing to make formal comments on the NOP must do so in writing. The public scoping meetings will be held at the times and locations listed below:

Date: **Tuesday - May 20, 2014**
Time: **5:00 p.m. to 6:00 p.m.**
Location: **Antelope Valley Transit Authority – Board Room**
42210 6th Street West
Lancaster, CA 93534

Date: **Thursday - May 22, 2014**
Time: **12:00 p.m. to 1:00 p.m.**
Location: **Los Angeles County**
Department of Regional Planning
320 W. Temple Street, Room 150 – Commission Hearing Room
Los Angeles, CA 90012

Attachments: Figure 1, Regional Location Map
Initial Study

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FIGURE 1

Regional Location Map

RENEWABLE ENERGY ORDINANCE IS/NOP

Environmental Checklist Form (Initial Study)

County of Los Angeles, Department of Regional Planning

Project title: Renewable Energy Ordinance / Project No. R2014-01160 (1-5) / Case No(s). Advanced Planning No. 2014-00004, Environmental Assessment No. 2014-0096

Lead agency name and address: Los Angeles County Department of Regional Planning: 320 West Temple Street, Los Angeles, California 90012

Contact Person and phone number: Thuy Hua, (213) 974-6476

Project sponsor's name and address: Los Angeles County, 320 W Temple Street, Los Angeles, CA 90012

Project location: The proposed Renewable Energy Ordinance (project) would apply to the unincorporated portions of the County of Los Angeles (County) over which the County has land use jurisdiction.

Gross Acreage: Countywide; approximately 2,583 square miles (1,653,056 acres)

General plan designation: Variable

Community/Area wide Plan designation: All Area Plan and Community Plan designations

Zoning: Variable

Description of project: The project proposes an ordinance amending the Los Angeles County (County) Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary meteorological (MET) towers.

Surrounding land uses and setting: The County stretches along 75 miles of the Pacific Coast of Southern California and is bordered to the east 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.

The unincorporated areas in the northern portion of the County are covered by large amounts of sparsely populated land and include the Angeles National Forest, part of the Los Padres National Forest, and the Mojave Desert. The unincorporated areas in the southern portion of the County consist of noncontiguous land areas, which are often referred to as the County's unincorporated urban islands. The Antelope Valley Planning Area covers approximately 1,800 square miles and includes over two dozen communities. The Antelope Valley Planning Area is bounded by Kern County to the north, Ventura County to the west, the Angeles National Forest (inclusive) to the south, and San Bernardino County to the east. It excludes the Cities of Lancaster and Palmdale.

Other public agencies whose approval may be required: None

Major projects in the area:

Project/Case No.

General Plan Update
Antelope Valley Area Plan Update
East Los Angeles 3rd Street Specific Plan
Florence-Firestone Community Plan
Santa Monica Mountains Local Coastal Program
Willowbrook TOD Specific Plan
Centennial Specific Plan

Reviewing Agencies:

Responsible Agencies

- ☐ None
- Regional Water Quality Control Board:
  - ☒ Los Angeles Region
  - ☒ Lahontan Region
- ☐ Coastal Commission
- ☒ Army Corps of Engineers

Special Reviewing Agencies

- ☒ Santa Monica Mountains Conservancy
- ☐ National Parks
- ☒ National Forest
- ☒ Edwards Air Force Base
- ☐ Resource Conservation District of Santa Monica Mountains Area
- ☒ City of Lancaster
- ☒ City of Palmdale
- ☒ Kern County
- ☒ San Bernardino County
- ☒ Antelope Valley Resource Conservation District
- ☒ State Department of Fish and Wildlife
- ☒ Antelope Valley Air Quality Management Board
- ☒ Southcoast Air Quality Management Board

Regional Significance

- ☐ None
- ☐ SCAG Criteria
- ☒ Air Quality
- ☐ Water Resources
- ☐ Santa Monica Mtns. Area

Trustee Agencies

- ☐ None
- ☒ State Dept. of Fish and Wildlife
- ☐ State Dept. of Parks and Recreation DPR should be included!
- ☒ State Dept. Conservation
- ☒ Caltrans
- ☐ State Lands Commission
- ☐ University of California (Natural Land and Water Reserves System)

County Reviewing Agencies

- ☒ DPW:
  - Land Development Division (Grading & Drainage)
  - Geotechnical & Materials Engineering Division
  - Watershed Management Division (NPDES)
  - Traffic and Lighting Division
  - Environmental Programs Division
  - Waterworks Division
  - Sewer Maintenance Division
- ☒ Fire Department
  - Forestry, Environmental Division
  - Planning Division
  - Land Development Unit
  - Health Hazmat
- ☒ Sanitation District
- ☒ Public Health/Environmental Health Division: Land Use Program (OWTS), Drinking Water Program (Private Wells), Toxics Epidemiology Program (Noise)
- ☒ Sheriff Department
- ☒ Parks and Recreation
- ☐ Subdivision Committee

Many state parks including the Antelope Valley California Poppy Reserve and other state parks and recreation areas in Los Angeles County could be negatively impacted by utility-scale renewable energy installations.
The California Department of Parks and Recreation should be included as a trustee agency.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project.

☒ Aesthetics	☒ Greenhouse Gas Emissions	☐ Population/Housing
☒ Agriculture/Forest	☒ Hazards/Hazardous Materials	☒ Public Services
☒ Air Quality	☒ Hydrology/Water Quality	☒ Recreation
☒ Biological Resources	☒ Land Use/Planning	☒ Transportation/Traffic
☒ Cultural Resources	☒ Mineral Resources	☒ Utilities/Services
☐ Energy	☒ Noise	☒ Mandatory Findings of Significance
☒ Geology/Soils		

DETERMINATION: (To be completed by the Lead Department.)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____
Signature (Prepared by) Date

_____ _____
Signature (Approved by) Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources the Lead Department cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the Lead Department has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level. (Mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced.)

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA processes, an effect has been adequately analyzed in an earlier EIR or negative declaration. (State CEQA Guidelines § 15063(c)(3)(D).) In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) The explanation of each issue should identify: the significance threshold, if any, used to evaluate each question, and; mitigation measures identified, if any, to reduce the impact to less than significance. Sources of thresholds include the County General Plan, other County planning documents, and County ordinances. Some thresholds are unique to geographical locations.

8) Climate Change Impacts: When determining whether a project's impacts are significant, the analysis should consider, when relevant, the effects of future climate change on: 1) worsening hazardous conditions that pose risks to the project's inhabitants and structures (e.g., floods and wildfires), and 2) worsening the project's impacts on the environment (e.g., impacts on special status species and public health).

1. AESTHETICS

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance is Countywide and therefore would allow these uses to be located near or within the viewshed of a scenic vista. Determining the level of impact to a scenic vista requires analyzing the changes to the vista as a whole and also to individual visual resources. A scenic viewshed provides a scenic vista from a given location, such as a highway, a park, a hiking trail, river/waterway, or even from a particular neighborhood. The boundaries of a viewshed are defined by the field of view to the nearest ridgeline. Scenic viewsheds vary by location and community and can include ridgelines, unique rock outcroppings, buttes, ocean views, or various other unusual or scenic landforms.

The County recognizes that the coastline, mountain vistas, and other scenic features of the region are significant resources for the County. The Hillside Management Areas within the County are designated to protect some of the dramatic views and scenic resources and vistas. The Hillside Management Areas are mountainous or foothill terrain with a natural slope of 25% or greater. Wind energy systems, as allowed under the ordinance, require open space in order to harness high wind resource potential. Therefore, they are generally located near ridgelines or hillside areas, or in open areas that tend to be visible. However, the proposed ordinance includes measures to minimize visual impacts to scenic vistas. For example, the top of a small-scale wind energy system must be located at least 50 vertical feet and 50 horizontal feet from any designated significant ridgelines. Also, any transmission lines for utility-scale renewable energy systems must be placed underground unless aboveground right-of-way crossings are required. The ordinance also includes height restrictions, lighting restrictions, color requirements to blend with surroundings, setbacks, and special conditions to minimize visual impacts to scenic drives, scenic routes, and public ocean views in the coastal zone. It is also important to note that the Hillside Management Areas Ordinance protects these scenic resources by requiring almost all development on properties with either the urban or non-urban designation to obtain a conditional use permit (CUP) with the intent of preserving the remaining natural topography.

Even though future projects will be required to implement the measures in the proposed ordinance and the Hillside Management Ordinance, renewable energy systems and temporary MET towers could introduce new vertical elements within the viewshed of a scenic vista and therefore may result in a substantial adverse impact on a scenic vista. The proposed ordinance's potential to result in a substantial adverse impact on a scenic vista will be further addressed in the program environmental impact report (PEIR).

b) Be visible from or obstruct views from a regional riding or hiking trail? ☒ ☐ ☐ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance is Countywide and therefore would allow these uses to be located near a regional riding or hiking trail. The County offers unique trail use opportunities that showcase its diverse scenery and provide connectivity to parks, open spaces, cultural resources, and wilderness areas. The County's regional trails are largely concentrated in the Santa Monica Mountains as well as in unincorporated areas surrounding the Angeles National Forest and throughout the Antelope Valley and Santa Clarita Valley.

The ordinance includes measures that would minimize visual impacts to regional riding or hiking trails. For example, transmission lines for utility-scale renewable energy systems must be placed underground unless aboveground right-of-way crossings are required. The ordinance also includes height restrictions, lighting restrictions, color requirements to blend with surroundings, and setbacks. Even though future projects will be required to implement these measures in the ordinance, renewable energy systems and temporary MET towers could result in potentially significant adverse impacts to regional trails since they could introduce new vertical elements within the viewshed of a regional trail and would potentially degrade the scenic character in and around the trail. The proposed ordinance's potential to result in a substantial adverse impact on regional riding or hiking trails will be further addressed in the PEIR.

c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? ☒ ☐ ☐ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance is Countywide and therefore would allow these uses to be located near a state scenic highway. State scenic highways refer to those highways that are officially designated by the California Department of Transportation (Caltrans) as scenic (Caltrans California Scenic Highway Program (http://www.dot.ca.gov/hq/LandArch/scenic highways/scenic hwy.htm). Generally, the area defined within a state scenic highway is the land adjacent to and visible from the vehicular right-of-way. The dimension of a scenic highway is usually identified using a motorist's line of vision, but a reasonable boundary is selected when the view extends to the distant horizon. The scenic highway corridor extends to the visual limits of the landscape abutting the scenic highway.

The ordinance includes specific measures to minimize visual impacts to a scenic drive or scenic route. The ordinance requires any small-scale wind energy system or utility-scale ground-mounted renewable energy system placed within the viewshed of a scenic drive to be analyzed for visual impacts and apply appropriate conditions such as siting, buffering, height, and design to minimize significant effects. Other measures that would generally minimize visual impacts, such as those to trees, rock outcroppings, and historic buildings within a scenic highway, include undergrounding transmission lines, height restrictions, lighting restrictions, color requirements to blend with surroundings, and setbacks. Even though future projects will be required to implement the measures in the ordinance, renewable energy systems and temporary MET towers could result in potentially significant adverse impacts to scenic resources within a scenic highway since they could introduce new vertical elements within the viewshed of a scenic highway. The proposed ordinance's

potential to result in a substantial adverse impact on scenic resources within a state scenic highway will be further addressed in the PEIR.

d) Substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance would allow these uses that may substantially degrade the existing visual character or quality of a site and its surroundings because of height, bulk, pattern, scale, character, or other features. Visual character is the objective composition of the visible landscape within a viewshed. Visual character is based on the organization of the pattern elements line, form, color, and texture. Visual character is commonly discussed in terms of dominance, scale, diversity, and continuity. Visual quality is the viewer's perception of the visual environment and varies based on exposure, sensitivity, and expectation of the viewers.

The ordinance includes design measures to help future projects integrate with surrounding visual character and to minimize visual impacts. Such measures include undergrounding transmission lines, height restrictions, lighting restrictions, color requirements to blend with surroundings, and setbacks. Additionally, the ordinance requires special conditions to minimize visual impacts to scenic drives, scenic routes, and public ocean views in the coastal zone. Even though future projects will be required to implement the measures in the ordinance, renewable energy systems and temporary MET towers could result in potentially significant adverse impacts to visual character since they could introduce new facilities with height, bulk, and scale that may differ from existing surrounding uses. For example, a utility-scale wind energy system is a type of renewable energy system that requires open space to harness higher wind resource potential; therefore, these systems are generally located near ridgelines or in open areas that tend to be visible. The proposed ordinance's potential to result in a substantial adverse impact to visual character will be further addressed in the PEIR.

e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance would allow these uses that could generate shadows, light, or glare.

Shadows

Solar energy systems are typically not tall enough to generate substantial shadows that would affect nearby sensitive receptors. Future wind energy systems and temporary MET towers allowed under the ordinance may generate shadows due to their height. However, the massing of wind turbines is broken up, which creates passages through which light may pass, thereby minimizing impacts to nearby sensitive receptors.

Light

The ordinance prohibits lighting on temporary MET towers and ground-mounted utility-scale renewable energy system towers except for safety lighting to meet Federal Aviation Administration (FAA) standards or to meet other aviation agency requirements. Night-lighting for safe and secure access to entryways and operation and maintenance buildings for all future projects under the ordinance, as applicable, shall be shielded and directed downward and shall include motion sensors. Additionally, future projects located within the rural outdoor lighting district shall comply with the County's Rural Outdoor Lighting District Ordinance. The County's Rural Outdoor Lighting District Ordinance was developed to effectively address and minimize the impact of new source light pollution on nighttime views. Compliance with the County's Rural Outdoor Lighting District Ordinance is required prior to issuance of any building permit for any project located within the rural outdoor lighting district. Mandatory compliance for all new building permits ensures that future projects under the proposed ordinance, in combination with all past, present, and future projects, will not contribute to a cumulatively considerable impact. Therefore, compliance with the County's Rural Outdoor Lighting District Ordinance and lighting requirements of the proposed ordinance ensures that the project will not create a significant new source of substantial light that would adversely affect daytime or nighttime views in the area, on a project or cumulative level.

Glare

The ordinance requires all renewable energy facilities to use non-reflective colors and materials. However, solar projects would still have the potential to generate glare, primarily produced from the solar panels, which reflect a small portion of the sun's image back to the viewer. It is important to understand that glare intensity is directly related to the angle of incidence of the sun striking the panel, and may account for a wide range of results depending on whether the solar panels are static or moving throughout the day. The level of impact from glare exposure depends on the location of sensitive receptors. Sensitive receptors may include residents, recreationists, and motorists. Glare from solar panels may also result in potential hazards to flight operations; this issue is addressed in Section 9, Hazards and Hazardous Materials. Temporary MET towers and wind energy systems are less likely to result in glare impacts, although lighting associated with these facilities may result in glare. The proposed ordinance's potential to result in a substantial adverse visual impact due to glare will be further addressed in the PEIR. It should also be noted that for discretionary solar projects, the County typically includes the following mitigation measure: "glass used to cover the flat-plate photovoltaic (PV) panels shall be high-transmission, low-iron tempered glass and have a reflectance value of 8 percent or less."

Shadow Flicker

Future wind energy systems may result in shadow flicker, which is commonly defined as alternating changes in light intensity at a given stationary location. In order for shadow flicker to occur, three conditions must be met:

- The sun must be shining with no clouds obscuring the sun
- The rotor blades must be spinning and be located between the receptor and the sun
- The receptor must be sufficiently close to the turbine to be able to distinguish a shadow created by the turbine.

Concerns are occasionally raised about adverse health effects caused by shadow flicker such as annoyance, stress, and/or seizures in persons with photosensitive epilepsy. Concerns are also sometimes raised about shadow flicker on roadways distracting drivers and causing accidents. Utility-scale wind energy systems may result in significant shadow flicker effects if sensitive receptors are within 2,000 meters (6,562 feet) of the proposed turbines. Beyond 2,000 meters, the human eye cannot discern a shadow cast from a wind turbine. The proposed ordinance's potential to result in a substantial adverse impact related to shadow flicker will be further addressed in the PEIR.

2. AGRICULTURE / FOREST

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
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 non-agricultural use?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance is Countywide and would allow these uses to be located on land designated as Prime Farmland, Unique Farmland, and Farmland of Statewide or Local Importance according to the State Farmland Mapping and Monitoring Program. The proposed ordinance may have a potentially significant impact due to conversion of these farmland types to a non-agricultural use. The proposed ordinance's potential to convert Important Farmland to a non-agricultural use will be addressed in the PEIR.

b) Conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance is Countywide and therefore would allow these uses to be located on land zoned for agriculture, the County-designated Agricultural Opportunity Areas, or Williamson Act contract lands. The only Williamson Act contract lands in the County are located on Catalina Island and held by the Catalina Island Conservancy as set asides for open space and recreational purposes.

Per County Code Title 22, electric generating plants are a conditionally allowed use in the Heavy Agricultural (A-2) zones upon obtaining a CUP, which indicates they are generally compatible uses in agricultural zones. The future uses allowed pursuant to the ordinance could be found on land under a Williamson Act contract or in a County-designated Agricultural Opportunity Area. The Williamson Act contract may need to be reviewed or removed from the property; however, this would be determined on a case-by-case basis. The proposed ordinance's potential to conflict with agricultural zoning, a County-designated Agricultural Opportunity Area, or a Williamson Act contract will be addressed in the PEIR.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220 (g)), timberland (as defined in Public Resources Code § 4526), or timberland zoned Timberland Production (as defined in Government Code § 51104(g))? ☐ ☐ ☒ ☐

This should be indicated as "potentially significant" as the zoning for lands adjacent to existing protected areas including SEAs, state parks and conservation lands could subjected to zoning changes resulting in negative edge effects to protect land.

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Within the unincorporated areas of the County, the Angeles National Forest and a small portion of the Los Padres National Forest encompass nearly 650,000 acres of land. Nearly 40,000 acres of the national forests are privately owned. The U.S. Forest Service is responsible for managing public forest lands. For the privately owned forest land parcels, commonly referred to as inholdings, the County retains responsibility for land use regulation.

Per County Code Title 22, forest lands within the County are zoned Open Space (OS) and Watershed (W) zones. Per County Code Title 22, electric generating plants are not permitted within the OS zone; however, they are permitted within the W zone with a CUP. Forest lands would not serve as an ideal location for future renewable energy facilities. Impacts resulting from implementation of the proposed ordinance would be less than significant.

d) Result in the loss of forest land or conversion of forest land to non-forest use? ☐ ☐ ☐ ☐

General Discussion

See Response 2(c).

e) 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? ☒ ☐ ☐ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County and therefore facilities developed pursuant to the proposed ordinance may be located adjacent to or near agricultural or forest land. Therefore, implementation of the proposed ordinance could have an impact on existing agricultural land, existing agricultural uses, and forest and timberland. This potential impact will be addressed in the PEIR.

3. AIR QUALITY

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of applicable air quality plans of either the South Coast AQMD (SCAQMD) or the Antelope Valley AQMD (AVAQMD)?	☐	☐	☒	☐

Due to the ongoing well documented severe problems with fugitive dust in the Antelope Valley caused by installation including AV Solar I, this should be changed to Potentially Significant Impact. This is a threat to both the health and safety of the residents and those traveling through the area on Highways 14 and 138.

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project is Countywide and therefore is located within two air basins. The boundaries of the two air basins reflect two distinct geographical areas called the Los Angeles Basin and Antelope Valley. The Los Angeles Basin is part of the South Coast Air Basin (SCAB), while the Antelope Valley is part of the Mojave Desert Air Basin (MDAB).

The air pollutants that are regulated by the federal and California Clean Air Acts fall under three categories, each of which is monitored and regulated:

- Criteria air pollutants
- Toxic air contaminants
- Global warming and ozone-depleting gases.

In 1970, the U.S. Environmental Protection Agency (EPA) identified six criteria air pollutants they found to be the most harmful to human health and welfare. These include:

- Ozone (O_3)
- Particulate matter (PM_{10} and $PM_{2.5}$)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO_2)
- Sulfur dioxide (SO_2)
- Lead (Pb).

The entire SCAB is designated as a nonattainment area for both federal and state O_3 standards. The EPA has classified the SCAB as an "extreme nonattainment" area and has mandated that it achieve attainment no later than June 15, 2024. The federal NO_2 standard was revised in 2010, and all areas of California have been designated unclassifiable/nonattainment, and the SCAB is also designated as a nonattainment area for the state NO_2 standards. The SCAB is designated as an attainment area for federal and state CO and SO_2 standards, as an attainment area for the federal PM_{10} standard, and as a nonattainment area for the state PM_{10} standards. The SCAB is designated as a nonattainment area for both federal and state $PM_{2.5}$ standards. The MDAB is designated as a nonattainment area for both federal and state O_3 standards. The MDAB is also designated as a nonattainment area for state PM_{10} standards.

In response to the region's poor air quality, the South Coast Air Quality Management District (SCAQMD) and the Antelope Valley Air Quality Management District (AVAQMD) were created. The SCAQMD and the AVAQMD are responsible for monitoring air quality as well as planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the region.

The SCAQMD implements a wide range of programs and regulations, most notably, the Air Quality Management Plan (AQMP). The SCAQMD jurisdiction covers approximately 10,743 square miles and includes all of Los Angeles County except for the Antelope Valley, which is covered by the AVAQMD. According to the SCAQMD, if a project does not conform to a general plan, then it is not within the Southern California Association of Governments' (SCAG's) population and vehicle miles traveled projections, which form the foundation of the AQMP. The proposed ordinance would not generate growth, increase population, or require the alteration of an existing land use designation through amendments to the general plan or changes to zoning. Therefore, the level of development as a result of implementing the proposed ordinance would not exceed what was considered in the AQMP and would not conflict with or obstruct implementation of an air quality plan. The AVAQMD has adopted many of the same rules and regulations as those that are enforced by the SCAQMD. Rules include measures to reduce fugitive dust by requiring implementation of best available control measures for all fugitive dust sources and by prohibiting all forms of visible particulate matter from crossing any property line. The rule pertaining to fugitive dust, which would apply to projects in both AQMD jurisdictions, is intended to reduce particulate matter emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. Compliance with this rule would help alleviate fugitive dust generated by utility-scale renewable energy facilities. Discretionary review by the air quality management district in which a proposed renewable energy facility is located would be required to demonstrate compliance with that district's programs and regulations. Impacts are anticipated to be less than significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐

Please see previous comment - should be changed to Potentially Significant.

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project is Countywide and therefore is located within two air basins, the SCAB and the MDAB.

Construction and grading activities associated with development of renewable energy facilities may result in emissions of PM_{10}, oxides of nitrogen (NO_x), and volatile organic compounds (VOCs). Construction emissions would be generated from two principal sources: (1) engine exhaust of construction equipment and vehicles, and (2) particulate emissions from soil disturbance due to grading, earthmoving, and vehicle activity on unpaved roads and work areas. Particulate pollutants of concern are diesel particulate matter from construction equipment and particulates in dust raised by earthmoving and grading; diesel particulate matter contributes to $PM_{2.5}$ air quality emission levels. Additional emissions would be generated by any workers commuting to future project sites and vehicle travel on unpaved roadways during construction and operation.. Additionally, future projects allowed by the ordinance would contribute to lowering polluting emissions from large power plants supplying power to the County. Therefore, impacts would be considered less than significant.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project is Countywide and therefore is located within two air basins, the SCAB and the MDAB.
As discussed in Response 3b, future projects allowed by the proposed ordinance are not anticipated to exceed screening levels of criteria pollutants. However, future projects, when combined with cumulative projects, may potentially result in new sources of particulate matter from construction activities and/or vehicle trips that may result in a significant increase in criteria pollutant emissions for which the SCAB or the MDAB are in nonattainment. The proposed ordinance's potential to result in an impact related to the violation of air quality standards will be addressed in the PEIR.

d) Expose sensitive receptors to substantial pollutant concentrations? ☐ ☐ ☒ ☐

Should be changed to Potentially Significant for reasons stated above.

General Discussion

Air quality regulators typically define sensitive receptors as schools (preschool through 12th grade), hospitals, resident care facilities, daycare centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. Residences are also considered sensitive receptors since they may house children and the elderly.

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project is Countywide and therefore sensitive receptors could be identified within a quarter mile (the radius determined by the SCAQMD in which the dilution of pollutants is typically significant) of a future proposed renewable energy facility or temporary MET tower. However, a renewable energy system or temporary MET tower does not propose uses or activities that would result in exposure of sensitive receptors to significant pollutant concentrations and will not place sensitive receptors near CO hotspots. Additionally, future projects allowed under the ordinance would contribute to lowering polluting emissions from large power plants supplying power to the County. As such, implementation of the proposed ordinance would not expose sensitive populations to excessive levels of air pollutants and impacts would be less than significant.

e) Create objectionable odors affecting a substantial number of people? ☐ ☐ ☒ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. A future project developed under the ordinance could produce objectionable odors, which would result from VOCs, ammonia (NH_3), carbon dioxide (CO_2), hydrogen sulfide (H_2S), methane (CH_4), alcohols, aldehydes, amines, carbonyls, esters, disulfides, dust, and endotoxins from the construction and operational phases. However, these substances, if present at all, would only be in trace amounts (less than 1 microgram per cubic meter). Subsequently, no significant air quality / odor impacts are expected to affect surrounding receptors. Moreover, the effects of objectionable odors would be localized to the immediate surrounding area and would not contribute to a cumulatively considerable odor. Impacts are expected to be less than significant.

4. BIOLOGICAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect, 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 the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Some future renewable energy systems will be located on developed lots or already cleared areas and will not have an impact on any candidate, sensitive, or special-status species. Some future renewable energy systems may be built on land that contains native habitat and possibly even candidate, sensitive, or special-status species.

Special-status biological resources include declining habitats and species that have been accorded special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, rare, or otherwise of concern. Databases of such resources are maintained by the CDFW, USFWS, and special groups such as the California Native Plant Society. Within the County, areas that are designated as Significant Ecological Areas (SEAs) or Sensitive Environmental Resource Areas (SERAs) in the coast zone are considered sensitive biological resources and may contain candidate, sensitive, or special-status species.

All future renewable energy systems built pursuant to the proposed ordinance would be required to comply with all existing state and federal regulations that ensure the protection of candidate, sensitive, or special-status species, including the federal Endangered Species Act and the California Endangered Species Act. Furthermore, future renewable energy systems developed pursuant to the proposed ordinance that are located within a SEA, even if only in part, are subject to review by the Significant Ecological Area Technical Advisory Committee (SEATAC) and those in a SERA are subject to review by the Environmental Review Board (ERB). SEA buffers are also mapped and treated the same as the SEAs or SERAs around which they are located. The SEATAC and ERB will recommend mitigation measures, such as minimizing development footprint, reducing project height, and avoidance of certain natural resources, to reduce potential impacts to biological resources, as necessary. Future renewable energy systems located in urbanized areas outside an SEA are not likely to contain candidate, sensitive, or special-status species. The proposed ordinance's potential to impact candidate, sensitive, or special-status species through habitat modification will be addressed in the PEIR.

b) Have a substantial adverse effect 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? ☒ ☐ ☐ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Some future temporary MET towers and renewable energy systems will be located on developed lots or already-cleared areas and will not have an impact on any sensitive natural communities. Some future renewable energy systems may be built on land that contains riparian habitat or other sensitive natural communities as defined by the Natural Community Conservation Plan (NCCP), the California Fish and Game Code, the Endangered Species Acts, the Clean Water Act (CWA), or other local or regional plans, policies, or regulations. Sensitive habitats and vegetation communities are those that are considered rare in the region, support special-status plant or animal species, or receive regulatory protection, including those that are of special concern to resource agencies or are afforded specific consideration through the California Environmental Quality Act (CEQA), Section 1602 of the California Fish and Game Code, Section 404 of the federal CWA, and the state's Porter-Cologne Water Quality Control Act. In addition, sensitive natural communities within the County include County-designated SEAs, SERAs in the Santa Monica Mountains Coastal Zone, and vegetation habitats recognized as sensitive by the state. SERAs include Environmentally Sensitive Habitat Areas, oak woodlands and savannas, significant watersheds, migration corridors, and special resource management areas. State-recognized sensitive vegetation habitats include those indicated as such by the CDFW on their Natural Communities List (http://www.dfg.ca.gov/biogeodata/vegcamp/natural_communities.asp), oak woodland, and any other habitats listed in a California Natural Diversity Database 9-quad analysis.

Future renewable energy systems built pursuant to this proposed ordinance would be required to comply with all existing state and federal regulations that ensure the protection of riparian and sensitive habitat communities, including the federal Endangered Species Act, the California Endangered Species Act, the federal CWA, and the California Streambed Alteration Agreement. Furthermore, future renewable energy systems developed pursuant to the proposed ordinance that are located within a SEA, even if only in part, are subject to review by the SEATAC and those in a SERA are subject to review by the ERB. SEA Buffers are also mapped are treated the same as the SEA or SERA around which it is located. The SEATAC and ERB will recommend mitigation measures, such as minimizing development footprint, reducing project height, and avoidance of certain natural resources, to reduce potential impacts to biological resources, as necessary. Future renewable energy systems located in urbanized areas outside an SEA are not likely to contain sensitive natural communities. The proposed ordinance's potential to impact any sensitive natural communities identified in local or regional plans, policies, or regulations or by the CDFW or USFWS will be addressed in the PEIR.

c) Have a substantial adverse effect on federally or state protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, and drainages) or waters of the United States, as defined by § 404 of the federal Clean Water Act or California Fish & Game Code § 1600, et seq. through direct removal, filling, hydrological interruption, or other means? ☐ ☐ ☒ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Any future renewable energy system built pursuant to the proposed ordinance would be required to comply with all federal regulations that ensure the protection of wetlands as defined by Section 404 of the CWA, including, but not limited to, marsh, vernal pool, and coastal. The U.S. Army Corps of Engineers (ACOE) issues Section 404 permits under the CWA, and generally takes jurisdiction over navigable waters or tributaries thereof within streams and rivers to the ordinary high water mark, as defined by erosional cues, sedimentation, and changes in vegetation. The Regional Water Quality Control Board (RWQCB) issues Section 401 Water Quality Certifications and regulates the discharge of waste within any region that could affect waters of the state, under authority of the provisions of the Porter-Cologne Water Quality Control Act. Prior to the issuance of a CWA Section 404 permit by the ACOE, a Section 401 Certification must be obtained from the RWQCB. No discharging into, directly removing, or hydrologically interrupting any federally protected wetlands will be permitted without appropriate authorization from the ACOE and RWQCB. At the state level, the Lake and Streambed Alteration Program requires written notification to the CDFW prior to altering a riparian area (a type of wetland) supported by a lake, river, or stream, including federally protected wetlands. Therefore, impacts would be less than significant.

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? ☒ ☐ ☐ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers and renewable energy systems may be built on land that contains native habitat and possibly on land that provides wildlife corridors or native wildlife nursery sites. Wildlife corridors are linear landscape features that connect large patches of natural open space and provide avenues for animals to migrate between these natural areas. To function effectively, a wildlife corridor must link two or more patches of habitat for which connectivity is desired, and it must be suitable for the focal target species to achieve the desired demographic and genetic exchange between populations. Identified wildlife movement corridors within the County are mapped as SERAs in the Santa Monica Mountains Coastal Zone. Outside of the Santa Monica Mountains Coastal Zone, wildlife corridors and habitat linkages are being mapped as part of the SEA update program. These corridors and linkages are being identified as areas where wildlife is able to move from one open space area or SEA to another. While the current mapping of wildlife corridors in the County is extensive, the reality of wildlife movement corridors and linkages is more complex and exists in more locations that are not easily mapped (bird and bat migration corridors and most linear natural features such as mountain ranges and watercourses, for example). Where no specific corridor or linkage has been

mapped, the preparer should be aware of any natural drainage courses, streams, or ridgelines in the area, as these can be important wildlife and plant linkage areas.

Future renewable energy systems developed pursuant to the proposed ordinance may introduce new structures or vertical elements or may result in ground disturbance that could interfere with wildlife movement or impede the use of nursery sites. The proposed ordinance would allow for wind energy systems that may have the potential to impact birds that travel within the County. The Pacific Flyway is a major north–south migration route for birds that travel between North and South America. In Southern California, birds typically use the coastal and inland areas. The Pacific Coast route is used by gulls, ducks, and other water birds. Pursuant to the proposed ordinance, all utility-scale wind energy facilities shall be designed, constructed, and operated pursuant to the California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development published by the California Energy Commission[1] and conditions of approval may be imposed by the Regional Planning Commission, consistent with these guidelines, to reduce significant impacts to birds and bats.

Indirect effects may also occur from increased noise levels or nighttime lighting, which would potentially discourage movement within corridors and linkages. The proposed ordinance's potential to 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, will be addressed in the PEIR.

e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5 inch in diameter measured at 4.5 feet above mean natural grade) or otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.)?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, some future temporary MET towers and renewable energy systems may be built on land that contains oak woodlands or other unique native trees. The presence of oak trees (*Quercus* spp.) or oak woodlands has been documented within the SERAs in the Santa Monica Mountains Coastal Zone and in the SEAs. In addition to oaks and oak woodlands, other unique species of trees in the County include juniper (*Juniperus* spp.), Joshua (*Yucca brevifolia*), Northern and Southern California black walnut (*Juglans hindsii*, *J. californica*), and California sycamore (*Platanus racemosa*). All of these species have been identified by the County as unique native trees, with the juniper and Joshua having also been identified by the state, under the Desert Plant Conservation Act, as unique species in California and in need of preservation. Future renewable energy projects would need to identify whether any unique species of trees are present within the site. Impacts to these unique species of trees may result from clearing or grading activities and from planting ornamental plants in close

[1] California Energy Commission. 2007. *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development*. Commissioner Final Report, CEC-700-2007-008-CMF. Produced by the California Energy Commission with the assistance of the California Department of Fish and Wildlife. October 2007. http://www.energy.ca.gov/windguidelines/.

proximity. Any impact to oak trees requires an Oak Tree Permit, and under the adopted CEQA Guidelines[2] may result in a potentially significant impact if two or more trees are impacted. The proposed ordinance's potential to impact oak woodlands or other unique native trees will be addressed in the PEIR.

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. 22.56, Part 16), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, § 22.56.215), and Sensitive Environmental Resource Areas (SERAs) (L.A. County Code, Title 22, Ch. 22.44, Part 6)? ☒ ☐ ☐ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. The project area includes ten wildflower reserve areas, which are designated in Title 12, Ch. 12.36 of the L.A. County Code. Future renewable energy projects would not be developed within these wildflower reserve areas, with the exception of rooftop solar facilities, which would be permitted on buildings within a wildflower reserve area. The presence of oak trees or oak woodlands has been documented within the SERAs in the Santa Monica Mountains Coastal Zone and the SEAs. Future renewable energy projects would need to be consistent with the County's Oak Tree Ordinance and identify if any unique species of trees are present within the site. Impacts to these unique species of trees may result from clearing or grading activities, and planting ornamental plants in close proximity. Any impact to oak trees requires an Oak Tree Permit, and under the adopted CEQA Guidelines may result in a potentially significant impact if two or more trees are impacted. Future renewable energy facilities located in or around SERAs would require review by the ERB and may require mitigation measures, such as minimizing development footprint, reducing project height, and avoidance of certain natural resources, to reduce any potential impacts to biological resources. The proposed ordinance's potential to conflict with any local policies or ordinances protecting biological resources will be addressed in the PEIR.

g) Conflict with the provisions of an adopted state, regional, or local habitat conservation plan? ☒ ☐ ☐ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County.

At the state level, the CDFW has created several regional NCCPs. These plans are intended to be broader in scope than localized conservation plans and have the intent of preserving the integrity of large ecosystems, which sometimes stretch over multiple cities and counties. Currently, there are no NCCPs within the County.

[2] 14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

At the federal level, the Endangered Species Act requires a project seeking an incidental take permit for one or more federally listed species to develop an HCP, which must be approved by the USFWS. The only active HCP in the County is the Newhall Farm Seasonal Crossings HCP, which addresses temporary vehicle crossings and water diversions along the portion of the Santa Clara River west of Valencia to the Ventura County line.

Future temporary MET towers or renewable energy systems may be located in proximity to or within a local coastal program, one or more SEAs, an NCCP, or a federal Endangered Species Act HCP. The proposed ordinance's potential to conflict with the provisions of these plans will be addressed in the PEIR.

5. CULTURAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located on a site that has a national or state-designated historical resource as defined under Section 15064.5(a) of the CEQA Guidelines. Future temporary MET towers or renewable energy systems may adversely affect historical sites or resources through the introduction of visual, auditory, or atmospheric effects that are out of character with the historical resources or alter the setting of the resource when the setting contributes to the resources' significance. The proposed ordinance's potential to impact historical resources will be addressed in the PEIR.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located on a site that contains an archeological resource as defined by Section 15064.5 of the CEQA Guidelines. Future MET towers or renewable energy systems could negatively impact archeological resources if they result in ground-disturbing activities without proper regulation and monitoring. Ground-disturbing activities, such as excavation and grading, have the potential to damage or destroy archaeological resources that may be present on or below the ground surface, particularly in areas that have not previously been developed. Any future project developed pursuant to the proposed ordinance that is located in an area that has not been previously developed would require

notification to the South Central Coastal Information Center to determine the potential existence of archaeological resources on or near the project site. The proposed ordinance's potential to impact archeological resources will be addressed in the PEIR.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located on a site that contains a unique paleontological resource or site or a unique geologic feature. Future MET towers or renewable energy systems could negatively impact paleontological resources if they result in ground-disturbing activities without proper regulation and monitoring. Ground-disturbing activities, such as excavation and grading, have the potential to damage or destroy paleontological resources that may be present on or below the ground surface, particularly in areas that have not previously been developed. Any future project developed pursuant to the proposed ordinance that is located in an area that has not been previously developed would require notification to the County's Natural History Museum (NHM) to determine the potential existence of paleontological resources on or near the project site. If the NHM notifies the preparer that there are no known paleontological resources on or near the site, then the project will result in no impact to paleontological resources. However, the NHM may note that the project site is located near a known paleontological resource site and that buildout could affect paleontological resources at the nearby site. Under this scenario, the NHM may tell the preparer to order a Phase I archaeological survey to verify the existence of any paleontological resources. If it is determined that paleontological resources may exist on the future project site, the future project would incorporate mitigation measures as provided by the NHM or the Phase I archaeological survey. If the NHM does not provide a response, it is unlikely that they know of any resources in the vicinity of the project site and no impacts would occur. Under certain circumstances, County staff may prompt the applicant to order a Phase I archaeological survey. These circumstances include the presence of a unique geological feature on or near the future project site or known paleontological resources near the future project site due to another project located nearby. The County does not currently maintain any known map of identified paleontological resource areas. The potential for the implementation of the proposed ordinance to impact paleontological resources will be addressed in the PEIR.

d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located in an area known to contain human remains. As outlined in the CEQA Guidelines, Section 15064.5, in the event that human remains are discovered during grading or construction of a project, the County will work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in the California Public Resources Code, Section 5097.98, to ensure that all human remains will be appropriately treated or disposed of with

appropriate dignity and that any items associated with Native American burials will be provided to the appropriate Native Americans, as identified by the Native American Heritage Commission. As such, potential impacts associated with implementation of the proposed ordinance would be less than significant.

6. ENERGY

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Conflict with Los Angeles County Green Building Ordinance (L.A. County Code Title 22, Ch. 22.52, Part 20 and Title 21, § 21.24.440) or Drought Tolerant Landscaping Ordinance (L.A. County Code, Title 21, § 21.24.430 and Title 22, Ch. 22.52, Part 21)?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance includes a measure requiring existing drought-tolerant native or non-native vegetation approved by County staff biologist to be retained or new such vegetation to be placed along any fencing. The proposed ordinance would not conflict with the Los Angeles County Green Building Ordinance or Drought-Tolerant Landscaping Ordinance. Impacts would be less than significant.

b) Involve the inefficient use of energy resources (see Appendix F of the CEQA Guidelines)?	☐	☐	☐	☒

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Therefore, future projects allowed by the ordinance would contribute to lowering polluting emissions from large power plants supplying power to the County. The proposed ordinance would not involve the inefficient use of energy resources; therefore, no impact would occur.

7. GEOLOGY AND SOILS

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Expose people or structures to 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.

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located in a fault-rupture hazard zone as identified by the Alquist-Priolo Earthquake Fault Zoning Act, Special Publication 42, Revised 1997, Fault-Rupture Hazards Zones in California, or within an area with substantial evidence of a known fault. However, structures that will be built pursuant the proposed ordinance will be required to comply with the County Building Code requirements. Included in the County Building Code are requirements that address seismic events through engineering requirements prior to the issuance of a building permit. Additionally, if a future temporary MET tower or renewable energy system is located in close proximity to any known fault trace or designated fault zone, the County's Department of Public Works (DPW) will likely require a geology or geotechnical report. A geology report describes the geology of the project site, whereas a geotechnical report is a geology report with an additional analysis providing construction standards to be incorporated into the future project to address any on-site seismic conditions. The seismic impact will be based on the findings of that report. Therefore, due to these requirements, the proposed ordinance does not have the potential to expose people or structures to substantial adverse effects. Impacts from the exposure of people or structures to a known fault rupture hazard zone as a result of the proposed ordinance would be less than significant.

ii) Strong seismic ground shaking?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located near a near a known activefault zone as defined within the International Conference of Building Officials Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada (for use with the 1997 Uniform Building Code). To ensure the structural integrity of all buildings and structures, a project must conform to the Seismic Requirements, Chapter 16, Section 162, Earthquake Design, as outlined within the California Building Code. Additionally, as described in Response 7(a)(i), a geology report may be required for future projects located near a known fault zone. The geology report would recommend construction standards to be incorporated into future projects to address any on-site seismic conditions. Therefore, compliance with the building codes and preparation of a geology report, if required, would reduce potential impacts from the exposure of people or structures to potential adverse effects from strong seismic ground shaking to less than significant.

iii) Seismic-related ground failure, including liquefaction and lateral spreading?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located on soils subject to liquefaction. To ensure the structural integrity of all buildings and structures, any future structures located in these areas must conform to the Seismic Requirements, Chapter 16, Section 162, Earthquake Design, as outlined within the California Building Code. Section 162 requires a soils compaction report with proposed foundation recommendations to be approved by a County structural engineer before the issuance of a building or grading permit. Additionally, as described in Response 7(a)(i), a geology report may be required for future projects located near a known fault zone. The geology report would recommend construction standards to be incorporated into future projects to address potential liquefaction or lateral spreading issues. Therefore, exposure of people or structures to potential adverse effects from seismic-related ground failure, including liquefaction and lateral spreading, as a result of implementing the proposed ordinance would be reduced to less than significant.

iv) Landslides? ☐ ☐ ☒ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located on landslide risk areas.

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 those with slide planes that will move easily. The California Geological Survey maps potential landslide areas throughout California. These maps are updated periodically and usually in response to some geological event. If a future project developed pursuant to the proposed ordinance is not located within a designated landslide area, then no impact would occur. If the proposed project is located within a designated landslide area, the DPW will likely want to review the proposed project and may require the preparation of a geology or geotechnical report to address any concerns related to potential landslides. The geology report would recommend construction standards to be incorporated into future projects to address possible landslide issues. Therefore, the potential for adverse effects from landslides as a result of the proposed ordinance would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil? ☒ ☐ ☐ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located in an area identified as having the potential for substantial soil erosion or the loss of topsoil. Utility-scale solar and wind energy systems often require large areas of land and may require a large amount of grading or other land disturbance.

For all grading permits, the County DPW requires compliance with their grading best practices manual, which includes best management practices (BMPs) for erosion control. In addition, the County's Low Impact Development (LID) Ordinance provides requirements for the management of storm runoff, which will lessen potential amounts of erosion activity resulting from stormwater. As part of the grading plan review and approval process, measures will be required to mitigate the erosion of the site per Los Angeles County Grading Code. The DPW may recommend additional measures. The proposed ordinance's potential

to result in substantial erosion or loss of topsoil will be addressed in the PEIR.

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?	☐	☐	☒	☐

General Discussion

See Responses 7(a)(i)–7(a)(iii).

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located in an area identified as having the potential for expansive soil. Utility-scale solar and wind energy systems often require large areas of land and may require a large amount of grading or other land disturbance.

Expansive soils are those that change their volume depending on the presence and extent of water saturated in the soil. For all new construction, the County is required to comply with the improvement requirements identified in the 1997 Uniform Building Code, Division III, Design Standard for Design of Slab-On- Ground Foundations to Resist the Effects of Expansive Soils and Compressible Soils, which ensure suitable structure safety in areas with expansive soils. In addition, future projects developed pursuant to the proposed ordinance would be subject to the design requirements in the County Building Code, such as specific foundation design requirements. As described in Response 7(a)(i), a geology or geotechnical report may also be required. A geotechnical report would recommend construction standards to be incorporated into the future project to address any expansive soil issues. Therefore, the potential for projects implemented under the proposed ordinance to be located on expansive soil that would create substantial risks to life or property would be less than significant.

e) Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Wastewater generated from these facilities, if any, would be minimal, depending on whether operation and maintenance buildings are proposed. Some facilities may rely on public water and sewer for the disposal of wastewater. If public sewers are located within 200 feet of a project site, the proposed project must use the public sewer system. In this case, no on-site wastewater treatment systems (OWTS), also known as septic tanks, or alternative wastewater disposal systems would be proposed.

A future renewable energy system project could propose to discharge domestic waste to an OWTS. If an

OWTS is proposed, discharged wastewater must conform to the RWQCB's applicable standards, including the regional basin plan and the California Water Code. California Water Code, Section 13282, allows RWQCBs to authorize a local public agency to issue permits for OWTS "to ensure that systems are adequately designed, located, sized, spaced, constructed, and maintained." The County's Department of Public Health will require testing, which includes a geotechnical report and percolation testing. Therefore, future projects will have to demonstrate the presence of soils capable of adequately supporting the use of OWTS or alternative wastewater disposal systems as determined by the authorized local public agency.

Therefore, potential impacts related to soils being incapable of adequately supporting the use of OWTS or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater would be less than significant.

f) Conflict with the Hillside Management Area Ordinance (L.A. County Code, Title 22, § 22.56.215) or hillside design standards in the County General Plan Conservation and Open Space Element?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located in a designated Hillside Management Area. The proposed ordinance requires the top of a wind energy system to be located at least 50 vertical feet and 50 horizontal feet from a significant ridgeline identified in the general plan, in an applicable area or community plan, or in an applicable community standards district. Projects developed pursuant to the proposed ordinance would be required to comply with this requirement, as well as the design standards of the Hillside Management Area Ordinance and County General Plan Conservation and Open Space Element. Therefore, the proposed ordinance would not conflict with the Hillside Management Area Ordinance or the County General Plan Conservation and Open Space Element, and impacts would be less than significant.

8. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Generate greenhouse gas (GHGs) emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐

General Discussion

GHG emissions are said to result in an increase in the Earth's average surface temperature, commonly referred to as global warming. This rise in global temperature is associated with long-term changes in precipitation, temperature, wind patterns, and other elements of the Earth's climate system, known as climate change. These changes are now broadly attributed to GHG emissions, particularly those emissions that result from the human production and use of fossil fuels. GHGs include carbon dioxide (CO_2),

methane (CH_4), halocarbons, and nitrous oxide (N_2O), among others. Human-induced GHG emissions are a result of energy production and consumption and personal vehicle use, among other sources.

Climate changes resulting from GHG emissions could produce an array of adverse environmental impacts, including water supply shortages, severe drought, increased flooding, sea-level rise, air pollution from increased formation of ground-level ozone (O_3) and particulate matter ($PM_{2.5}$, PM_{10}), ecosystem changes, increased wildfire risk, agricultural impacts, and ocean and terrestrial species impacts, among other adverse effects.

The County is currently preparing a community climate action plan (CCAP) to evaluate, track, and reduce GHG emissions in the unincorporated areas of the County. In January 2014, the County released the public review draft of the Unincorporated Los Angeles County Community Climate Action Plan 2020.[3] The final version of this document will become a component of the Air Quality Element of the Los Angeles County General Plan 2035. To reduce the impacts of climate change, the County has set a target to reduce GHG emissions from community activities in the unincorporated areas of the County by at least 11% below 2010 levels by 2020. The CCAP describes the County's plan for achieving this goal, includes specific strategy areas for each of the major emissions sectors, and provides details on the 2010 and projected 2020 emissions in the unincorporated areas (County of Los Angeles 2014, p. ES-1). Public agencies and private developers will be able to use the CCAP to comply with project-level review requirements pursuant to CEQA. It should be noted that an individual project's GHG emissions will generally not result in direct impacts under CEQA, as the climate change issue is global in nature; however, an individual project could be found to contribute to a potentially significant cumulative impact. CEQA Guidelines Section 15130(f) states that an environmental impact report (EIR) shall analyze GHG emissions resulting from a proposed project when the incremental contribution of those emissions may be cumulatively considerable.

Although the proposed ordinance would facilitate the development of renewable energy sources in place of a typical fossil-fuel-based electrical generation, resulting in long-term air quality benefits, future renewable energy systems and MET tower development would have the potential to result in emissions related to vehicle trips. Due to the brief construction period associated with the installation of small-scale renewable energy facilities and MET towers, and because traffic generated by the construction of these facilities would be relatively minor, GHG impacts as a result of construction emissions would be less than significant. Utility-scale renewable energy systems would require longer construction schedules and more construction equipment, off-site trucks hauling construction material, and worker trips. GHG emissions from these types of projects allowed pursuant to the proposed ordinance will be addressed in the PEIR.

b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ☐ ☐ ☐ ☐

General Discussion

In 2006, the state passed the Global Warming Solutions Act of 2006, commonly referred to as Assembly Bill (AB) 32, which set the GHG emissions reduction goal for the State of California into law. The law requires that by 2020, state emissions must be reduced to 1990 levels by reducing GHG emissions from significant sources via regulation, market mechanisms, and other actions.

Senate Bill (SB) 375, passed in 2008, links transportation and land use planning with global warming. It

[3] County of Los Angeles. 2014. *Unincorporated Los Angeles County Community Climate Action Plan 2020*. Public Draft. January. Prepared with assistance from ICF International (ICF 027920.0.011) for the County of Los Angeles Department of Regional Planning. Accessed March 17, 2014. http://planning.lacounty.gov/ccap/draft.

requires the California Air Resources Board to set regional targets for the purpose of reducing GHG emissions from passenger vehicles. Under this law, if regions develop integrated land use, housing, and transportation plans that meet SB 375 targets, new projects in these regions can be relieved of certain review requirements under CEQA.

As described in Response 8(a), the County is currently preparing a CCAP to evaluate, track, and reduce GHG emissions in the unincorporated areas of the County. In January 2014, the County released the public review draft of the CCAP.

The County's plans and regulations support that development of renewable energy. The proposed ordinance would help facilitate the development of renewable energy within the County and assist the County to meet the goals of AB 32 and the CCAP. Impacts would therefore be less than significant. Additionally, renewable energy projects would be required to comply with the CCAP programs, once the final CCAP has been adopted..

9. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?	☐	☐	☒	☐

General Discussion

Hazardous materials are classified at the federal (Resources Conservation and Recovery Act (RCRA) wastes or state level (non-RCRA wastes). California defines hazardous materials as any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or future hazard to human health and safety or to the environment if released (Health and Safety Code, Section 25501(p)).

In California, the Department of Toxic Substances Control is responsible for classifying hazardous materials. Hazardous materials are commonly stored and used by a variety of businesses and residences, and are commonly encountered during construction activities. Hazardous materials are routinely used, stored, and transported in conjunction with the construction and operation of industrial and some commercial/ retail businesses, educational facilities, and hospitals. In industrial and commercial uses, hazardous materials may include petroleum products and polychlorinated biphenyls (PCBs), and in residential uses, hazardous materials may include landscaping chemicals and cleaning solvents. Hazardous materials may be stored in small quantities in buildings and structures, in aboveground storage tanks, underground storage tanks (USTs), drums, and other types of containers. Typically, USTs are used by businesses such as gasoline stations and auto mechanics. Processing, transportation, and transfer operations are other activities that have the potential to pose a risk to human health and the environment from the accidental release of hazardous materials. Regulations such as the Hazardous Materials Business Plan requirements of the Health and Safety Code, Fire Code storage and containment requirements, or other applicable regulatory requirements are intended to prevent accidental releases of hazardous substances and to minimize risks should an accident or spill occur.

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Hazardous materials used during construction of temporary MET towers or renewable energy systems may include gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, and other supplies. All hazardous materials would be transported, stored, and properly disposed of in compliance with all applicable laws and regulations. The accidental release of hazardous materials or wastes during construction activities is possible. The accidental release of hazardous materials or wastes would be promptly contained and abated in accordance with all applicable laws and regulatory requirements, and therefore would not be expected to result in a significant impact.

During the operation of future temporary MET towers or renewable energy systems, limited quantities of hazardous materials would be stored on site. Materials may include fire suppressant and transformer insulating oil. Future projects would be required to develop and implement a hazardous materials and hazardous waste management program for both construction and operational phases. Therefore, implementation of the proposed ordinance would result in less than significant impacts relative to 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?

☐ ☐ ☒ ☐

Valley Fever spores are released into the environment by any disturbance to the desert soils. Large scale disturbances caused by utility-scale energy projects have huge potential to release hazardous materials (in the form of spores) into the air, causing severe disease in both residents and solar workers. This should be labeled Potentially Significant.

General Discussion

See Response 9(a). Additionally, if lead-based paint is found during construction, the applicant would comply with County requirements and provide the Department of Public Works Building and Safety Division and the County Fire Department Health and Hazardous Materials Division with a copy of the qualifications/license of the lead-based paint abatement contractor who will perform the abatement or removal of lead-based paint. If required by the County, the applicant would prepare and submit a hazardous building materials demolition assessment and management plan to the DPW and Fire Department for review and approval to ensure compliance with all applicable federal, state, and local laws and regulations. Occupational Safety and Health Administration regulations are in place to assure that these materials are safely removed prior to or during demolition and renovation activities. Therefore, through compliance with regulations, projects developed pursuant to the proposed ordinance would result in a less than significant impact related to the release of hazardous materials, such as asbestos and lead.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses?

☐ ☐ ☒ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located within one-quarter mile of an existing or proposed school and could propose the storage and handling of hazardous substances. Future project sites could include facilities listed in the EPA's Resource Conservation and Recovery Information System as a hazardous materials handler However, the proposed ordinance will not result in significant impacts to the

public or environment because all storage, handling, transport, emission, and disposal of hazardous substances will be in full compliance with local, state, and federal regulations (see Response 9(a)).

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located on a site listed in the State of California Hazardous Waste and Substances Sites List compiled pursuant to Government Code Section 65962.5.

However, the proposed ordinance will not create a significant hazard to the public or the environment because if a property is on the list, the County will not issue a building permit until any significant hazard has been reported and remediated to the satisfaction of the Department of Public Health – Environmental Health Division. Because remediation of the site will occur prior to issuance of a building permit, future projects developed pursuant to the proposed ordinance will not create a significant hazard to the public or the environment and impacts would be less than significant.

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, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located on a site within an adopted airport land use plan or within 2 miles of a public or private airport. However, such projects would not result in hazards to airport safety or surrounding land uses because they would be evaluated by the Airport Land Use Commission. Also, if a renewable energy facility or temporary MET tower is located within the FAA Height Notification Surface due to its proximity to an airport, notice will be filed with the FAA. The applicant would complete FAA Form 7460-1 Notice of Proposed Construction or Alteration and submit the form to the FAA for review. The FAA would review the project and identify whether the project is an airspace obstruction or hazard. If not, the project would comply with the FAA Regulations, Part 77, Objects Affecting Navigable Airspace.

Lastly, the proposed ordinance includes several measures for aviation safety, as follows:

1. A utility-scale renewable energy facility shall not be located within the Runway Protection Zone of any airport, as depicted in the County's airport land use plans.
2. A utility-scale renewable energy facility shall not penetrate the imaginary surfaces (primary,

approach, transitional, horizontal, and conical surfaces) defined by the FAA Federal Aviation Regulations Part 77 to protect the use of navigable airspace.

3. A safety light that meets FAA standards shall be required for all wind towers that exceed a height of 200 feet. A safety light may be required on shorter wind towers when deemed necessary by any of the aviation-related agencies. No other lights shall be placed on such wind towers.

Therefore, projects developed pursuant to the proposed ordinance would not result in hazards to airport safety. Impacts would be less than significant.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? ☐ ☐ ☒ ☐

In January 2010, a crop duster in the Central Valley was killed when his plane hit the guy wires of a met. tower constructed for a potential wind project. This should be labeled Potentially Significant.

See Response 9(e) regarding FAA notification and aviation safety measures of the proposed ordinance.

g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? ☐ ☐ ☒ ☐

Fire Dept. in Kern County have reported great difficulty in fighting fires near or under wind turbines. The turbines make it impossible for air tankers to get close enough to the ground to release fire retardants. This should be labeled Potentially Significant.

General Discussion

The Office of Emergency Management (OEM) is responsible for organizing and directing the preparedness efforts of the Emergency Management Organization of Los Angeles County. The OEM is the day-to-day Los Angeles County Operational Area coordinator for the County. The emergency response plan for the unincorporated areas of the county is the Operational Area Emergency Response Plan, which is prepared by the OEM. The Operational Area Emergency Response Plan strengthens short- and long-term emergency response and recovery capability, and identifies emergency procedures and emergency management routes in the County. The County has also prepared a Local All Hazards Mitigation Plan to comply with federal law and to be eligible for disaster funding. Figure 9.7 of the Safety Element of the Draft General Plan depicts the County's fire disaster routes and Figure 9.9 depicts the County's designated disaster routes. These figures identify the routes that emergency responders are likely to take when responding to an emergency scenario, the routes that residents will be funneled toward to exit an area affected by a disaster, and the field facilities that will be used by emergency responders to coordinate their activities.

The project proposes an ordinance amending the County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located along an identified disaster route. However, such projects would not bring a substantial amount of additional people to the vicinity served by the routes or facilities. Nor would such projects block existing access routes.

Some utility-scale facilities may require fulltime employees to operate the Operation and Maintenance (O&M) buildings. Employees may include a facilities manager, engineers, technicians, mechanics, and security staff. If deemed necessary by the County a project-specific emergency response plan would be prepared and would coordinate with any existing designated disaster routes in the area and impacts would be less than significant.

h) Expose people or structures to a significant risk of loss, injury or death involving fires, because the project is located:				
i) within a Very High Fire Hazard Severity Zone (Zone 4)?	☒	☐	☐	☐
ii) within a high fire hazard area with inadequate access?	☒	☐	☐	☐
iii) within an area with inadequate water and pressure to meet fire flow standards?	☒	☐	☐	☐
iv) within proximity to land uses that have the potential for dangerous fire hazard?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located in a Very High Fire Hazard Severity Zone. Additionally, such projects may require use or storage of combustible materials, such as transformers for wind energy systems, that may be located in areas with little water supply. Impacts related to fire risk resulting from implementation of the proposed ordinance will be addressed in the PEIR.

i) Does the proposed use constitute a potentially dangerous fire hazard?	☒	☐	☐	☐

General Discussion

As indicated in Response 9(h), future projects developed pursuant to the proposed ordinance may require use or storage of combustible materials, such as transformers for wind energy systems. Impacts related to fire risk resulting from implementation of the proposed ordinance will be addressed in the PEIR.

10. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

General Discussion

The County is split between two water quality regions: the Los Angeles Region and the Lahontan Region. Each regional board prepares and maintains a basin plan that identifies water quality objectives to protect all beneficial uses of the waters of that region. The objectives detailed in the basin plans range from controlling the amount of

oxidized ammonia in inland surface water to regulating the mineral quality of groundwater. The basin plans achieve the identified water quality objectives through implementation of Waste Discharge Requirements (WDRs). These water quality objectives are achieved by employing three strategies for addressing water quality issues: control of point-source pollutants, control of nonpoint-source pollutants, and remediation of existing contamination.

Point sources of pollutants 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 permitting under California's WDRs and the National Pollutant Discharge Elimination System (NPDES) program; permits are issued by the appropriate Regional Water Quality Control Board (RWQCB) and may set discharge limitations or other discharge provisions.

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area includes the entire unincorporated County. Any project developed pursuant to the proposed ordinance that would connect to a municipal wastewater system would not include any point-source discharges itself but would need to comply with all applicable wastewater treatment standards maintained by the RWQCB as part of obtaining the applicable WDR or NPDES permit. Therefore, projects developed pursuant to the proposed ordinance that connect to a municipal wastewater treatment system would not violate any water quality standards or discharge requirements related to point sources, and impacts would be less than significant.

As indicated in Response 7(e), future renewable energy systems could propose to dispose of wastewater on site through an OWTS. Such projects would include point-source discharges and would not be subject to NPDES requirements in most cases. However, these projects would be required to comply with WDRs of the State of California (Title 23 of the California Code of Regulations) and WDRs issued by the local RWQCB. Such projects would have to demonstrate compliance with these requirements in order to receive construction permits. Therefore, these projects would have no impact upon wastewater treatment requirements.

Non-point sources of pollutants are typically derived from project site runoff caused by rain or irrigation and have been classified by the EPA into the following categories: agriculture, urban runoff, construction, hydromodification, resource extraction, silviculture (forestry cultivation), and land disposal, according to the basin plan for the Los Angeles RWQCB. This type of pollution is not addressed by the same regulatory mechanisms used to control point sources. Instead, California's Nonpoint Source Management Plan describes a three-tiered approach including the voluntary use of BMPs, the regulatory enforcement of the use of BMPs, and effluent limitations. Generally speaking, each RWQCB implements the least restrictive tier until more stringent enforcement is necessary.

Projects developed pursuant to the proposed ordinance would be required to comply with the requirements of the LID Ordinance, as well as the requirements of the County's standard urban stormwater management plan (SUSMP) in order to control and minimize potentially polluted runoff. Because all projects are required to comply with these requirements in order to obtain construction permits, they would not impact any nonpoint-source requirements.

Remediation of existing pollutants emanating from the project site and accumulating in the local groundwater or nearby water bodies is conducted by the RWQCBs through a number of programs. These programs include monitoring the following:

- USTs
- Wells
- Spills

- Leaks
- Aboveground petroleum storage tanks
- U.S. Department of Defense and U.S. Department of Energy sites
- Toxic pits.

If any of these exist on any of the future project sites pursuant to the proposed ordinance, then remediation will be required before a proposed project can obtain building permits. Again, because future projects would be required to remediate any contamination emanating from the project site prior to project development, projects developed under the proposed ordinance will be compliant with the applicable remediation requirements and impacts would be less than significant.

While the water quality standards and prescriptive actions in Los Angeles Region and the Lahontan Region may differ, future projects developed pursuant to the proposed ordinance would be required to comply with all wastewater discharge requirements identified by the applicable basin plan as well as additional wastewater discharge requirements adopted by the County. Therefore, such projects would not violate any water quality requirements or WDRs as the projects would be required to comply with these standards and those of the NPDES in order to obtain construction permits. Impacts related to implementation of the proposed ordinance would be less than significant.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Temporary MET towers and small-scale renewable energy systems are not expected to use groundwater for any purposes, including irrigation, domestic, or commercial demands. Utility-scale renewable energy facilities may use groundwater for cleaning of the equipment on the site, such as wind energy system rotor blades or solar panels. The purpose of cleaning is to eliminate dust and insect buildup, which could otherwise degrade performance. Also, as indicated in the proposed ordinance, future project sites shall be watered during construction activities such as grading in order to control fugitive dust. Groundwater supply impacts as a result of implementation of the proposed ordinance will be addressed in the PEIR.

An impact to groundwater recharge would occur if implementation of the proposed ordinance would result in an increase in the amount of impervious surfaces on the project site relative to current on-site conditions, thus preventing water from infiltrating into the groundwater table over a larger area. The PEIR will address whether future projects developed pursuant to the proposed ordinance would result in a substantial increase in the amount of impervious surfaces, thus resulting in an impact to groundwater recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area includes the entire unincorporated County. Future projects developed pursuant to the proposed ordinance that involve ground disturbance would be required to minimize erosion, sedimentation, and other impacts to the natural hydrology and drainage patterns of the site. Such projects would be required to submit a drainage plan showing the extent of drainage impacts that complies with all requirements to the satisfaction of the DPW. Projects would also be required to comply with the most recent County standards for addressing drainage impacts and to obtain all agency approvals.

As indicated in Response 10(a), projects would be required to comply with the requirements of the LID Ordinance and the County's SUSMP, which require site design measures, source control and/or treatment control BMPs. These measures will control erosion and sedimentation. The Los Angeles RWQCB addresses on-site drainage through its construction, industrial, and municipal permit programs. These permits require measures to minimize or prevent erosion and reduce the volume of sediments and pollutants in a project's runoff and discharges based upon the size of the project site. The specific permit(s) and measures applicable to future projects development pursuant to the proposed ordinance will be determined in consultation with the DPW. The drainage plan and required permits would ensure future projects developed pursuant to the proposed ordinance would not result in impacts related to substantial erosion or siltation on or off site.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area includes the entire unincorporated County. Future projects developed pursuant to the proposed ordinance that involve ground disturbance would be required to minimize erosion, sedimentation, or other impacts to the natural hydrology and drainage patterns of the site. Such projects would be required to submit a drainage plan showing the extent of drainage impacts that complies with all requirements to the satisfaction of the DPW. The projects would also be required to comply with the most recent County standards for addressing drainage impacts and to obtain all agency approvals.

As indicated in Response 10(a), projects would be required to comply with the requirements of the LID Ordinance and the County's SUSMP, which require site design measures, source control BMPs, and/or treatment control BMPs. These measures will help mitigate drainage impacts. The Los Angeles RWQCB addresses on-site drainage through its construction, industrial, and municipal permit programs. The specific permit(s) and measures applicable to future project development pursuant to the proposed ordinance will be determined in consultation with the DPW. The drainage plan and required permits would ensure that future projects developed pursuant to the proposed ordinance would not result in significant impacts related to substantial erosion or siltation on or off site.

e) Add water features or create conditions in which standing water can accumulate that could increase	☐	☐	☐	☒

habitat for mosquitoes and other vectors that transmit diseases such as the West Nile virus and result in increased pesticide use?

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Future renewable energy projects developed pursuant to the proposed ordinance would not include water features or create conditions in which standing water can accumulate. Therefore, implementation of the proposed ordinance would not increase habitat for mosquitoes and other vectors that transmit diseases and would not result in increased pesticide use; no impact would occur.

f) 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? ☐ ☐ ☒ ☐

General Discussion

Construction of impervious surfaces such as roads and driveways reduces the amount of rainfall that can infiltrate the ground surface and move to the subsurface. As a result, the volume of surface water runoff increases within a watershed; subsequently, artificial conveyances such as gutters, storm pipes, and natural channel improvements to accommodate additional volume accelerate the rate of flow of water in the watershed. This higher volume of faster-moving surface water runoff within a watershed results in a higher probability and increased severity of flooding within a watershed, if facilities are not adequately maintained or constructed to carry peak flow capacity.

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Future renewable energy projects developed pursuant to the proposed ordinance may result in the development of impervious surfaces, such as access roads, that could contribute to runoff water. However, as indicated in Response 10(a), projects would be required to comply with the requirements of the LID Ordinance and the County's SUSMP, which require site design measures, source control BMPs, and/or treatment control BMPs. These measures will help mitigate drainage impacts and control runoff. Stormwater runoff is also regulated by the NPDES permit and the County's Stormwater Ordinance. The drainage plan and required permits would ensure that future projects developed pursuant to the proposed ordinance would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

g) Generate construction or post-construction runoff that would violate applicable stormwater NPDES permits or otherwise significantly affect surface water or groundwater quality? ☐ ☐ ☒ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. For any

future renewable energy projects developed pursuant to the proposed ordinance that are subject to the NPDES Construction General Permit, the applicant must file permit registration documents including a notice of intent and a stormwater pollution prevention plan. Because such projects must comply with the requirements of the NPDES program related to construction runoff, impacts would be less than significant.

h) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84 and Title 22, Ch. 22.52)?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Future renewable energy projects developed pursuant to the proposed ordinance are required to comply with the requirements of the County's LID Ordinance. Therefore, implementation of the proposed ordinance would not conflict with the County's LID Ordinance and impacts would be less than significant.

i) Result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project does not involve the development of an industrial facility that would discharge its waste directly into the waters of or near an Area of Special Biological Significance or into a watercourse or water body that ultimately empties into said waters, which would result in significant impacts. Nor would the project generate a significant volume of nonpoint-source pollutants, such as if the entire project site were developed with impervious surfaces and all runoff was allowed to leave the site and eventually reach the Area of Special Biological Significance. Since future projects developed pursuant to the proposed ordinance would adhere to the County's LID Ordinance and would not result in a substantial amount of nonpoint sources of pollutants, impacts would be less than significant.

j) 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)?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. As indicated in Response 7(e), wastewater generated from these facilities, if any, would be minimal, depending on whether operation and maintenance buildings are proposed. If a future renewable energy system project proposes to discharge domestic waste to an OWTS, then the DPW and the Department of Public Health would determine whether or not the site is capable of supporting such a system from a geotechnical and public health perspective. The location of nearby water bodies, watercourses, and drainage courses would be identified and if any wastewater released on the project site may emerge in these waters of the United States the project would be subject to an NPDES permit.

Additionally, any discharged wastewater must conform to the RWQCB's applicable standards, including the regional basin plan and the California Water Code. California Water Code, Section 13282, allows RWQCBs to authorize a local public agency to issue permits for OWTS "to ensure that systems are adequately designed, located, sized, spaced, constructed, and maintained." Therefore, impacts would be less than significant.

k) Otherwise substantially degrade water quality?	☐	☐	☒	☐

General Discussion

Refer to Responses 10(a), 10(f), and 10(i).

l) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, or within a floodway or floodplain?	☐	☐	☐	☒

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project does not involve housing and therefore will have no impact.

m) Place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain?	☐	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area includes the entire unincorporated County. Therefore, facilities developed pursuant to the proposed ordinance may be located in areas identified as being 100-year flood hazard areas. However, these facilities would not place structures, access roads, or other improvements that would impede or redirect flood flows because, pursuant to the proposed ordinance, existing topography and watercourses shall be retained or restored to preexisting conditions following construction and during operations except for drainage features specifically designed to mitigate drainage impacts. All projects that involve ground-mounted components or ground disturbance would be required to submit a drainage plan that complies with all requirements to the satisfaction of the DPW showing the extent of drainage impacts, comply with the most recent County standards for addressing drainage impacts, and obtain all agency approvals. Therefore, impacts would be less than significant.

n) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area includes the entire unincorporated County. Therefore, facilities developed

pursuant to the proposed ordinance may be located in a dam inundation area as mapped in accordance with California Government Code Section 8589.5. However, these facilities would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. Potential impacts will be addressed in the PEIR.

o) Place structures in areas subject to inundation by seiche, tsunami, or mudflow?	☒	☐	☐	☐

General Discussion

A seiche is the sudden oscillation of water that occurs in an enclosed, landlocked body of water due to wind, earthquake, or other factors. A tsunami is an unusually large wave or set of waves that is triggered in most cases by a seaquake or an underwater volcanic eruption. A mudflow is flow consisting predominantly of earthen materials/soil and water.

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area includes the entire unincorporated County. Therefore, facilities developed pursuant to the proposed ordinance may be located in a dam inundation area, potential tsunami inundation zone, or landslide zone. Potential impacts will be addressed in the PEIR.

11. LAND USE AND PLANNING

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Physically divide an established community?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The temporary influx of construction personnel, equipment, and vehicles; increased construction activity, including vegetation removal and grading; and the generation of dust during construction of renewable energy facilities would potentially cause disruptions in communities, if not carefully managed. Additionally, utility-scale renewable energy facilities may include access roads and utility lines that would potentially physically divide any established community. These potential impacts will be addressed in the PEIR.

b) Be inconsistent with the applicable County plans for the subject property including, but not limited to, the General Plan, specific plans, local coastal plans, area plans, and community/neighborhood plans?	☐	☐	☐	☒

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The

project is consistent with the applicable goals and policies of the General Plan (1980). Such policies include:

> Policy No. 2 of the Conservation and Open Space Element, "Support the conservation of energy and encourage the development and utilization of new energy sources including geothermal, thermal waste, solar, wind and ocean-related sources" (General Plan, Pg. II-26).
> Policy No. 3 of the Conservation and Open Space Element, " Promote the use of solar energy to the maximum extent possible" (General Plan, Pg. II-26).
>
> Policy No. II-15 of the Conservation and Open Space Element Recommended Action Plan, "Support stronger tax and cost-saving incentives to encourage greater use of alternative energy sources such as solar energy and wind power " (General Plan, Pg. VIII-39).

All other supporting plans must be consistent with the General Plan and where renewable energy development is mentioned in such plans, they too are supportive of renewable energy development. Therefore, no impact would occur.

c) Be inconsistent with the County zoning ordinance as applicable to the subject property? ☐ ☐ ☐ ☒

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Any facilities developed pursuant to the proposed ordinance must comply with the underlying zoning. If a future project incorporates a zone change, then the project would be consistent with the zoning after the change, if approved; therefore, no impact would occur.

d) Conflict with Hillside Management criteria, Significant Ecological Areas conformance criteria, or other applicable land use criteria? ☐ ☐ ☒ ☐

This should be labeled Potentially Significant. SEAs are the home of many threatened species that would be impacted by adjacent construction of expanses of solar panels and/or wind turbines. Please see attached article documenting bird kills solar installations due both to "lake effects" and solar flux.

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Any facilities developed pursuant to the proposed ordinance must comply with the Hillside Management criteria, SEA criteria, and other applicable land use criteria. Additionally, as indicated in Response 7(f), the proposed ordinance requires the top of a wind energy system to be located at least 50 vertical feet and 50 horizontal feet from a significant ridgeline identified in the general plan, in an applicable area or community plan, or in an applicable community standards district. Therefore, the proposed ordinance would not conflict with the Hillside Management Area Ordinance, SEA conformance criteria, or other applicable land use criteria, and impacts would be less than significant.

12. MINERAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
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?	☒	☐	☐	☐

General Discussion

Mineral resources are commercially viable aggregate or mineral deposits, such as sand, gravel, oil, and other valuable minerals. The County depends on the State of California's Geological Survey (State Department of Conservation, Division of Mines and Geology) to identify deposits of regionally significant aggregate resources. These clusters or belts of mineral deposits are designated as Mineral Resources Zones (MRZ-2s). Presently, there are four major MRZ-2 zones designated in the County: the Little Rock Creek Fan, Soledad Production Area, Sun Valley Production Area, and Irwindale Production Area.

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located on land designated as MRZ-2. Potential impacts will be addressed in the PEIR.

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?	☒	☐	☐	☐

General Discussion

See Response 12(a).

13. NOISE

Would the project result in:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Exposure of persons to, or generation of, noise levels in excess of standards established in the County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?	☒	☐	☐	☐

General Discussion

Noise levels are regulated by the County's Noise Control Ordinance. The ordinance defines terms, identifies noise zones, and provides standards for interior and exterior noise and hours for noise regulation. County Code Section 12.12 provides additional regulation of construction noise. The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Development of these facilities may impact the existing noise levels within the vicinity of the project. The PEIR will analyze the potential noise impacts from both construction and operation phases of future renewable energy systems that could be implemented under the proposed ordinance.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐

General Discussion

See Response 13(a). The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Development of these facilities may impact the existing noise levels within the vicinity of the projects and may result in the generation of excessive ground-borne vibration or ground-borne noise levels. The PEIR will analyze the potential noise impacts from both construction and operation phases of future renewable energy systems that could be implemented under the proposed ordinance.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from parking areas?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Development of these facilities may impact the existing noise levels within the vicinity of the projects and may lead to a substantial permanent increase in ambient noise. As indicated in Response 13(a), the PEIR will analyze the potential noise impacts that may result from both construction and operation phases of future renewable energy systems that could be implemented under the proposed ordinance.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from amplified sound systems?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The operation of these facilities would not involve any uses that may create substantial temporary or periodic increase in ambient noise levels, including but not limited to extractive industry; outdoor commercial or industrial uses that involve crushing, cutting, drilling, grinding, or blasting or raw materials; truck depots, transfer stations, or delivery areas; or outdoor sound systems. However, construction noise may create temporary increases in

ambient noise levels. A further assessment of these potential impacts will be addressed in the PEIR.

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, would the project expose people residing or working in the project area to excessive noise levels?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located on a site within an adopted airport land use plan or within 2 miles of a public or private airport. The PEIR will analyze the potential noise impacts that may result from both construction and operation phases of future renewable energy systems that could be implemented under the proposed ordinance.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, future temporary MET towers or renewable energy systems may be located within the vicinity of a private airstrip. The PEIR will analyze the potential noise impacts that may result from both construction and operation phases of future renewable energy systems that could be implemented under the proposed ordinance.

14. POPULATION AND HOUSING

Would the project:	***Potentially Significant Impact***	***Less Than Significant Impact with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Induce substantial 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)?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance would not induce substantial population growth in an area because it does not propose any physical or regulatory change that would remove a restriction or encourage

population growth in an area, including but not limited to the following: new or extended infrastructure or public facilities; new commercial or industrial facilities; large-scale residential development; or accelerated conversion of homes to commercial or multiple-family use. The proposed ordinance also does not propose regulatory changes including general plan amendments, specific plan amendments, zone reclassifications, or sewer or water annexations; or Local Agency Formation Commission annexation actions. Additionally, these amendments do not increase density or intensity of land use that is inconsistent with the general plan. Impacts as a result of implementation of the proposed ordinance would be less than significant.

b) Displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere? ☐ ☐ ☒ ☐

This should be labeled Potentially Significant. Examples abound throughout the nation and in Canada of rural families being forced to flee their homes due to negative impact of noise and flicker from wind turbines.

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance would allow renewable energy systems and temporary MET towers in various zones subject to standards and limitations. These facilities are often accessory to residential uses. For example, small-scale roof-mounted renewable energy systems may provide energy to homes. Implementation of the proposed ordinance would not displace or cause the demolition of existing housing; impacts would be less than significant.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? ☐ ☐ ☒ ☐

Should be labeled Potentially Significant - please see note above.

General Discussion

See Response 14(b). Facilities that would be developed pursuant to the proposed ordinance are unlikely to displace housing and therefore would not displace a substantial number of people or necessitate the construction of replacement housing elsewhere. Additionally, construction of these facilities would not cause the relocation of people. Impacts from implementation of the proposed ordinance would be less than significant.

d) Cumulatively exceed official regional or local population projections? ☐ ☐ ☒ ☐

General Discussion

The Los Angeles County General Plan and Housing Element uses population, household, and employment projections from a growth forecast that is developed from the Southern California Association of Governments (SCAG) 2008 Regional Transportation Plan. The population projections and household projections for unincorporated County are organized by the eight SCAG subregions. SCAG has established the County's Regional Housing Needs Assessment allocation at 57,176 units.

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. As indicated in Response 14(a), the proposed ordinance would not induce substantial population growth in any area. Additionally, with such high population projections, it is unlikely that the proposed ordinance combined with the growth from other projects would induce substantial population growth that would exceed the County's population projections. Impacts would be less than significant.

15. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
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 in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. As facilities are developed pursuant to the proposed ordinance, a direct increase in demand for fire protection services may occur during construction because of increased activity, higher amounts of fuel on the sites, and a greater number of ignition sources on the sites. Similarly, an increase in the risk of wildland fire would occur during decommissioning of any facilities, when there is increased activity and additional ignition sources on the sites. For example, potential ignition sources during construction and decommissioning of utility-scale renewable energy facilities include chainsaws, wood chippers, grinders, torches, earthmoving equipment, and other vehicles that could create sparks, be a source of heat, or leak flammable materials, as well as dynamite and blasting materials, compost piles, and human activities and waste that would increase the possibility of fire. Construction- and decommissioning-related accidents could result in the need for fire protection services.

During operation and maintenance, sources of ignition at renewable energy facility sites are expected to decrease considerably from existing and construction conditions due to the reduced fuels on the site. Equipment that presents ignition sources during operation may include transformers, capacitors, electric transmission lines, the operations and maintenance building, the substation, vehicles, and small gas- or electric-powered hand tools. All this equipment represents a risk of sparking or igniting nearby fuels when combined with vegetation, wildlife, vandals, and/or high wind conditions. Inverters, solar panels, and trackers represent potential ignition sources that are considered to have a low likelihood of causing fires.

An indirect increase in demand for fire protection services could occur where a project causes an increase in population, which could then result in increases in fire emergency service calls. Of the employees required during construction and decommissioning, few, if any, are expected to temporarily relocate to the area. During operation, utility-scale projects may require small numbers of employees at the sites to control operations and maintenance activities. The permanent addition of employees (and their families) to the area is not expected to result in a long-term, indirect increase in emergency services calls such that an increase in fire protection services or facilities would be needed.

The PEIR will further address potential impacts to fire protection services or facilities as a result of implementation of the proposed ordinance.

Sheriff protection? ☐ ☐ ☒ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The development of small-scale renewable energy systems and temporary MET facilities would not result in an increase in permanent residents that would require additional sheriff protection. Utility-scale renewable energy systems may require small numbers of employees, who may relocate to the area with their families. This slight increase of residents in the area is not expected to substantially increase the number of sheriff protection service calls such that new or expanded sheriff facilities or staff would be required to maintain acceptable service ratios and response times. Impacts would be less than significant.

Schools? ☐ ☐ ☒ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project does not include housing and therefore would not directly cause an increase in population that would require new or expanded schools. The development of small-scale renewable energy systems and temporary MET facilities would not result in an increase in permanent residents that would indirectly impact school service levels. Utility-scale renewable energy systems may require small numbers of employees, who may relocate to the area with their families. This slight increase of residents in the area is not expected to substantially increase the number of students such that new or expanded schools would be required. Impacts resulting from implementation of the proposed ordinance would be less than significant.

Parks? ☐ ☐ ☒ ☐

Should be labeled Potentially Significant. Damage to viewshed caused by solar and wind installations is particularly damaging to parks, such as the Antelope Valley California Poppy Reserve, visited because of its worldwide fame as a scenic resource.

General Discussion

Parks within the County are operated and maintained by the Department of Parks and Recreation. As of 2010, there were approximately 153 recreational facilities managed by the Department of Parks and Recreation, totaling approximately 65,528 acres of recreation and open space. The County General Plan, Regional Recreation Areas Plan, provides the standard for the allocation of parkland in the unincorporated county. This standard is 4 acres of local parkland per 1,000 residents, and 6 acres of regional parkland per 1,000 residents.

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project does not include housing and therefore would not directly cause an increase in population that would require new or expanded parks. The development of small-scale renewable energy systems and temporary MET facilities would not result in an increase in permanent residents that would indirectly impact parks. Utility-scale renewable energy systems may require small numbers of employees, who may relocate to the area with their families. This slight increase of employees or residents in the area is not expected to substantially increase the use of existing park facilities; impacts would be less than significant.

Libraries? ☐ ☐ ☒ ☐

General Discussion

Library services are provided by the County of Los Angeles Public Library. There are approximately 84 libraries operated by the County, with roughly 7.5 million volumes in their book collections. The County of Los Angeles Public Library is a special district and is primarily funded by property taxes, but other funding mechanisms include a Mello-Roos Community Facilities District, developer impact fees, developer agreements, and a voter-approved special tax.

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project does not include housing and therefore would not directly cause an increase in population that would require new or expanded libraries. The development of small-scale renewable energy systems and temporary MET facilities would not result in an increase in permanent residents that would indirectly impact libraries. Utility-scale renewable energy systems may require small numbers of employees, who may relocate to the area with their families. This slight increase of employees or residents in the area is not expected to substantially increase the use of existing libraries; therefore, impacts would be less than significant.

Other public facilities? ☐ ☐ ☒ ☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Because the project does not include housing and would result in a minimal increase in employees, and therefore possibly permanent residents, in an area, no other public facilities would be impacted. Impacts would be less than significant.

16. RECREATION

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☒	☐

Absolutely should be labeled Potentially Significant. Please see note above under Parks.

General Discussion

See Response 15(a). The project does not include housing and therefore would not directly cause an increase in population that would increase the use of parks or other recreational facilities. The development of small-scale renewable energy systems and temporary MET facilities would not result in an increase in permanent residents that would indirectly impact parks or recreational facilities. Utility-scale renewable energy systems may require small numbers of employees, who may relocate to the area with their families. This slight increase of employees or residents in the area is not expected to substantially increase the use of existing parks or other recreational facilities.

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?	☐	☐	☐	☒

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance does not include the construction or expansion of parks or other recreational facilities; therefore, no impact would occur.

c) Would the project interfere with regional open space connectivity?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed ordinance would allow renewable energy systems and temporary MET towers in various zones subject to standards and limitations. With the exception of structure-mounted, small-scale solar systems for buildings such as visitor centers or restrooms, these facilities are not allowed within areas zoned for open space. However, it should be noted that wind energy systems, as allowed under the proposed ordinance, require open space to harness high wind resource potential. Therefore, they are generally located near ridgelines or hillside areas, or in open areas. This potential impact will be further addressed in the PEIR.

17. TRANSPORTATION/TRAFFIC

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Small-scale renewable energy systems and temporary MET towers are expected to result in less than 1 average daily traffic (ADT) for a typical project. Utility-scale renewable energy facilities may result in a significant increase in traffic during construction. While associated traffic is not expected to conflict with an applicable plan, ordinance, or policy

measuring the effectiveness of the County's circulation system, the PEIR will address this potential conflict in further detail.

b) Conflict with an applicable congestion management program (CMP), including, but not limited to, level of service standards and travel demand measures, or other standards established by the CMP for designated roads or highways?	☒	☐	☐	☐

General Discussion

The County's Metropolitan Transportation Authority administers the County's CMP. The CMP is a tool used to link land use decisions with their impact to the regional transportation system. For the purposes of the CMP, 160 intersections in the County have been identified for monitoring along with 81 key freeway segments. Furthermore, 133 bus routes and Metro Rail and Metrolink corridors are also monitored by the CMP.

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County. Therefore, facilities developed pursuant to the proposed ordinance may be located near an intersection or road segment monitored by the CMP. Small-scale renewable energy systems and temporary MET towers are expected to result in less than 1 ADT for a typical project and would not result in conflicts with the CMP. Utility-scale renewable energy facilities may result in significant increases in traffic during construction. While construction-associated traffic is not expected to conflict with the CMP, the PEIR will address this potential conflict in further detail.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The main compatibility concerns related to the protection of airport traffic patterns are related to airspace obstructions (e.g., building height, antennas) and hazards to flight (e.g., wildlife attractants, distracting lighting, or glare). The project area consists of the entire unincorporated County; therefore, projects may be located within an Airport Influence Area or within 2 miles of a public airport. The proposed ordinance would allow for the development of wind energy systems that may be located within the safety zone for an airport. The ordinance includes specific measures for aviation safety, such as safety lighting to meet FAA standards for towers over 200 feet, and alternating bands of aviation orange and white paint required for wind towers less than 200 feet. Additionally, the proposed ordinance would prohibit utility-scale renewable energy facilities within the Runway Protection Zone of any airport, and would prohibit such facilities from penetrating the imaginary surfaces defined by the FAA to protect the use of navigable airspace. Because the proposed ordinance includes these specific aviation safety measures and because future projects developed pursuant to the proposed ordinance that may impact air traffic would be routed to the FAA for consultation (refer to Response 9(e)), impacts would be less than significant.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project would not alter traffic patterns or roadway design; place incompatible uses (e.g., farm equipment) on existing roadways; or create or place curves, slopes, or walls that impede adequate sight distance on roads. If necessary, all road improvements would be constructed according to County standards and would require consultation with the County's DPW. Impacts from implementation of the proposed ordinance would be less than significant.

e) Result in inadequate emergency access?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Any facilities developed pursuant to the ordinance that may result in inadequate emergency access—for example, by causing emergency vehicles to detour during construction activities—would require review by the County's Fire Department. Necessary measures to ensure adequate emergency access would be required by the County's Fire Department; therefore, impacts would be less than significant.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The project area consists of the entire unincorporated County; therefore, facilities developed pursuant to the proposed ordinance may be located within a designated Transit Oriented District or along a corridor designated for bicycle infrastructure improvements. However, all projects are required to consult with the DPW, if necessary, and are required to comply with all policies, plans, and programs regarding public transit, bicycle, or pedestrian facilities. Therefore, no impact would occur.

18. UTILITIES AND SERVICE SYSTEMS

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impac t*
a) Exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards?	☐	☐	☒	☐

General Discussion

See Response 10(a). Future projects developed pursuant to the proposed ordinance would be required to comply with all wastewater discharge requirements identified by the applicable basin plan as well as additional wastewater discharge requirements adopted by Los Angeles County. Therefore, such projects would not violate any water quality or WDRs as the projects would be required to comply with these standards and those of the NPDES in order to obtain construction permits. Impacts would be less than significant.

b) Create water or wastewater system capacity problems, or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒

General Discussion

See Response 10(a) and (b). Facilities developed pursuant to the proposed ordinance would not require construction of a water or wastewater treatment facility. Utility-scale renewable energy systems may require an OWTS, which would result in no impact because any wastewater generated by the facility would not be routed through a municipal wastewater treatment system.

c) Create drainage system capacity problems, or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

General Discussion

See Response 10(f).

d) Have sufficient reliable water supplies available to serve the project demands from existing entitlements and resources, considering existing and projected water demands from other land uses?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Temporary MET towers and small-scale renewable energy systems are not expected to use water for any purpose, including irrigation, domestic, or commercial demands. Utility-scale renewable energy facilities may use water for cleaning of the equipment on the site, such as wind energy system rotor blades or solar panels. The purpose of cleaning is to eliminate dust and insect buildup, which could otherwise degrade performance. Also, as indicated in the proposed ordinance, future project sites shall be watered during construction activities such as grading in order to control fugitive dust. Potential water supply impacts as a result of implementation of the proposed ordinance will be addressed in the PEIR.

e) Create energy utility (electricity, natural gas, propane) system capacity problems, or result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☐	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. These facilities, particularly utility-scale renewable energy systems, may require transmission infrastructure upgrades and/or expansions to infrastructure that could cause significant environmental effects. These potential impacts will be addressed in the PEIR.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐

General Discussion

The project proposes an ordinance amending County Code Title 22 to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. Small-scale renewable energy systems and temporary MET towers would not generate solid waste. Utility-scale renewable energy systems may generate minimal solid waste during operation and maintenance activities. The amount would not place a burden on the existing permitted capacity of any landfill within the County; therefore, impacts would be less than significant.

g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

General Discussion

See Response 18(f). The Los Angeles County Integrated Waste Management Plan, which is compiled by the interagency Integrated Waste Management Task Force and updated annually, has identified landfills with sufficient disposal capacity for the next 15 years, assuming current growth and development patterns remain the same. In addition to the projections of the Integrated Waste Management Plan, all projects must comply with other documents required by the California Integrated Waste Management Act of 1989 (AB 939). The proposed ordinance would comply with federal, state, and local statutes and regulations related to solid waste; therefore, impacts would be less than significant.

19. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐

General Discussion

Pursuant to the instructions for evaluating environmental impacts in this Initial Study, the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory was considered in the response to each question in Sections 4 and 5 of this form. As discussed in the responses in Sections 4 and 5, the project may impact biological and cultural resources, respectively. A PEIR is being prepared to analyze the potential impacts to both biological and cultural resources. Should significant impacts be identified, mitigation measures will be provided.

b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☒	☐	☐	☐

General Discussion

As indicated in this Initial Study, the proposed ordinance would help facilitate the development of renewable energy within the County and assist the County to meet the long-term goals of AB 32 and the CCAP. However, the development of projects pursuant to the proposed ordinance may potentially impact long-term goals, including but not limited to, the preservation of biological resources, scenic resources, and cultural resources. This issue will be further addressed in the PEIR. .

c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☒	☐	☐	☐

General Discussion

Pursuant to the instructions for evaluating environmental impacts in this Initial Study, the potential for adverse cumulative effects was considered in the response to each question in Sections 1 through 18 of this form. The cumulative effect of the proposed ordinance will be analyzed in the PEIR. Preliminarily, cumulative impacts from aesthetics, agriculture and forest, air quality, biological resources, cultural resources, hazards and hazardous materials, noise, and utilities and service systems may result. Cumulative impacts will be discussed in the Cumulative Impacts section of the PEIR.

d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

General Discussion

In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings was considered in the response to certain questions in Sections 1, Aesthetics; 3, Air Quality; 7, Geology and Soils; 9, Hazards and Hazardous Materials; 10, Hydrology and Water Quality; 13, Noise; 14, Population and Housing; and 17, Transportation and Traffic. Potential impacts to human beings will be evaluated in the PEIR.

The Antelope Valley IBA:

Los Angeles County's *Globally Important Bird Area*

California's Globally Important Bird Areas Need Special Consideration

Worldwide, a coalition of organizations has identified over 8,000 IBAs or Important Bird Areas. The purpose of the IBA Program is to set "science-based" priorities for habitat conservation to "promote positive action to safeguard vital bird habitats." According to the Audubon's IBA website, "IBA inventories provide a scientifically defensible method for prioritizing conservation activities and allocating limited conservation dollars to ensure the maximum benefit to birds."

IBAs are discussed in current DRECP documents. Not referenced however is the subset of these 8,000 sites has been given the higher status of "Globally Important Bird Areas." These 424 worldwide sites have special status due to "global conservation concern."

One of these 424 areas is in Los Angeles County, in the Western Antelope Valley. This site, **the *Antelope Valley Important Bird Area*** *provides breeding, foraging and nesting habitat for Swainson's Hawk, Golden and Bald Eagles, Northern Harriers, Burrowing Owls, Le Conte's Thrasher, Tricolored Blackbirds and other sensitive species* including the California Condor.

Tragically, with no safeguards in place, the Antelope Valley IBA is being overrun by alternative energy development pushed by corporations rushing to plant their giant footprint on this land ahead of the implementation of regulation that would likely impede their projects.

The Antelope Valley IBA, rimmed by the Angeles Forest, the Tehachapi Mountains and year-round wetlands along the San Andreas Fault, is already home to AV Solar Ranch I, projected to be one of the largest solar plants in the world. A number of other projects, both large and small are also in various stages of completion

Fortunately, due to the diligence of local citizens, there are areas of this Globally Important Bird Area where birds are already protected: the world famous **Antelope Valley California Poppy Reserve State Park, nearby Ripley Desert Woodland State Park** and three other areas protected by both LA County and private conservancies.

To avoid the unintended consequence of further hastening species decline caused by alternative energy development, policies must be in place to protect the avian life of areas already set aside for protection due to their importance as *globally significant habitat.* In this quest, we respectfully suggest the following be included in the DRECP process:

California IBAs that are among the group of 424 sites worldwide that have been elevated to “globally” important status should have special attention when designating areas as “do not develop” or “high conflict” in regard to alternative energy development

These sites should be evaluated to **identify existing protected habitat** within the IBA boundaries. Land adjacent to these protected areas should then be designated as “do not develop” to take full advantage of existing protected spaces to provide connectivity, protection of migration routes and large areas of contiguous habitat for nesting, breeding and foraging for sensitive species.

In this manner, land in high biological value areas such as the Antelope Valley Globally Important Bird Area that is adjacent to existing protected habitat will be given the special status that it should have.

With these protections in place alternative energy development can then be directed away from these areas and avoid the unintended consequence of speeding the decline of sensitive species in the quest to reduce fossil fuel emissions.

More information about Globally Important Bird Areas can be found at

http://web4.audubon.org/bird/iba/

Solar

Federal Lab Offers Grim Look at Solar Harm to Wildlife (http://www.kcet.org/news/rewire/solar/federal-report-details-solar-harm-to-wildlife.html)

by **Chris Clarke**
on April 8, 2014 1:20 PM

Yellow-rumped warbler with solar flux damage to feathers | Photo: National Fish and Wildlife Forensics Laboratory

A report just made public by the U.S. Fish and Wildlife Service documents a disturbing amount of bird injuries at three large California desert solar power plants, and says that there are no easy fixes to the issue.

The report, compiled by the USFWS's National Fish and Wildlife Forensics Laboratory, describes the results of examinations of 233 carcasses of birds found at the Ivanpah Solar Electric Generating System (ISEGS) south of Las Vegas, the Desert Sunlight facility near Joshua Tree National Park, and the Genesis Solar project west of Blythe in Riverside County.

Like

The **occasionally gruesome report** indicates that injuries from concentrated solar flux and from impact with mirrors or photovoltaic panels constitute the two largest solar facility threats to wild birds, and suggests that the limited scope of carcass surveys at solar projects may be obscuring the true magnitude of bird mortalities they cause.

Story Continues Below

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ISEGS is a 392-megawatt concentrating solar power tower facility operated by NRG Energy for partners BrightSource Energy and Google. NextEra Energy Resources owns both the Genesis Solar project, a 250-megawatt parabolic trough concentrating solar project, and Desert Sunlight, a 550-megawatt photovoltaic project being built by First Solar. The report thus examines one of each of the main technology types used in large desert solar projects.

Of the bird carcasses studied, significantly more than half came from one project: 141 out of the 233 carcasses examined by the National Fish and Wildlife Forensics Laboratory team came from ISEGS. Two thirds of the remainder, or 61, came from Desert Sunlight, with 31 provided by the operators of the Genesis Solar project.

Those proportions may or may not represent each project's relative risk to wildlife: the majority of the carcasses provided were "incidental" finds, discovered as workers were performing other tasks. And it's worth noting that the number of birds examined from Genesis Solar totaled less than **half the number of carcasses project owner NextEra told the CEC it found on the site in August 2013**.

But taking the numbers at face value, the report's authors conclude that Desert Sunlight may pose the greatest risk of the three projects to water birds, and that ISEGS, the only project of the three to use solar power tower technology, constitutes a unique threat to wildlife due to the highly concentrated solar energy -- "solar flux" -- around its boilers.

A third cause of death among the birds studied, predation by other animals, likely results from birds having been injured or stranded at the facilities by solar flux, impact trauma, or other injuries, where opportunistic meat-eaters such as ravens, coyotes, or desert kit foxes then take advantage of the easy prey.

The black bands on this peregrine falcon's feathers absorbed more energy from the solar flux, and were thus more badly damaged. | Photo: National Fish and Wildlife Forensics Laboratory

The ISEGS solar flux portion of the National Fish and Wildlife Forensics Lab report is notably striking, even distressing. 47 of the 141 bird carcasses provided the lab by ISEGS showed clear signs of solar flux injury, with feather damage ranging from singeing to charring, and a few instances of skin burns.

Also distressing, though for different reasons: the authors mention that ISEGS' owners have failed to provide them with information on the project's solar flux operating temperatures "despite repeated requests," forcing them to compile data from other sources.

One bird not examined by the lab, but which the authors cite as evidence that current carcass search strategies may be woefully inadequate, was a bird of prey that flew through the zone of solar flux at ISEGS during an October inspection by USFWS :

> *Forensic Lab staff observed a falcon or falcon-like bird with a plume of smoke arising from the tail as it passed through the flux field. Immediately after encountering the flux, the bird exhibited a controlled loss of stability and altitude but was able to cross the perimeter fence before landing. The bird could not be further located following a brief search... As demonstrated by the falcon, injured birds (particularly larger birds), may be ambulatory enough to glide or walk over the property line indicating a need to include adjacent land in carcass searches.*

Damage to feathers that impedes flight generally means the bird in question can't feed, escape predators, or regulate its body temperature, say the authors.

One other description of the scene at ISEGS during that October visit is especially chilling, and confirms **ReWire's speculation** that ISEGS may function as a huge "ecological trap" endangering an entiire food chain:

> *OLE [USFWS Office of Law Enforcement staff] observed large numbers of insect carcasses throughout*

> *the Ivanpah site during their visit. In some places there were hundreds upon hundreds of butterflies (including monarchs, Danaus plexippus) and dragonfly carcasses. Some showed singeing, and many appeared to have just fallen from the sky. Careful observation with binoculars showed the insects were active in the bright area around the boiler at the top of the tower. It was deduced that the solar flux creates such a bright light that it is brighter than the surrounding daylight. Insects were attracted to the light and could be seen actively flying the height of the tower. Birds were also observed feeding on the insects. At times birds flew into the solar flux and ignited.*

The authors suggest that ISEGS and other proposed power tower facilities may have a "significant impact on monarch populations in the desert southwest."

The report also offers a bit of grisly jargon used by ISEGS workers to describe the effect of the solar flux on wildlife that flies into it:

> *Ivanpah employees and OLE staff noticed that close to the periphery of the tower and within the reflected solar field area, streams of smoke rise when an object crosses the solar flux fields aimed at the tower. Ivanpah employees used the term "streamers" to characterize this occurrence.*
>
> *When OLE staff visited the Ivanpah Solar plant, we observed many streamer events. It is claimed that these events represent the combustion of loose debris, or insects. Although some of the events are likely that, there were instances in which the amount of smoke produced by the ignition could only be explained by a larger flammable biomass such as a bird. Indeed OLE staff observed birds entering the solar flux and igniting, consequently becoming a streamer.*
>
> *OLE staff observed an average of one streamer event every two minutes.*

The authors recommend a number of measures at the different facilities to lessen mortalities, including netting off evaporation ponds at Desert Sunlight to discourage water birds from landing there. Also suggested: clearing all vegetation inside the fenceline at Ivanpah to reduce the attractiveness of the site to predators, who might be attracted to the presence of disabled birds and themselves fall prey to solar flux injures or other harms.

The report may well have ramifications beyond the three power plants examined: the California Energy Commission will soon be considering whether to proceed with the Palen Solar Electric Generating System, a much larger version of Ivanpah proposed for the Chuckwalla Valley in Riverside County. That project's backers have agreed to provide avian mortality data from Ivanpah to use as a way to assess Palen's likely damage to wildlife, a main concern of the CEC's when it proposed to deny the project late last year.

Solar

Water Birds Turning Up Dead at Solar Projects in the Desert (http://www.kcet.org/news/rewire/solar/water-birds-turning-up-dead-at-solar-projects-in-desert.html)

by **Chris Clarke**
on July 17, 2013 4:30 PM

A bufflehead, a duck generally found in open water, discovered between two rows of mirrors 25 miles from the nearest open water at the Genesis solar project | Photo: Genesis Solar

[**This story has been updated**.] Big desert solar installations have a problem: They seem to be imperiling water birds. A ReWire investigation has revealed that since mid-March, two large industrial solar power plants in California's remote, arid desert may have killed or injured more than 20 birds commonly associated with lakes or wetlands rather than the open desert surrounding the projects.

Story Continues Below

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The two facilities in Riverside County are the 550-megawatt Desert Sunlight Solar Farm being built near Eagle Mountain by First Solar for owners NextEra Energy Resources, GE Energy Financial Services, and Sumitomo Corporation of America, and the 250-megawatt Genesis Solar Energy Project being built by NextEra about 25 miles west of Blythe. According to compliance documents builders of the two projects have filed with the California Energy Commission (CEC), as well as personal communication with solar developer press representatives, water birds accounted for about half of at least 37 reported incidents of bird injury or mortality at the two projects.

The water birds killed and injured range in species from **yellow-headed blackbirds,** which tend to congregate in the vegetation that surrounds ponds and streams, to the once-critically endangered brown pelican whose lifestyle involves fishing by diving into open water.

[**UPDATE**: after we went to press, ReWire learned that the toll also includes two individuals of the dramatic wading bird species great blue heron. Details **here**.]

Other water birds found dead or injured by biologists at the two projects include eared, western, and pied-billed grebes, the duck species surf scoter, red breasted merganser and bufflehead, the dramatic-looking black-crowned night heron, double-crested cormorants, American coots, and the federally Endangered Yuma clapper rail (**as we reported last week**).

Other birds reported dead or injured at the two facilities in that time period include warblers, goldfinches, a common raven, and a barn owl.

In addition, representatives from First Solar and NextEra have told ReWire of a few incidents not yet included in compliance reports, including deaths of three juvenile brown pelicans and a black-crowned night heron at Desert Sunlight, and another brown pelican found July 10 at the Genesis project.

Most of the mortalities were discovered by project biologists or other staff, and consisted of finding carcasses in varying stages of decay. At least one bird, the red-breasted merganser found in April at Desert Sunlight, was alive when discovered but died shortly after. In addition to the birds listed as injured or killed, the compliance records note a number of birds finding their way into fenced and netted areas or discovered in some distress on the sites, but released apparently no worse for wear.

Construction projects of any nature pose threats to birds, both during construction and after. That's evidenced by the fact that residential and commercial buildings, communications towers, and other human artifacts take

an astounding toll of bird injuries and mortalities. **According to the American Bird Conservancy,** as many as a billion birds die each year due to collisions with glass windows, another 200 million or so from collisions with power lines and communications towers, and about 380 million from collisions with vehicles or other roadway hazards.

So facilities like Desert Sunlight and Genesis that incorporate power lines, thought to account for at least some of the small bird deaths recorded, and roadways that bring construction traffic into areas where there hadn't been much traffic before, are likely to see consequent bird mortality.

And both companies have assured ReWire that the incidents distress them, and that they're working with appropriate agencies to minimize the deaths. A statement sent along by Desert Sunlight spokesperson Ashley Hudgens confirming the deaths of the juvenile pelicans and night heron, for instance, stresses the company's efforts:

> *In recent weeks biologists at Desert Sunlight Solar Farm found three juvenile Brown Pelicans and a Black-crowned Night-heron. Biologists alerted the Bureau of Land Management, the California Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service. Desert Sunlight is cooperating with the agencies and will work with them on next steps.*
>
> *Unfortunately it is common for birds, especially juveniles, to become exhausted or die if they stray outside of their migratory path. Biologists are examining regional flyways and migratory patterns for more information.*
>
> *Project biologists also recover injured or exhausted birds so they can be safely released or transported to rehabilitation centers.*
>
> *Desert Sunlight takes the health of native and protected wildlife and plant species very seriously. Biologists are on site daily to ensure that wildlife and plants are protected during the construction process.*

NextEra's Steve Stengel expressed similar concerns in an email.

No one wants to kill birds unnecessarily, and the companies' efforts to mitigate and reduce the toll are laudable. But what explains the astonishing percentage of water birds injured at these hyper-arid sites?

Scientists haven't weighed in on what might account for a disproportionate number of bird kills at solar facilities: the topic is very new. But as ReWire mentioned in covering the Yuma clapper rail mortality on July 10, it seems very likely that reflections from solar facilities' infrastructure, including photovoltaic panels and mirrors, may well be attracting birds in flight across the open desert, who mistake the broad reflective surfaces for water.

Here's a 2008 photo of the Nevada Solar One project to illustrate what we mean:

Nevada Solar One glare | Photo: **e pants**/Flickr/**Creative Commons License**

With millions of years of evolutionary experience telling birds that broad expanses of glare and reflectivity on the ground mean "water," it's not hard to figure out why water birds might veer miles out of their way to head for solar facilities. Both photovoltaic solar panels, as used at Desert Sunlight, and mirrors like Genesis uses pose that reflective glare attractant.

It may be that photovoltaic arrays resemble lakes more closely than do mirrors, at least to the eyes of birds. Light reflecting off non-metallic surfaces tends to become polarized. Both water and the semiconducting surfaces of photovoltaic panels are non-metallic, which means the glare from one might well resemble the glare from the other if birds are sensitive to light polarization, which **many are.**

The California desert is part of the **Pacific Flyway,** one of four major bird migration corridors in North America. Historically, lakes in arid and semi-arid parts of the west were important rest and refueling stops for long-distance migrants. In the last two centuries human activity has altered, displaced, or dried up many of the lakes and wetlands migrating birds once depended on as they traveled the Pacific Flyway, and remaining rest stops such as the Salton Sea, the Great Salt Lake, or even smaller sites like the artificial Lake Tamarisk in the western Chuckwalla Valley of Riverside County are crucial, widely separated oases in the desert section of the Flyway.

Add reflective areas that resemble water to the mix, and you have a recipe for avian deaths by the hundreds as unsuspecting, tired migrating birds try to come in for a water landing on fields of solar panels and mirrors.

And with thousands of acres of those solar panels and mirrors due to be added to the migration corridor between the Colorado River and the Coachella Valley as Palen, Blythe, and McCoy solar projects come

online, the issue of water bird deaths promises to become far more pressing than it already is.

ReWire will be tracking this issue as it develops.

Appended below is a list of bird deaths and injuries at Desert Sunlight and Genesis of which ReWire is aware. Water birds are indicated by an asterisk (*). Other solar projects aren't included only because we haven't looked at them yet. Some birds injured since May and June will not have been formally reported. Some injuries and fatalities will not have been recorded by project biologists, as injured birds may leave the scene undetected to expire elsewhere from their wounds.

- Genesis, March 13, lesser goldfinch
- Genesis, March 19, lesser goldfinch
- Genesis, March 28, bufflehead* found between mirrors
- Desert Sunlight, April 3 eared grebe*
- Desert Sunlight, April 15 surf scoter*
- Genesis, April 17, black-throated grey warbler
- Genesis, April 17, house wren
- Genesis, April 17, orange-crowned warbler
- Desert Sunlight, April 18 great-tailed grackle
- Desert Sunlight, Week of April 21 red breasted merganser* found live on site, died in transport prior to release.
- Genesis, April 25, barn owl injured, taken to rehab
- Genesis, May 1, pied-billed grebe* (in evap pond netting)
- Genesis, May 1, eared grebe* injured, to rehab
- Desert Sunlight, May 6 double crested cormorant*
- Desert Sunlight, May 8 Yuma clapper rail*
- Genesis, May 8, Wilson's warbler (poss. line strike)
- Genesis, May 14, yellow-headed blackbird* injured, taken to rehab
- Genesis, May 15, hermit thrush (bulldozer)
- Genesis, May 16, Wilson's warbler
- Genesis, May 16, Townsends warbler
- Genesis, May 16, unidentified bird
- Genesis, May 22, western grebe* injured, taken to rehab
- Genesis, May 22, yellow warbler
- Genesis, May 23, warbler, species unknown
- Genesis, May 24, unidentified sparrow
- Genesis, May 30, American coot*
- Desert Sunlight, June 4 common loon*

- Desert Sunlight, June 5 eared grebe*
- Desert Sunlight, June 5 western grebe*
- Desert Sunlight, June 5 western grebe* live, released after consultation.
- Desert Sunlight, June 6 American coot*
- Desert Sunlight, June 6 double crested cormorant*
- Desert Sunlight, June 9 Common raven
- Genesis, June 10, brown pelican* injured, sent to rehab
- Desert Sunlight, June 19 hummingbird (species not mentioned)
- Genesis, July 10, brown pelican*
- Desert Sunlight, July 10 brown pelican*
- Desert Sunlight, July 11 brown pelican*
- Desert Sunlight, July 13 brown pelican*
- Desert Sunlight, July 15 black-crowned night heron*

Solar | Concentrating Solar

April Was Bad Month for Birds at Ivanpah Solar (http://www.kcet.org/news/rewire/solar/concentrating-solar/april-was-bad-month-for-birds-at-ivanpah-solar.html)

by **Chris Clarke**
on May 26, 2014 12:30 PM

An American kestrel. This tiny raptor is falling prey to solar flux injuries at Ivanpah | Photo: **Nathan Rupert**/Flickr/**Creative Commons License**

The April stats are in for reported bird deaths at the Ivanpah solar power plant in the California desert, and it's bad news: 97 birds were found killed or mortally injured between April 1 and 29 at the nearly 4,000-acre plant in San Bernardino County south of Las Vegas.

That's a record number of reported deaths for the facility, though the increase may be at least partly a statistical artifact: sources tell ReWire that biologists from the U.S. Geological Survey (USGS) w

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throughout April investigating wildlife mortality on the premises, likely leading to more stringent searches for injured wildlife.

But those searches still covered just 20 percent of the facility, meaning that one could reasonably extrapolate that total bird mortalities for April could be five times the official count. And that's not taking into account injured birds that land outside the fence, or are eaten by scavengers before survey crews can find them.

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The Ivanpah Solar Electric Generating System generates electrical power by focusing solar energy on boilers atop three power towers, using tens of thousands of billboard-sized independently targetable mirrors called "heliostats." As ReWire has reported extensively over the past couple years, that concentrated "solar flux" poses a significant risk of injury to wildlife that flies through it, and may possibly *entice* wildlife by attracting clouds of insects with its bright glow.

As a result of mounting concern over the new technology's effects on wildlife, federal and state agencies have been casting a watchful eye on Ivanpah's bright light, hence those USGS boots on the ground resulting in more aggressive monitoring of mortalities.

That stepped-up surveying seems to be reflected in the records of how each bird was found: of the 100 dead or injured birds reported in the facility's Monthly Compliance Report to the California Energy Commission for April, just 14 were "incidental" finds, or birds noticed as plant workers performed other duties. Incidental finds made up a far greater percentage of reported mortalities in previous months.

There's also the fact that after a slow start, with the plant **at least partly offline** for many weeks even after its formal opening, April saw a ramping up of energy production from the plant -- and thus more solar flux to pose a threat to wildlife.

Of the 100 birds reported, two -- an American Kestrel and a white-throated swift, both suffering burn injuries from the pllant's concentrated solar flux -- were sent still alive to a rehab facility, while a third, a Brewer's sparrow seen colliding with one of the plant's mirrored heliostats, apparently recovered and flew off into the desert. The remaining 97 birds were either found dead or died soon after discovery.

We've included a full list of the affected species at the end of this post. Seventeen of the birds killed in April were warblers, 12 of them yellow-rumped warblers. Mortalities also included 18 hummingbirds of at least five different species, one having been too badly decomposed for certain identification. Mourning doves were well represented in the death toll, with 10 mortalities. At least four species of swallow (again, some were

unidentifiable) and four sparrow species are represented on the April mortality list, as were three American kestrels not counting the one sent still-alive to rehab.

Surveyors found partial remains of both an American coot and a bird in the heron and egret family on the site on April 15. Though the remains were too sparse to pinpoint the species of the heron, the presence of water birds on the site indicates that Ivanpah isn't immune from the **fake lake effect** that troubles other desert solar facilities.

Forty-nine of the birds were reported as showing signs of scorching, singeing, or melting of feathers consistent with exposure to the plant's concentrated solar flux. A dozen showed obvious signs that they'd collided with heliostats, some having left visible smudges on the mirrors. The remainder were listed with unknown causes of death.

April's bird mortality is unlikely to be considered welcome news for proponents of the Palen Solar Electric Generating System in eastern Riverside County, the design of which would resemble Ivanpah's but on a considerably larger scale. The California Energy Commission decided Thursday to reopen evidentiary hearings on the project's possible effect on wildlife, among other issues, and the mounting losses of wildlife at Palen's smaller sibling Ivanpah may not bode well for the proposed project.

That reopened evidentiary hearing is set to take place early in July, which means there will be at least one more Monthly Compliance Report on Ivanpah in the CEC's hands by then.

Bird species killed or injured at Ivanpah Solar in April 2014:

- American Kestrel (*Falco sparverius*), 3 mortalities, 1 injury
- Anna's Hummingbird (*Calypte anna*), 2 mortalities
- Barn Swallow (*Hirundo rustica*), 1 mortality
- Black-Throated Sparrow (*Amphispiza bilineata*), 1 mortality
- Brewer's Blackbird (*Euphagus cyanocephalus*), 3 mortalities
- Brewer's Sparrow (*Spizella breweri*), 2 mortalities, 1 injury
- Broad-Tailed Hummingbird (*Selasphorus platycercus*), 1 mortality
- Calliope Hummingbird (*Selasphorus calliope*), 2 mortalities
- Cliff Swallow (*Petrochelidon pyrrhonota*), 1 mortality
- Costa's Hummingbird (*Calypte costae*), 7 mortalities
- Eurasian Collared-Dove St(*reptopelia decaocto*), 1 mortality
- Hermit Warbler (*Dendroica occidentalis*), 1 mortality
- Horned Lark (*Eremophila alpestris*), 4 mortalities
- House Finch (*Carpodacus mexicanus*), 2 mortalities
- Lincoln's Sparrow (*Melospiza lincolnii*), 2 mortalities
- Loggerhead Shrike (*Lanius ludovicianus*), 2 mortalities
- Mourning Dove (*Zenaida macroura*), 10 mortalities
- Nashville Warbler (*Vermivora ruficapilla*), 1 mortality

- Rock Dove (*Columba livia*), 1 mortality
- Rufous Hummingbird (*Selasphorus rufus*), 4 mortalities
- Townsend's Warbler (*Dendroica townsendi*), 1 mortality
- Tree Swallow (*Tachycineta bicolor*), 3 mortalities
- Unknown Ardeidae species Unknown, 1 mortality
- Unknown Hummingbird (*Trochilidae*) species, 2 mortalities
- Unknown Swallow (*Hirundinidae* species), 2 mortalities
- Unknown Swallow (*Tachycineta* species), 1 mortality
- Unknown Warbler, 1 mortality
- Unknown, 9 mortalities
- Violet Green Swallow (*Tachycineta thalassina*), 2 mortalities
- Western Meadowlark (*Sturnella neglecta*), 4 mortalities
- White-Crowned Sparrow (*Zonotrichia leucophrys*), 5 mortalities
- White-Throated Swift (*Aeronautes saxatalis*), 1 mortality, 1 injury
- Wilson's Warbler (*Cardellina pusilla*), 1 mortality
- Yellow-rumped Warbler (*Dendroica coronata*), 12 mortalities