FINAL ENVIRONMENTAL IMPACT REPORT

Los Angeles County Renewable Energy Ordinance

SCH No. 2014051016

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
°F	degrees Fahrenheit
A-1	Light Agricultural
A-2	Heavy Agricultural
A-2-H	Heavy Agriculture Including Hog Ranches
AB	Assembly Bill
AC	alternating current
ADT	average daily traffic
AFY	acre-feet per year
AICUZ	Air Installation Compatible Use Zone
ALUC	Airport Land Use Commission
ALUCP	airport land use compatibility plan
ALUP	Airport Land Use Plan
amsl	above mean sea level
AOA	Agricultural Opportunity Area
AQMD	air quality management district
ARA	Agricultural Resource Area
ASBS	Area of Special Biological Significance
AST	aboveground storage tank
AVAQMD	Antelope Valley Air Quality Management District
BLM	Bureau of Land Management
BMP	best management practices
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Cal/OSHA	California Occupational Safety and Health Administration
CalARP	California Accidental Release Prevention
CalEMA	California Emergency Management Agency
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CCAP	Community Climate Action Plan
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEO OEM	Chief Executive Office – Office of Emergency Management

Acronym/Abbreviation	Definition
CEQA	California Environmental Quality Act
CERCLA	California Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFC	California Fire Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHHSL	California Human Health Screening Level
CMP	Congestion Management Plan
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2E	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSE	Countywide Siting Element
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
dB	decibel
dBA	A-weighted decibel
DC	direct current
DEIR	draft environmental impact report
DOGGR	Division of Oil, Gas, and Geothermal Resources
DPH	Department of Public Health
DPR	Department of Parks and Recreation
DPW	Department of Public Works
DRECP	Desert Renewable Energy Conservation Plan
DTSC	Department of Toxic Substances Control
ECP	eagle conservation plan
ECPG	Eagle Conservation Plan Guidance
EIR	environmental impact report
EMF	electric and magnetic field
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning Community Right-to-Know Act
ERB	Energy Regulatory Board

Acronym/Abbreviation	Definition
ESA	Endangered Species Act
ESCP	erosion and sediment control plan
FAA	Federal Aviation Administration
Fed. Reg.	Federal Register
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FPP	fire protection plan
GHG	greenhouse gas
GWP	global warming potential
HCP	habitat conservation plan
HESIS	Hazard Evaluation System and Information Service
HFC	hydrofluorocarbon
HHMD	Health Hazardous Materials Division
HPO	historic preservation ordinance
HUD	U.S. Department of Housing and Urban Development
Hz	hertz
I-	Interstate
IBC	International Building Code
IFC	International Fire Code
IRWMP	integrated regional water management plan
kW	kilowatt
LACFCD	Los Angeles County Flood Control District
LACoFD	Los Angeles County Fire Department
LACWD	Los Angeles County Waterworks District
LASD	Los Angeles County Sherriff's Department
LCFS	Low Carbon Fuel Standard
LID	Low Impact Development
LOS	level of service
LUST	leaking underground storage tank
LUSTIS	Leaking Underground Storage Tank Information System
MCL	maximum contaminant level
MDAB	Mojave Desert Air Basin
MET	meteorological
Metro	Metropolitan Transportation Authority
mg/m^3	milligrams per cubic meter
MIOA	Military Installations and Operations Area
MLD	Most Likely Descendant

Acronym/Abbreviation	Definition
MM	mitigation measure
MMT	million metric tons
mpg	miles per gallon
mph	miles per hour
MRZ	Mineral Resource Zone
MS4	municipal separate storm sewer system
MT	metric ton
MTBE	methyl tertiary butyl ether
MW	megawatt
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Community Conservation Planning
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHTSA	National Highway Traffic Safety Administration
NO	nitric oxide
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRDC	Natural Resources Defense Council
NRHP	National Register of Historic Places
O_3	ozone
OAERP	Operational Area Emergency Response Plan
O-S	Open Space
OSHA	Occupational Safety and Health Administration
OWTS	on-site wastewater treatment system
P-C	Production-Consumption
PFC	perfluorocarbon
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns in size
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size
ppm	parts per million by volume
PPV	peak particle velocity
PV	photovoltaic
R-1	Single-Family Residence
R-A	Residential Agricultural

Acronym/Abbreviation	Definition
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Act Information System
RHNA	Regional Housing Needs Assessment
RMP	risk management plan
RMS	root mean square
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCP	Sustainable Communities Plan
SCS	Sustainable Communities Strategy
SEA	Significant Ecological Area
SEATAC	Significant Ecological Area Technical Advisory Committee
SERA	Sensitive Environmental Resource Area
SF_6	sulfur hexafluoride
SO_2	sulfur dioxide
SO_4	sulfates
SO_x	sulfur oxides
SPR	Site Plan Review
SR-	State Route
SRA	State Responsibility Area
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCP	traffic control plan
TDS	total dissolved solids
TIA	traffic impact analysis
UBC	Uniform Building Code
USFS	U.S. Forest Service
UST	underground storage tank
VOC	volatile organic compound
W	Watershed
WDR	Waste Discharge Requirement
ZCR	Zoning Conformance Review
$\mu g/m^3$	micrograms per cubic meter

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PREFACE

PURPOSE

This Final Environmental Impact Report (EIR) has been prepared by the County of Los Angeles (County) in accordance with the California Environmental Quality Act (CEQA) as amended (Public Resources Code Section 21000 et seq.) and CEQA Guidelines (California Administrative Code Section 15000 et seq.) for the proposed amendments to Title 22 of the Los Angeles County Code (Zoning Code amendments) project (proposed project).

Before approving a project, CEQA requires the lead agency to prepare and certify a Final EIR. The County has the principal responsibility for approval of the proposed project and is therefore considered the lead agency under CEQA Section 21067. According to CEQA Guidelines, Section 15132, the Final EIR shall consist of:

a. The Draft EIR or a revision of the Draft;

b. Comments and recommendations received on the Draft EIR either verbatim or in summary;

c. A list of persons, organizations, and public agencies commenting on the Draft EIR;

d. The responses of the lead agency to significant environmental points raised in the review and consultation process; and

e. Any other information added by the lead agency.

FORMAT OF THE FINAL EIR

This Final EIR consists of the February 2015 Draft EIR, as revised, and several additional sections:

Preface. This chapter summarizes the contents of the Final EIR and summarizes changes that occurred pertaining to the proposed project subsequent to the release of the Draft EIR.

Chapter 1–Chapter 8. These chapters consist of the Draft EIR as a whole with changes shown in strikeout and underline text.

Chapter 9. This section of the Final EIR provides the mitigation monitoring and reporting program (MMRP) for the proposed project. The MMRP is presented in table format and identifies mitigation measures for the proposed project, the party responsible for implementing the mitigation measures, the timing of implementing the mitigation measures, and the monitoring and reporting procedures for each mitigation measure. The MMRP was released for public review as Chapter 9 of the Draft EIR. The MMRP was finalized as part of this Final EIR and is included as part of this document.

Chapter 10. This chapter addresses written and oral comments on the Draft EIR that were raised during the 45-day public review period. This chapter also summarizes several late letters that were received.

ENVIRONMENTAL REVIEW PROCESS

Notice of Preparation

The County determined that an EIR would be required for the proposed project and issued a Notice of Preparation (NOP) on May 5, 2014, to the State Clearinghouse/Governor's Office of Planning and Research, responsible agencies, and interested parties. The 30-day public review period ran from May 5, 2014, through June 4, 2014. The NOP, the Initial Study, and the public review comments received by the County are included within this EIR as Appendix B and Appendix C.

Pursuant to CEQA Section 21803.9, the County conducted two public scoping meetings during the NOP public scoping period. The first meeting was held on May 20, 2014, in Antelope Valley. The second meeting was held on May 22, 2014, in downtown Los Angeles. The purpose of these meetings was to provide a public forum for information dissemination and dialogue regarding the components of the proposed project, the overall process, and the EIR. The scoping meetings were attended by various members of the public.

Noticing and Availability of the Draft and Final EIR

The Draft EIR was circulated for public review for a period of 45 days, beginning on February 20, 2015, and closing on April 6, 2015. The Final EIR addresses the comments received during the public review period and includes minor changes to the text of the Draft EIR in accordance with comments that necessitated revisions.

At the start of the public review period, a notice of public hearing and availability of the Draft EIR was mailed to approximately 300 stakeholder individuals and organizations as well as emailed to approximately 2,300 addresses. The Notice of Availability of the Draft EIR and the Notice of Public Hearing were published in the Los Angeles Times (full run) on February 16, 2015, Acton Agua Dulce Weekly News and Glendale News-Press on February 18, 2015, and Los Angeles Daily Journal, Antelope Valley Press, La Opinion, and The Signal Newspaper on February 19, 2015. The Draft EIR was posted on the County's website: http://planning.lacounty.gov/energy, and copies were made available at the Department of Regional Planning's main office (320 West Template Street, Room 1354, Los Angeles, California, 90012).

Electronic copies were made available at the field office locations listed at the following link: http://planning.lacounty.gov/locations, as well as at the following County libraries.

1. Acton Agua Dulce Library
   33792 Crown Valley Road
   Acton, California 92510
2. Aguora Hills Library
   29901 Ladyface Court
   Agoura Hills, California 91301
3. Avalon Library
   215 Summer Avenue
   Avalon, California 90704
4. Florence Library
   1610 E Florence Avenue
   Los Angeles, California 90001
5. La Crescenta Library
   2809 Foothill Blvd
   La Crescenta, California 91214
6. Lancaster Regional Library
   601 W Lancaster Blvd
   Lancaster, California 93534
7. Lennox Library
   4359 Lennox Blvd
   Lennox, California 90304
8. Littlerock Library
   35119 80th Street East
   Littlerock, California 93543
9. Rowland Heights Library
   1850 Nogales Street
   Rowland Heights, California 91748
10. South Whittier Library
    14433 Leffingwell Road
    Whittier, California 90604
11. Temple City Library
    5939 Golden West Avenue
    Temple City, California 91780
12. Quartz Hill Library
    42018 N 50th Street West
    Quartz Hill, California 93536
13. Valencia Library
    23743 W Valencia Blvd
    Santa Clarita, California 91355
14. View Park Library
    3854 W 54th Street
    Los Angeles, California 90043

This Final EIR will be presented to the County Board of Supervisors for potential certification as the environmental document for the proposed project. All persons who commented on the Draft EIR will be notified of the availability of the Final EIR, and all agencies who commented on the Draft EIR will be provided with a copy of the Final EIR, pursuant to CEQA Guidelines Section 15088(b). The Final EIR will also be posted on the County's website: http://planning.lacounty.gov/energy.

Pursuant to CEQA Guidelines Section 15091, the County shall make findings for each of the significant effects identified in this EIR and shall support the findings with substantial evidence in the record. After considering the Final EIR in conjunction with making findings under Section 15091, the lead agency may decide whether or how to approve or carry out the project. When a lead agency approves a project that will result in the occurrence of significant effects that are identified in the Final EIR but are not avoided or substantially lessened, the agency is required by

CEQA to state in writing the specific reasons to support its action based on the Final EIR and/or other information in the record. This "statement of overriding considerations" must be supported by substantial evidence in the record and is prepared pursuant to CEQA Guidelines Section 15093.

REVISIONS TO THE DRAFT EIR

The comments received during the public review period for the Draft EIR resulted in several changes to the proposed Zoning Code amendments. The purpose of these changes was to address concerns expressed by commenters during the public review period. Several changes were also made to the proposed Zoning Code amendments to ensure compliance with state law. As such, minor clarifications and modifications have been made to Draft EIR to reflect the changes to the proposed Zoning Code amendments and to reflect comments that were made on the Draft EIR. In addition, minor editorial corrections have been made and sections of the Draft EIR have been revised to reflect updated information, such as the recent approval of the General Plan Update, which occurred subsequent to the release of the Draft EIR. These changes are included as part of the Final EIR, to be presented to County decision makers for certification and project approval.

CEQA Guidelines Section 15088.5 sets forth requirements for why a lead agency must recirculate an EIR. A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR but before certification of the Final EIR. Information includes changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not considered significant unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. As defined in CEQA Guidelines Section 15088.5(a), significant new information requiring recirculation includes the following:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
4. The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The proposed Zoning Code amendments, as revised, are shown in Appendix A of this document. The changes that were made to the proposed Zoning Code amendments do not allow for additional development projects that were not already considered in the analysis contained within the Draft EIR or that are not currently allowable. Additionally, the other editorial corrections and clarifications that have been made in the EIR, such as clarifications associated with the recent General Plan Update approval, did not add new significant impacts or increase the severity of an impact. None of the revisions that have been made to the EIR resulted in new significant impacts; none of the revisions resulted in a substantial increase in the severity of an environmental impact identified in the Draft EIR; and, none of the revisions brought forth a feasible project alternative or mitigation measure that is considerably different from those set forth in the Draft EIR. Furthermore, the revisions do not cause the Draft EIR to be so fundamentally flawed that it precludes meaningful public review. As none of the CEQA criteria for recirculation have been met, recirculation of the EIR is not warranted. As stated in CEQA Guidelines Section 15088.5(b), "recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR."

Following this Preface, the original text of the Draft EIR is included in its entirety. Text that has been removed is shown in strikethrough (i.e., ~~strikethrough~~), and text that has been added as part of the Final EIR is shown as underlined (i.e., <u>underline</u>). Below are descriptions of the changes that occurred throughout many sections of the EIR. These changes are characterized as "global changes." Within each description is further reasoning as to why the change does not trigger recirculation, pursuant to CEQA Guidelines Section 15088.5.

Description of Global Changes

Utility-Scale Structure-Mounted Solar Energy Facilities

The proposed Zoning Code amendments that were appended to the Draft EIR provided that utility-scale structure mounted solar energy facilities would require a discretionary permit (CUP) in the residential R-1 zone. However, the Solar Rights Act requires permit streamlining through a ministerial permitting process for small residential rooftop solar energy facility systems. "Small residential rooftop solar energy system" is defined in pertinent part as a solar energy system that produces no more than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal and is installed on a single-family residence or duplex (Government Code Section 65850.5(j)(3)). This permit streamlining for small residential solar energy projects was aimed at lowering the cost of these installations and thus increasing the accessibility of solar energy systems to homeowners (Assem. Com. on Local Government, Rep. on Assem. Bill No. 2188 (2013-2014 Reg. Sess.)) as amended on August 14, 2014, p.7). This also had the added benefit of assisting the state in reaching its renewable energy and greenhouse gas reduction goals. (*Id.*)

To support these state goals, the County has modified the permit requirements for utility-scale structure-mounted solar energy facilities accordingly. If a utility-scale structure-mounted solar energy facility in the R-1 zone also falls within the definition of a small residential rooftop solar energy system, as defined in Government Code Section 65850.5, then a ministerial permit will be required and not a discretionary one. All other utility-scale structure-mounted solar energy facilities in the R-1 zone would be subject to a discretionary permit. The proposed Zoning Code amendments have been revised so that the County's Department of Regional Planning (Regional Planning) would require a Minor CUP instead of a CUP for these projects. Permitting such facilities through a Minor CUP instead of a CUP furthers the objectives of the proposed project by facilitating the use of renewable energy within the County and encouraging the development of structure-mounted renewable energy projects. The Minor CUP requirements are less intensive than those of the CUP process but would still allow the County to adequately address potential impacts associated with such projects.

Additionally, the proposed Zoning Code amendments that were appended to the Draft EIR indicated that utility-scale structure-mounted solar energy facilities in all zones except R-1 would require a Site Plan Review, which is a ministerial permit that is obtained from Regional Planning. The proposed Zoning Code amendments have been revised so that Regional Planning would not require a Site Plan Review for utility-scale structure-mounted solar energy facilities. These projects would be permitted by right without a ministerial or discretionary permit from Regional Planning (unless a Minor CUP is required in the R-1 zone for projects larger than a "small residential rooftop solar energy system," as described above). Utility-scale structure-mounted solar energy facilities would still require building and electrical permits through County Building and Safety. Permitting such facilities by right furthers the objectives of the proposed project by facilitating the use of renewable energy within the County and encouraging the development of structure-mounted renewable energy projects through a streamlined permit review process.

The Draft EIR analyzed utility-scale structure-mounted solar energy facilities at the project level, because such projects would not be subject to future project-specific discretionary review under CEQA, with some exceptions. Under the changes to the Zoning Code amendments described above, the level of review for these projects in the Final EIR has not changed, as the majority of these projects would remain ministerially allowable. As such, the changes in permitting procedures described above would not allow for additional development projects that were not already considered in the analysis contained within the Draft EIR. Furthermore, the revisions to the permitting procedures in the proposed Zoning Code amendments have not resulted in new significant impacts as identified in the EIR, nor has the severity of an impact increased. None of the CEQA criteria for recirculation have been met, and recirculation of the EIR is not warranted. Minor changes have been made, as shown in strikeout and underline throughout the Final EIR,

to represent the modifications in the permitting procedures for utility-scale structure-mounted solar energy facilities that have been made subsequent to the release of the Draft EIR.

Small-Scale Wind Energy Systems and Temporary MET Towers

The proposed Zoning Code amendments for temporary meteorological (MET) towers and small-scale wind energy systems will now be limited to special provisions for birds and bats. The existing provisions for these wind systems, Part 15 of Title 22 of the Los Angeles County Code (Part 15), will be maintained and stay in tact aside from the birds and bats amendments.

Pursuant to Government Code Section 65893 et seq. a county may not adopt an ordinance that provides for the installation of small wind energy systems with requirements that are more restrictive than provided by state law. However, a county that has adopted an ordinance that provides for the installation of small wind energy systems prior to January 1, 2011 is exempted from compliance with these provisions (Government Code Section 65895(a)).

The proposed Zoning Code amendments that were appended to the Draft EIR repealed and replaced Part 15 with different and new requirements, including special provisions regarding birds and bats. With this new ordinance, provisions had to be consistent with state law small wind energy system requirements under Government Code Section 65893 et seq. However, some of these state small wind energy system requirements were not as protective as what already existed under Part 15. Accordingly, it was determined that keeping the existing Part 15 and simply amending it to add the special bird and bat provisions complied with state law and allowed existing more protective measures to remain in place.

The Draft EIR analyzed small-scale wind energy systems and temporary MET towers at the programmatic level, since these projects would be subject to future project-specific discretionary review under CEQA. Under the changes to the Zoning Code amendments described above, the level of review for these projects in the Final EIR has not changed. Retaining the existing Part 15 provisions and adding bird and bat provisions have not resulted in new significant impacts as identified in the EIR, nor has the severity of an impact increased. None of the CEQA criteria for recirculation have been met, and recirculation of the EIR is not warranted. Minor corrections have been made, as shown in strikeout and underline throughout the Final EIR, to represent the changes that have been made subsequent to the release of the Draft EIR.

General Plan Update Approval

The County is currently in the process of updating its General Plan. The majority of the sections that make up the existing adopted General Plan were adopted in 1980. As such, the County prepared the General Plan Update to comprehensively update the General Plan to establish future growth and land use development patterns for the unincorporated areas of the

County through 2035. Upon adoption, the General Plan Update will replace all elements of the existing adopted General Plan, except for the Housing Element, which was updated and adopted in February 2014.

The County released a public review draft of the General Plan Update in January 2014 (described as the "2014 Draft General Plan Update" in the Draft EIR). This document was used in formulating the existing environmental conditions that are described throughout the Draft EIR for the proposed Zoning Code amendments. In March 2015, subsequent to the release of the Draft EIR for the proposed Zoning Code amendments, the County published another public review draft of the General Plan Update, dated March 2015. The County Board of Supervisors voted to approve the General Plan Update on March 24, 2015. It is anticipated that the General Plan Update will be officially adopted in July 2015. Once the General Plan Update has been officially adopted, it will replace the existing adopted General Plan.

The text of this EIR has been clarified to reflect the release of the 2015 version of the Draft General Plan Update (described as the "2015 Draft General Plan Update" in the Final EIR). The text of this EIR has also been clarified the reflect the fact that the Board of Supervisors voted to approve the General Plan Update but has not yet officially adopted the General Plan Update. No changes occurred in the content of the General Plan Update between the 2014 version and the 2015 version that necessitate changes to the information in this EIR. Furthermore, these minor clarifications have not resulted in new significant impacts as identified in the EIR, nor has the severity of an impact increased. None of the CEQA criteria for recirculation have been met, and recirculation of the EIR is not warranted.

Significant Ecological Areas and Hillside Management Ordinance

The 2015 Draft General Plan Update includes changes to the boundaries of the Significant Ecological Areas. These changes would go into effect upon official adoption of the General Plan Update, anticipated to occur in July 2015. Sections in the EIR that discuss Significant Ecological Areas have been clarified to state that new boundaries are anticipated to go into effect in July 2015.

Similarly, the 2015 Draft General Plan Update also includes revisions to the Hillside Management Ordinance. These proposed revisions were described throughout the Draft EIR where applicable. However, with the recent approval of the 2015 Draft General Plan Update, discussions of the revised Hillside Management Ordinance have been expanded in some areas of the EIR and/or clarified to state that the revised Hillside Management Ordinance is anticipated to go into effect in July 2015.

While the revisions to the Hillside Management Ordinance and to the boundaries of Significant Ecological Areas could potentially effect the siting and design of future wind and solar energy projects developed pursuant to the proposed Zoning Code amendments, these reasonably foreseeable changes in applicable regulations have been encompassed in the environmental analysis of the EIR. Furthermore, the adoption (or failure to adopt) either of these regulatory changes would not affect the environmental conclusions in this document.

Zoning Boundary Update

The County is currently undergoing a process to update the boundaries of its zoning designations. These updates are anticipated to go into effect in July 2015. However, the anticipated changes to these boundaries would be minor when viewed across the County as a whole. Additionally, no new zoning designations would be created which would conflict with the provisions of the proposed Zoning Code amendments. As such, these zoning boundary updates would not affect the environmental conclusions in this document.

Antelope Valley Area Plan Update Approval

As described in the Draft EIR, the Antelope Valley Area Plan Update was approved in November 2014 (prior to the release of the Draft EIR). In June 2015, subsequent to the release of the Final EIR, the County released an updated version of the plan, dated June 2015. The County Board of Supervisors voted to adopt the Antelope Valley Area Plan Update on June 16, 2015, and the associated zone changes and Zoning Code amendments as part of the Antelope Valley Area Plan Update will go into effect in July 2015.

The text of this EIR has been clarified to reflect the release of the 2015 version of the Antelope Valley Area Plan Update (referred to as the "2015 Antelope Valley Area Plan Update" in this Final EIR). Changes have also been made in the EIR stating that it is reasonably foreseeable that the 2015 Antelope Valley Area Plan Update will go into effect by July 2015. These updates and clarifications would not affect the environmental conclusions in this document.

Coastal Islands Planning Area

The unincorporated County is divided into multiple Planning Areas, one of which is the Coastal Islands Planning Area. This planning area consists of the unincorporated portions of Santa Catalina Island and San Clemente Island. Santa Catalina Island is subject to the Santa Catalina Island Specific Plan, which supersedes other land use regulations in the County. The Santa Catalina Island Specific Plan, contained within the County's Zoning Code (see Chapter 22.46, Part 2) is the document that regulates land use on Santa Catalina Island. As such, the proposed Zoning Code amendments would not apply to Santa Catalina Island. Clarifications have been made in the Final EIR stating that the proposed Zoning Code amendments would not apply to

Santa Catalina Island. The proposed Zoning Code amendments would apply to San Clemente Island. This island is owned and operated by the United States Navy. This clarification would not affect the environmental conclusions in this document.

CHAPTER 1
EXECUTIVE SUMMARY

This chapter is a summary of the environmental impact report (EIR) for the proposed County of Los Angeles (County) amendments to Title 22 of the Los Angeles (L.A.) County Code (Zoning Code amendments) project (proposed project), prepared pursuant to the California Environmental Quality Act (CEQA).

1.1 OVERVIEW

As required by CEQA, this EIR (1) assesses the potentially significant direct, indirect, and cumulative environmental effects of the proposed project; (2) identifies potential feasible means of avoiding or substantially lessening significant adverse impacts; and (3) evaluates a range of reasonable alternatives to the proposed project, including the required No Project Alternative. The County is the lead agency for the proposed project evaluated in this EIR, and has the principal responsibility for certifying the EIR and approving the proposed project. Pursuant to the CEQA Guidelines (Cal. Code Regs., Title 14, § 15000 et seq.), this EIR consists of an evaluation of the effects of the entire proposed project. This EIR will be used by the County to evaluate the environmental implications of adopting the proposed project. Prior to approving a proposed project, the County must consider the information contained in the EIR, determine whether the EIR was properly prepared in accordance with CEQA (Pub. Resources Code, § 21000 et seq.) and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the proposed project's significant environmental impacts and alternatives, and adopt a Statement of Overriding Considerations if the proposed project would result in significant impacts that cannot be avoided.

EIR Organization

This EIR has been organized as described below.

Preface. This chapter summarizes the contents of the Final EIR and summarizes changes that occurred pertaining to the proposed project subsequent to the release of the Draft EIR.

Chapter 1: Executive Summary. Summarizes the background and description of the proposed project, the format of this EIR, project alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the proposed project.

Chapter 2: Introduction. Describes the purpose of this EIR, background on the proposed project, the Notice of Preparation (NOP), the use of incorporation by reference, and Final EIR certification.

Chapter 3: Project Description. A detailed description of the proposed project, the objectives of the proposed project, the project area and location, approvals anticipated to be included as part of the proposed project, the necessary environmental clearances for the proposed project, and the intended uses of this EIR.

Chapter 4: Environmental Analysis. Provides, for each environmental parameter analyzed, a description of the thresholds used to determine whether a significant impact would occur; the methodology to identify and evaluate the potential impacts of the proposed project; the existing environmental setting; the potential adverse and beneficial effects of the proposed project; the level of impact significance before mitigation; the mitigation measures for the proposed project; and the level of significance of the adverse impacts of the proposed project after mitigation is incorporated.

Chapter 5: Cumulative Effects. Describes the potential cumulative impacts associated with the proposed project and other existing, approved, and proposed development in the area.

Chapter 6: Alternatives. Describes the impacts of the alternatives to the proposed project, including the No Project Alternative and a Reduced Project Alternative.

Chapter 7: References. A bibliography of the technical reports and other documentation used in the preparation of the EIR. Also lists the people and organizations that were contacted during the preparation of this EIR for the proposed project.

Chapter 8: List of Preparers. Lists the people who prepared this EIR for the proposed project.

Chapter 9: Mitigation Monitoring and Reporting Program. Provides the recommended mitigation measures, including the action required, the timing, the responsible party, the monitoring party, and a completion notification column.

Chapter 10. This chapter addresses written and oral comments on the Draft EIR that were raised during the 45-day public review period. This chapter also summarizes several late letters that were received.

Appendices. The appendices for this document contain the following supporting documents:

A. Proposed Zoning Code Amendments (as revised)

B. Notice of Preparation and Initial Study

C. Notice of Preparation Comment Letters

1.2 PROJECT SYNOPSIS

1.2.1 Project Description

The proposed project would involve an ordinance amending L.A. County Code Title 22 (Zoning Code) to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary meteorological (MET) towers.

The proposed project would provide a set of procedures and standards for review and permitting of solar and wind energy systems and facilities. Generally, the proposed project is intended to accomplish the following:

1. Amend Title 22, Planning and Zoning, Chapter 22.08, Definitions, to add definitions related to renewable energy systems and facilities (e.g., decommissioning, ~~guy wires,~~ small-scale solar energy systems, small-scale wind energy systems, utility-scale ground-mounted renewable energy facilities, utility-scale structure-mounted renewable energy facilities, and temporary MET towers);
2. Amend Title 22, Planning and Zoning, to establish the permitting process for each type of renewable energy system in each zone; and
3. Revise Part 15 of the Zoning Code to create a Renewable Energy section that would establish regulations for:
   a. Small-scale solar ~~renewable~~ energy systems~~;~~ ~~(i.e., small-scale solar and wind energy systems);~~
   b. Utility-scale renewable energy facilities (i.e., utility-scale ground-mounted and structure-mounted renewable energy facilities); and
   ~~c. Temporary MET towers.~~
4. Revise Part 15 of the Zoning Code to add bird and bat protection measures to the existing provisions for small-scale wind energy systems.

The proposed Zoning Code amendments ~~provisions of Part 15~~ do not apply to renewable energy systems and facilities that were ~~approved~~ legally established or permitted prior to the effective date of the Zoning Code. Additionally, the provisions of Part 15 do not apply where preempted by regulation under the jurisdiction of the California Public Utilities Commission or preempted by other applicable law. However, any subsequent modification or alteration to increase the physical size, height, footprint, or change in the type of equipment of previously ~~approved~~ legally established or permitted renewable energy systems or facilities would need to comply with the proposed Zoning Code amendments. Additionally, any modification that would convert a project generating energy primarily for on-site use into a project generating energy primarily for off-site use or a project generating energy primarily for off-site use into

a project generating energy primarily for on-site use would also need to comply with the proposed Zoning Code amendments.

The proposed amendments to the Zoning Code are included as Appendix A.

1.2.2 Project Objectives

The County recognizes that significant efforts are currently underway on both the federal and state levels to increase the production of energy from renewable sources. The purpose of the proposed project is to establish regulations and permit requirements that support and facilitate the responsible development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers in a manner that protects public health, safety, and welfare and minimizes significant environmental impacts. Additionally, the proposed project would facilitate the development of renewable energy facilities in an effort to help meet the current and future federal, state, and local goals for renewable energy production. Specific objectives for the proposed project are as follows:

1. Facilitate the use of renewable energy within the County pursuant to existing and future statewide goals.
2. Assist the County in furthering federal goals under the Energy Policy Act of 2005.
3. Reduce the potential for energy shortages and outages by facilitating local energy supply.
4. Clarify the approval process for the development and operation of solar and wind energy systems and facilities.
5. Minimize the potential for land use conflicts and environmental impacts that may arise through the development of renewable energy systems and facilities.
6. Encourage the development of small-scale and structure-mounted renewable energy facilities through a streamlined and standardized permit review process.
7. Allow temporary MET towers with a Minor Conditional Use Permit (CUP) for the purposes of collecting data to determine appropriate locations for wind energy.

1.2.3 Project Location

Los Angeles County encompasses 88 incorporated cities and the unincorporated areas. The incorporated cities account for approximately 1,500 square miles of the County's total 4,083-square-mile jurisdiction, while unincorporated areas account for approximately 2,656 square miles of the County. The proposed project would apply to the unincorporated areas of the County, which are primarily located in the northern half of the County, with discontinuous pockets situated throughout the southern portion, also known as the "unincorporated urban islands" (project area).

1.2.4 Environmental Setting

For the purposes of this EIR, the project area is divided into three geographical categories: the Antelope Valley, Coastal Islands, and unincorporated urban islands (refer to Figure 3-3, Planning Areas, for a map showing these three areas).

Antelope Valley

The Antelope Valley consists of high desert terrain bounded by the San Gabriel Mountains to the south, portions of Kern County to the north, Ventura County to the west, and San Bernardino County to the east. The Antelope Valley is characterized by relatively flat land, punctuated by occasional buttes. In general, the Antelope Valley floor is bowl-like, with the low point located near the center of the playas or dry lakes to the northeast, and consists primarily of alluvium soils. Generally, the area alluvium is composed of unconsolidated to moderately consolidated, poorly sorted cobble, gravel, sand, silt, and clay. Elevation within the Antelope Valley ranges from 2,300 to 3,500 feet above mean sea level (amsl).

The Antelope Valley is located in a very arid part of California and as such usually receives less than 10 inches of precipitation per year, mostly in the form of rainfall; infrequent snowfall events are also known to occur within the Antelope Valley. Temperatures within the Antelope Valley range from below freezing in the winter to over 100 degrees Fahrenheit in the summer. Winter temperatures are typically above freezing.

Coastal Islands

The County includes two Coastal Islands: San Clemente Island and Santa Catalina Island. These islands are the southernmost of the eight Channel Islands located off the coast of California.

San Clemente Island is located approximately 25 miles south of Santa Catalina Island, 68 nautical miles west of San Diego, and approximately 65 nautical miles south of Long Beach. The island is approximately 21 nautical miles long, 4.5 nautical miles wide, and encompasses approximately 56 square miles. The highest point on the island is 1,965 feet amsl, at Mount Thirst. San Clemente Island has been owned and operated by the United States Navy since 1934 and is inhabited by military personnel.

Santa Catalina Island is located approximately 22 miles south of the Palos Verde Peninsula, 22 miles southwest of the Orange County shoreline, and 21 miles north of San Clemente Island. The majority of Santa Catalina Island, approximately 86%, is within unincorporated County land. The remaining 14% of the island (2.6 square miles) is located within the jurisdiction of the City of Avalon. Catalina Island is 21 miles long and 8 miles wide and encompasses approximately 75 square miles. The highest point on the island is at the top of

Mount Orizaba, which reaches approximately 2,069 feet amsl. The island is characterized by its rugged landscape and a cliffed shoreline. The proposed Zoning Code amendments would not apply to Santa Catalina Island.

Unincorporated Urban Islands

The unincorporated urban islands can be organized into nine Planning Areas as proposed in the County's 2015 Draft General Plan Update: East San Gabriel Valley Planning Area, San Fernando Valley Planning Area, Santa Clarita Valley Planning Area, West San Gabriel Valley Planning Area, Santa Monica Mountains Planning Area, Gateway Planning Area, Metro Planning Area, South Bay Planning Area, and Westside Planning Area (see Figure 3-3).

The baseline for a project is normally the physical condition that exists when the NOP is published. The NOP for the proposed project was published on May 5, 2014. However, the CEQA Guidelines (Cal. Code Regs., Title 14, § 15000 et seq.) and applicable case law recognize that the date for establishing an environmental baseline cannot be rigid. Physical environmental conditions vary over time; thus, the use of environmental baselines that differ from the date of the NOP may be appropriate when conducting the environmental analysis. The environmental setting for significant environmental effects of the proposed project is further explained in the beginning of each section of Chapter 4, Environmental Analysis.

1.3 SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES

Table 1-1 summarizes the results of the environmental analysis completed for the project in Chapter 4. Mitigation measures have been identified to reduce environmental impacts associated with ~~aesthetics,~~ agriculture and forestry, air quality, biological resources~~, cultural resources~~, hazards and hazardous materials, hydrology and water quality, noise, and traffic and circulation and are included in Table 1-1. The mitigation measures would reduce potentially significant impacts, but not below a level of significance. A detailed analysis of significant environmental effects, mitigation measures, and infeasible mitigation measures is discussed in Chapter 4 of this EIR.

1.4 AREAS OF CONTROVERSY

CEQA Guidelines Section 15123(b)(2) requires that an EIR identify areas of controversy, including issues raised by other agencies and the public. Areas of known controversy associated with the proposed project that are relevant to the EIR are as follows:

- Development of renewable energy facilities that could affect scenic vistas, visual resources, agricultural lands, cultural resources, special-status species, wildland fires, and military testing;

- Wind turbine height and its impacts to avian wildlife (bats, birds), low-flying agricultural crop dusting planes, and military testing;
- Low-frequency noise and pure tones associated with wind turbines;
- Adequacy of setbacks; and
- Issues associated with dust control, such as water usage and Valley Fever.

1.5 ISSUES TO BE RESOLVED BY THE DECISION-MAKING BODY

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed project, the major issues to be resolved include decisions by the lead agency as to the following:

1. Whether this EIR adequately describes the environmental impacts of the project
2. Whether the benefits of the project override those environmental impacts that cannot be feasibly avoided or mitigated to a level of insignificance
3. Whether the proposed land use changes are compatible with the character of the existing area
4. Whether the identified goals, policies, or mitigation measures should be adopted or modified
5. Whether there are other mitigation measures that should be applied to the project beside the mitigation measures identified in the EIR
6. Whether there are any alternatives to the project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic project objectives

1.6 PROJECT ALTERNATIVES

1.6.1 No Project Alternative

The No Project Alternative assumes that the existing Zoning Code would remain in effect. The main differences between the No Project Alternative and the proposed project is that the proposed project provides an updated set of definitions, procedures, and standards for review and permitting intended to streamline and standardize the development of small-scale wind and solar energy systems, temporary MET towers, and utility-scale ground-mounted and structure-mounted renewable energy facilities. The proposed project includes allowing ~~a~~ small-scale solar energy systems and utility-scale structure-mounted solar energy facilities to be permitted by right, provided they comply with all the requirements of the proposed Zoning Code amendments, which include complying with the underlying zone of the subject property and any other development regulations. Small-scale wind energy systems, temporary MET towers, utility-scale structure-mounted ~~solar~~ wind energy facilities, and utility-scale ground-mounted

renewable energy facilities would all require further discretionary review and adherence to development standards as specified in the Zoning Code amendments; see Appendix A. It should be noted that under the existing Zoning Code, renewable energy projects (with the exception of small-scale wind energy systems and temporary MET towers) are ~~the term "renewable energy" is~~ not defined. As such, renewable energy projects that would be proposed under the No Project Alternative would undergo permitting procedures akin to energy generation plants (with the exception of small-scale wind energy systems and temporary MET towers, which would be subject to the existing provisions within Part 15 that currently regulate such projects). Because energy generation plants differ in project footprint and often in the types of resources that are most impacted, the existing development standards for renewable energy projects do not directly deal with impact areas specific to renewable energy. Similarly, the existing Part 15 provisions for small-scale wind energy systems do not currently include measures to protect avian and bat species from the effects of such systems, whereas the proposed Zoning Code amendments would add such provisions to the existing regulations for small-scale wind energy systems.

1.6.2 Reduced Small-Scale Solar Energy Systems Alternative

The Reduced Small-Scale Solar Energy Systems Alternative involves two components. As this alternative affects the potential development of small-scale solar energy systems under the proposed project and not the development of utility-scale renewable energy facilities or temporary MET towers, this analysis will focus on only the environmental issue areas for which significant impacts from small-scale solar energy systems were identified for the proposed project. The components of the Reduced Small-Scale Solar Energy Systems Alternative are described as follows:

- Reduced Project Area – Small-scale solar energy systems would not be permitted, either by right or with a discretionary permit, in Open Space (O-S) and Watershed (W) zones.
- Reduced Project Size/Capacity – The size of small-scale solar energy systems would be limited to 500 kilowatts (kW). Anything larger than 500 kW would be considered utility scale and would require a Minor CUP or CUP, depending on whether the system is structure mounted or ground mounted. Comparatively speaking, the proposed project would allow small-scale ground-mounted solar systems of up to 25% maximum lot coverage, or 2.5 acres, whichever is less. The size of a typical 500 kW ground-mounted solar energy system is not expected to exceed approximately 30,000 square feet (or 0.7 acre).

All other components of the Reduced Small-Scale Solar Energy Systems Alternative would remain as in the proposed project.

1.6.3 Reduced Utility-Scale Solar and Wind Energy Facilities Alternative

The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would involve three substantial changes as compared to the proposed project. For each component, this analysis will focus on only the environmental issue areas for which significant impacts from utility-scale structure-mounted solar energy facilities and wind energy facilities were identified for the proposed project.

- Reduced utility-scale structure-mounted solar energy facilities: Under the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative, utility-scale structure-mounted solar energy facilities would require a CUP in all zones with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Utility-scale structure-mounted solar energy facilities would not be permitted in the~~except~~ O-S and W zones~~(where they would not be permitted)~~. For comparison, under the proposed project, utility-scale structure-mounted solar energy facilities would be allowed without discretionary review in all zones except O-S and W (where they would not be permitted) and R-1 (where a Minor CUP is required unless a project meets the definition of a "small residential rooftop solar energy system" as defined in Government Code Section 65850.5(j)(3)). Requiring discretionary review for these types of projects would require more time and costs affiliated with these projects.
- Reduced utility-scale structure-mounted wind energy facilities: Under the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative, utility-scale structure-mounted wind energy facilities would require a CUP in all zones except O-S and W (where they would not be permitted). For comparison, under the proposed project, utility-scale structure-mounted wind energy facilities would be allowed with a Minor CUP in all zones except O-S and W (where they would not be permitted).
- Reduced utility-scale ground-mounted wind and solar energy facilities: Under the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative, a minimum 60-foot setback would be required in agricultural zones and a minimum 30-foot setback would be required for all other zones. For comparison, the proposed project would require a 30-foot setback in agricultural zones and for non-agricultural zones the future facilities would need to adhere to the existing setback.

All other components would remain as specified in the proposed project.

1.6.4 Environmentally Superior Alternative

As compared to the proposed project, the Reduced Small-Scale Solar Energy Systems Alternative and Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would result in reduced environmental impacts as compared to the proposed project, whereas the No Project Alternative

would result in greater environmental impacts as compared to the proposed project. It is expected that under the No Project Alternative, there may generally be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures. However, future renewable energy projects under the No Project Alternative would undergo permitting procedures akin to energy generation plants because under the existing Zoning Code, renewable energy projects (with the exception of small-scale wind energy systems and temporary MET towers) ~~the term "renewable energy" is~~ are not defined. Because energy generation plants differ in project footprint and often in the types of resources that are most impacted, the existing development standards for renewable energy projects do not directly deal with impact areas specific to renewable energy. Similarly, the existing Part 15 provisions for small-scale wind energy systems do not currently include specific measures to protect bird and bat species from the effects of such systems, whereas the proposed Zoning Code amendments would add such provisions to the existing regulations for small-scale ground-mounted wind energy systems. As a result, the No Project Alternative could result in increased impacts due to the lack of standards specific to renewable energy systems and facilities and due to the absence of specific bird and bat protection measures for small-scale wind energy systems. Additionally, the proposed project would prohibit ground-mounted utility-scale renewable energy facilities from being constructed within adopted Significant Ecological Areas, whereas the No Project Alternative would not. While generally fewer renewable energy projects may be implemented under the No Project Alternative, these projects would not be required to implement the standards specific to the industry that are included as part of the proposed project. Therefore, some environmental impacts, such as aesthetics, agriculture and forestry, air quality, biology, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and noise, could potentially be increased as compared to the proposed project. Additionally, the No Project Alternative would not meet the project objectives.

The Reduced Small-Scale Solar Energy Systems Alternative and Reduced Utility-Scale Wind and Solar Energy Facilities Alternative would decrease environmental impacts as compared to the proposed project. However, it should be noted that neither of these alternatives would reduce potentially significant impacts to a level less than significant. The Reduced Utility-Scale Wind and Solar Energy Facilities Alternative would require all future utility-scale renewable energy facilities to obtain a discretionary permit with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Therefore, this alternative would largely eliminate one of the by-right components of the proposed project. The Reduced Small-Scale Solar Energy Systems Alternative would reduce impacts associated with small-scale solar energy systems, but these systems and utility-scale structure-mounted solar energy facilities would still be allowed by right.

The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would result in fewer future renewable energy projects allowed by right, and in turn, more types of renewable energy projects would be required to undergo further discretionary review and implement project-specific mitigation measures as necessary through the CEQA process. The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would not reduce any potentially significant impacts to less than significant as compared to the proposed project, but it would lessen the degree of such impacts. Therefore, the Reduced Utility-Scale Solar and Wind Energy Alternative is the environmentally preferred alternative.

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Aesthetics				
A. Would the project have a substantial adverse effect on a scenic vista?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact AES-1**)	None feasible	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers	Potentially significant (**Impact AES-2**)	None feasible	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact AES-3**)	None feasible	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-AES-1**)	None feasible	Cumulatively significant
B. Would the project be visible from or obstruct views from a regional riding or hiking trail?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact AES-4**)	None feasible	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers	Potentially significant (**Impact AES-5**)	None feasible	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact AES-6**)	None feasible	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-AES-2**)	None feasible	Cumulatively significant
C. Would the project substantially damage scenic resources, including, but not limited to trees,	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact AES-7**)	None feasible	Potentially significant and unavoidable

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
rock outcroppings, and historic buildings within a state scenic highway?	**Program-Level:** Small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact AES-8**)	None feasible	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-AES-3**)	None feasible	Cumulatively significant
D. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact AES-9**)	None feasible	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers	Potentially significant (**Impact AES-10**)	None feasible	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact AES-11**)	None feasible	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-AES-4**)	None feasible	Cumulatively significant
E. Would the project create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact AES-12**)	None feasible	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact AES-13**)	None feasible	Potentially significant and unavoidable

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Cumulative	Cumulatively significant (**Impact CU-AES-5**)	None feasible	Cumulatively significant
Agriculture and Forestry				
A. Would the project 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact AGR-1**)	**MM AGR-1**	Potentially significant and unavoidable
	Cumulative: Utility-scale ground-mounted renewable energy facilities	Cumulatively significant (**Impact CU-AGR-1**)	**MM AGR-1**	Cumulatively significant
B. Would the project conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact AGR-2**)	**MM AGR-1**	Potentially significant and unavoidable
	Cumulative: Utility-scale ground-mounted renewable energy facilities	Cumulatively significant (**Impact CU-AGR-2**)	**MM AGR-1**	Cumulatively significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
C. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220 (g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g))?	**Program- and Project-Level:** Small-scale or utility-scale renewable energy systems or facilities or temporary MET towers	No impact	NA	No impact
	Cumulative	Less than significant	NA	Less than significant
D. Would the project result in the loss of forest land or conversion of forest land to non-forest use?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
E. Would the project 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact AGR-3**)	**MM AGR-1**	Potentially significant and unavoidable

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Cumulative	Cumulatively significant (**Impact CU-AGR-3**)	**MM AGR-1**	Cumulatively significant
Air Quality				
A. Would the project conflict with or obstruct implementation of the applicable air quality plan?	**Program- and Project-Level:** Small-scale or utility-scale renewable energy systems or facilities or temporary MET towers	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
B. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact AQ-1**)	**MM AQ-1** **MM AQ-2**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Cumulatively significant (**Impact CU-AQ-1**)	**MM AQ-1** **MM AQ-2**	Cumulatively significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
C. Would the project result in a cumulatively considerable new 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 threshold emissions which exceed quantitative thresholds for ozone precursors)?	See Cumulative	See Cumulative	See Cumulative	See Cumulative
	Cumulative	Cumulatively significant (**Impact CU-AQ-1**)	None Feasible	Cumulatively significant
D. Would the project expose sensitive receptors to substantial pollutant concentrations?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact AQ-2**)	**MM AQ-1** **MM AQ-2**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Cumulatively significant (**Impact CU-AQ-2**)	**MM AQ-1** **MM AQ-2**	Cumulatively significant
E. Would the project create objectionable odors affecting a substantial number of people?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
Biological Resources				
A. Would the project 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 Game or U.S. Fish and Wildlife Service?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact BIO-1**)	**MM BIO-1** **MM BIO-3**	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Potentially significant (**Impact BIO-2**)	**MM BIO-1**	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact BIO-3**)	**MM BIO-1** **MM BIO-2**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Potentially significant (**Impact BIO-4**)	**MM BIO-1**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-BIO-1**)	**MM BIO-1** **MM BIO-2** **MM BIO-3**	Cumulatively significant
B. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact BIO-1**)	**MM BIO-1** **MM BIO-3**	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Potentially significant (**Impact BIO-2**)	**MM BIO-1**	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact BIO-3**)	**MM BIO-1**	Potentially significant and unavoidable

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Utility-scale structure-mounted wind energy facilities	Potentially significant (**Impact BIO-4**)	**MM BIO-1**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-BIO-1**)	**MM BIO-1** **MM BIO-3**	Cumulatively significant
C. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
D. Would the project 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact BIO-5**)	**MM BIO-1** **MM BIO-3**	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Potentially significant (**Impact BIO-6**)	**MM BIO-1**	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact BIO-7**)	**MM BIO-1** **MM BIO-2**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Potentially significant (**Impact BIO-8**)	**MM BIO-1**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-BIO-2**)	**MM BIO-1** **MM BIO-2** **MM BIO-3**	Cumulatively significant

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Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
E. Would the project 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, Joshua trees, southern California black walnut, etc.)?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact BIO-9**)	**MM BIO-1** **MM BIO-3**	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Potentially significant (**Impact BIO-10**)	**MM BIO-1**	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact BIO-11**)	**MM BIO-1**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Potentially significant (**Impact BIO-12**)	**MM BIO-1**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-BIO-3**)	**MM BIO-1**	Cumulatively significant
F. Would the project 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)?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact BIO-13**)	**MM BIO-1**	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact BIO-14**)	**MM BIO-1** **MM BIO-2**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Potentially significant (**Impact BIO-15**)	**MM BIO-1**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-BIO-4**)	**MM BIO-1** **MM BIO-2**	Cumulatively significant
G. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact BIO-13**)	**MM BIO-1** **MM BIO-3**	Potentially significant and unavoidable

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Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	**Program-Level:** Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact BIO-14**)	**MM BIO-1** **MM BIO-2**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Potentially significant (**Impact BIO-15**)	**MM BIO-1**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-BIO-4**)	**MM BIO-1** **MM BIO-2** **MM BIO-3**	Cumulatively significant
Cultural Resources				
A. Would the project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact CUL-1**)	None feasible	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Potentially significant (**Impact CUL-2**)	None feasible	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact CUL-3**)	None feasible	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Potentially significant (**Impact CUL-4**)	None feasible	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-CUL-1**)	None feasible	Cumulatively significant
B. Would the project cause a substantial adverse change in the significance of an archaeological	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact CUL-5**)	None feasible	Potentially significant and unavoidable

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Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
resource pursuant to CEQA Guidelines Section 15064.5?	**Program-Level:** Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Cumulatively significant (**Impact CU-CUL-2**)	None feasible	Cumulatively significant
C. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact CUL-6**)	None feasible	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Cumulatively significant (**Impact CU-CUL-~~2~~3**)	None feasible	Cumulatively significant
D. Would the project disturb any human remains, including those interred outside of formal cemeteries?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact CUL-7**)	None feasible	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant

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Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Cumulatively significant (**Impact CU-CUL-~~3~~4**)	None feasible	Cumulatively significant
		Geology and Soils		
A. Would the project 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.	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
ii. Strong seismic ground shaking?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant

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Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
iii. Seismic related ground failure, including liquefaction and lateral spreading?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
iv. Landslides?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant

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Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
B. Would the project result in substantial soil erosion or the loss of topsoil?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact GEO-1**)	None feasible	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Potentially significant (**Impact GEO-2**)	None feasible	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact GEO-3**)	None feasible	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Cumulatively significant (**Impact CU-GEO-1**)	None feasible	Cumulatively significant
C. Would the project 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant

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Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
D. Would the project 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
E. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	No impact	NA	No impact
	Program-Level: Small-scale wind energy systems and temporary MET towers	No impact	NA	No impact
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	~~Less than significant~~No impact	NA	~~Less than significant~~No impact
	Cumulative	Less than significant	NA	Less than significant

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Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
F. Would the project 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
Greenhouse Gas Emissions				
A. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities and structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
B. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Analysis provided but no significance determination is made because the County's CCAP is not currently an adopted plan	NA	Analysis provided but no significance determination is made because the County's CCAP is not currently an adopted plan
	Program-Level: Small-scale wind energy systems and temporary MET towers	Analysis provided but no significance determination is made because the County's CCAP is not currently an adopted plan.	NA	Analysis provided but no significance determination is made because the County's CCAP is not currently an adopted plan

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Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Utility-scale ground-mounted renewable energy facilities and structure-mounted wind energy facilities		NA	
	Cumulative	Analysis provided but no significance determination is made because the County's CCAP is not currently an adopted plan.	NA	Analysis provided but no significance determination is made because the County's CCAP is not currently an adopted plan
Hazards and Hazardous Materials				
A. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
B. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant

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Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
C. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
D. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as result, would is create a significant hazard to the public or the environment?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant

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Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact HAZ-1**)	None Feasible	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Cumulatively significant (**Impact CU-HAZ-1**)	NA	Cumulatively 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact HAZ-1**)	None Feasible	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Cumulatively significant (**Impact CU-HAZ-1**)	None Feasible	Cumulatively significant

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Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
G. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
H. Would the project 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact HAZ-2**)	**MM HAZ-1**	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Potentially significant (**Impact HAZ-3**)	**MM HAZ-1**	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact HAZ-4**)	**MM HAZ-1**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Potentially significant (**Impact HAZ-5**)	**MM HAZ-1**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-HAZ-2**)	**MM HAZ-1**	Cumulatively significant
I. Does the proposed use constitute a potentially dangerous fire hazard?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact HAZ-2**)	**MM HAZ-1**	Potentially significant and unavoidable

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Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Program-Level: Small-scale wind energy systems and temporary MET towers	Potentially significant (**Impact HAZ-3**)	**MM HAZ-1**	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact HAZ-4**)	**MM HAZ-1**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Potentially significant (**Impact HAZ-5**)	**MM HAZ-1**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-HAZ-2**)	**MM HAZ-1**	Cumulatively significant
Hydrology and Water Quality				
A. Would the project violate any water quality standards or waste discharge requirements?	**Project-Level:** Small-scale solar energy systems	Less than significant	NA	Less than significant
	Utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
B. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that	**Project-Level:** Small-scale solar energy systems	Potentially significant (**Impact HYD-1**)	**MM HYD-1**	Potentially significant and unavoidable
	Utility-scale structure-mounted solar energy facilities			

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Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
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)?	**Program-Level:** Small-scale wind energy systems and temporary MET towers	Potentially significant (**Impact HYD-2**)	**MM HYD-1**	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact HYD-3**)	**MM HYD-1**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Potentially significant (**Impact HYD-4**)	**MM HYD-1**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-HYD-1**)	**MM HYD-1**	Cumulatively significant
C. Would the project 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?	**Project-Level:** Small-scale solar energy systems	Less than significant	NA	Less than significant
	Utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
D. Would the project substantially alter the existing drainage patter 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	**Project-Level:** Small-scale solar energy systems	Less than significant	NA	Less than significant
	Utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant

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Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
manner which would result in flooding on- or off-site?	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
E. Would the project 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?	**Program-Level and Project-Level Components**	No impact	NA	No impact
	Cumulative	Less than significant	NA	Less than significant
F. Would the project 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?	**Project-Level:** Small-scale solar energy systems	Less than significant	NA	Less than significant
	Utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant

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Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
G. Would the project generate construction or post-construction runoff that would violate applicable stormwater NPDES permits or otherwise significantly affect surface water or groundwater quality?	**Project-Level:** Small-scale solar energy systems	Less than significant	NA	Less than significant
	Utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
H. Would the project 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)?	**Program-Level and Project-Level Components**	No impact	NA	No impact
	Cumulative	No cumulative impact	NA	No cumulative impact
I. Would the project result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
J. Would the project use onsite wastewater treatment systems in areas with known geological limitations (e.g., high	**Project-Level:** Small-scale solar energy systems	No impact	NA	No impact
	Utility-scale structure-mounted solar energy facilities	No impact	NA	No impact

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Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage courses)?	**Program-Level:** Small-scale wind energy systems and temporary MET towers	No impact	NA	No impact
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	No impact	NA	No impact
	Cumulative	Less than significant	NA	Less than significant
K. Would the project otherwise substantially degrade water quality?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
L. Would the project 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?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
M. Would the project place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
N. Would the project 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?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
O. Would the project place structures in areas subject to inundation by seiche, tsunami, or mudflow?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
Land Use and Planning				
A. Would the project physically divide an established community?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
B. Would the project 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?~~?~~	**Program- and Project-Level:** Small-scale or utility-scale renewable energy systems or facilities or temporary MET towers	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
C. Would the project be inconsistent with the County zoning ordinance as applicable to the subject property?	**Program- and Project-Level:** Small-scale or utility-scale renewable energy systems or facilities or temporary MET towers	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
D. Would the project conflict with Hillside Management criteria, Significant Ecological Areas (SEA) conformance criteria, or other applicable land use criteria?	**Program- and Project-Level:** Small-scale or utility-scale renewable energy systems or facilities or temporary MET towers	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
	Mineral Resources			
A. Would the project 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	No impact	NA	No impact
	Cumulative	Less than significant	NA	No cumulative impact
B. Would the project 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	No impact	NA	No impact
	Cumulative	Less than significant	NA	No cumulative impact

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		Noise		
A. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	~~Potentially significant (**Impact NOI-1**)~~Less than significant	~~**MM NOI-2**~~	~~Potentially significant and unavoidable~~ Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant ~~(**Impact NOI-2**)~~(**Impact NOI-1**)	**MM NOI-1** ~~**MM NOI-3**~~	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	~~Potentially significant (**Impact NOI-3**)~~ Less than significant	~~**MM NOI-1** **MM NOI-3**~~	~~Potentially significant and unavoidable~~ Less than significant
	Cumulative	Cumulatively significant (**Impact CU-NOI-1**)	**MM NOI-1**~~**, MM-NOI-2 and MM-NOI-3**~~	Cumulatively significant
B. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant ~~(**Impact NOI-4**)~~ (**Impact NOI-2**)	**MM NOI-1** **MM NOI-3**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Potentially significant ~~(**Impact NOI-5**)~~ (**Impact NOI-3**)	**MM NOI-1** **MM NOI-3**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-NOI-2**)	**MM NOI-1, MM-NOI-2 and MM-NOI-3**	Cumulatively significant
C. Would the project result in a substantial permanent increase in ambient noise levels in the project	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
vicinity above levels existing without the project, including noise from parking areas?	**Program-Level:** Small-scale wind energy systems and temporary MET towers	Potentially significant ~~(**Impact NOI-6**)~~ (**Impact NOI-4**)	**MM NOI-2**	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant ~~(**Impact NOI-7**)~~ (**Impact NOI-5**)	**MM NOI-1** **MM NOI-3**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	~~Potentially significant (**Impact NOI-8**)~~ (**Impact NOI-6**)	**MM NOI-1** **MM NOI-3**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-NOI-3**)	**MM NOI-1, MM-NOI-2 and MM-NOI-3**	Cumulatively significant
D. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Potentially significant ~~(**Impact NOI-9**)~~ (**Impact NOI-7**)	**MM NOI-1** **MM NOI-3**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
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?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
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?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
Population and Housing				
A. Would the project 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)?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
B. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
C. Would the project displace substantial number of people, necessitating the construction of replacement housing elsewhere?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
D. Would the project have a cumulative effect on housing and/or population resources?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
Public Services				
A. Would the project result in substantial adverse physical impacts associated with the				

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
i. Fire protection?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
ii. Police protection?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
iii. Schools?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
iv. Parks?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
v. Libraries?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	No cumulative impact	NA	No cumulative impact
vi. Other public facilities?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Cumulative	No cumulative impact	NA	No cumulative impact
Recreation				
A. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
B. Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
C. Would the project interfere with open space connectivity?	**Program-Level and Project-Level Components**	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
Traffic and Circulation				
A. Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance or 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,	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities:			
	Construction	Potentially significant (**Impact TRF-1**)	**MM TRF-1**	Potentially significant and unavoidable
	Operation	Less than significant	NA	Less than significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
pedestrian and bicycle paths, and mass transit?	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Cumulatively significant (**Impact CU-TRF-1**)	**MM TRF-1**	Cumulatively significant
B. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities:			
	Construction	Potentially significant (**Impact TRF-2**)	**MM TRF-1**	Potentially significant and unavoidable
	Operation	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Cumulatively significant (**Impact CU-TRF-1**)	**MM TRF-1**	Cumulatively significant
C. Would the project 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
D. Would the project substantially increase hazards due to a design feature (e.g., sharp curves, or dangerous intersections) or incompatible uses (e.g., farm equipment)?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
E. Would the project result in inadequate emergency access?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
F. Would the project conflict with adopted policies, plans, or programs regarding public transit,	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
bicycles, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	**Program-Level:** Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
Utilities and Service Systems				
A. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
B. Would the project require 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?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
C. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction or which could cause significant environmental effects?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
D. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Potentially significant (**Impact UTL-1**)	None feasible	Potentially significant and unavoidable
	Program-Level: Small-scale wind energy systems and temporary MET towers	Potentially significant (**Impact UTL-2**)	**MM HYD-1**	Potentially significant and unavoidable
	Utility-scale ground-mounted renewable energy facilities	Potentially significant (**Impact UTL-3**)	**MM HYD-1**	Potentially significant and unavoidable
	Utility-scale structure-mounted wind energy facilities	Potentially significant (**Impact UTL-4**)	**MM HYD-1**	Potentially significant and unavoidable
	Cumulative	Cumulatively significant (**Impact CU-UTL-1**)	**MM HYD-1**	Cumulatively significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
E. Would the project 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	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities	Less than significant	NA	Less than significant
	Utility-scale structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	No cumulative impact
F. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant
	Utility-scale ground-mounted renewable energy facilities and structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant
G. Would the project comply with federal, state, and local statutes and regulations related to solid waste?	**Project-Level:** Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities	Less than significant	NA	Less than significant
	Program-Level: Small-scale wind energy systems and temporary MET towers	Less than significant	NA	Less than significant

Table 1-1
Summary of Project Impacts

Environmental Topic	Level of Analysis: Components	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
	Utility-scale ground-mounted renewable energy facilities and structure-mounted wind energy facilities	Less than significant	NA	Less than significant
	Cumulative	Less than significant	NA	Less than significant

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CHAPTER 2
INTRODUCTION

2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority prior to taking action on those projects. This environmental impact report (EIR) has been prepared to satisfy CEQA, as set forth in California Public Resources Code Section 21000 et seq. and the CEQA Guidelines (Cal. Code Regs., Title 14, §15000 et seq.).The EIR is the public document designed to provide decision makers and the public with an analysis of the environmental effects of the proposed project, to indicate possible ways to reduce or avoid environmental damage and to identify alternatives to the project. The EIR must also disclose significant environmental impacts that cannot be avoided; growth-inducing impacts; effects not found to be significant; and significant cumulative impacts of all past, present, and reasonably foreseeable future projects.

Pursuant to CEQA Section 21067, the *lead agency* means "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment." The County of Los Angeles (County) has the principal responsibility for approval of the proposed project and is therefore the lead agency.

The intent of the EIR is to provide sufficient information on the potential environmental impacts of the proposed project to allow the County to make an informed decision regarding approval of the proposed project. Specific discretionary actions to be reviewed by the County are described in Section 3.4, Intended Uses of the EIR.

The overall purpose of this EIR is to inform the lead agency, responsible agencies, decision makers, and the public of the environmental effects of implementation of the proposed project. This EIR addresses the potential environmental effects of the proposed project, including effects that may be significant and adverse, evaluates a number of alternatives to the proposed project, and identifies mitigation measures to reduce or avoid adverse effects.

2.2 NOTICE OF PREPARATION

The County determined that an EIR would be required for the proposed project and issued a Notice of Preparation (NOP) on May 5, 2014, to the State Clearinghouse, responsible agencies, and interested parties. The 30-day public review period ran from May 5, 2014, through June 4, 2014. The NOP, the Initial Study, and the public review comments received by the County are included with this EIR as Appendix B and Appendix C.

Pursuant to CEQA Section 21803.9, the County conducted two public scoping meetings during the NOP public scoping period. The first meeting was held on May 20, 2014, in Antelope Valley. The second meeting was held on May 22, 2014, in downtown Los Angeles. The purpose of these meetings was to provide a public forum for information dissemination and dialogue regarding the components of the proposed project, the overall process, and the EIR. The scoping meetings were attended by various members of the public.

2.3 SCOPE OF THE EIR

The scope of the EIR was determined based on review of the proposed project by County staff, comments received in response to the NOP, and comments received at the scoping meetings conducted by the County. Pursuant to Sections 15126.2 and 15126.4 of the CEQA Guidelines, the EIR should identify any potentially significant adverse impacts and recommend mitigation that would reduce or eliminate these impacts to a level of insignificance.

The information contained in Chapter 3, Project Description, establishes the basis for analyzing future proposed project-related environmental impacts. It should be noted that further environmental review by the County will be required for programmatic components of the proposed project. Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed. Therefore, the environmental review completed as part of this EIR is prepared with the understanding that although these components would be subject to discretionary review and would be evaluated under CEQA, certain revisions as part of the Zoning Code amendments may directly, indirectly, or cumulatively result in significant impacts. As a result, the analysis is provided at a program level.

Alternatively, the proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones. ~~; and (3) future utility scale structure mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family

Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed. Therefore, the environmental review completed as part of this EIR is prepared at a project-specific level for these components that ~~do not~~would not typically require further CEQA review using the information available from the proposed Zoning Code amendments and knowledge of such systems and facilities that have already been developed in the County or other jurisdictions.

These Zoning Code amendments do not propose or approve any specific small-scale solar energy systems, small-scale wind energy systems, utility-scale solar energy facilities, utility-scale wind energy facilities, or temporary MET towers. In addition, there are other renewable energy technologies, such as biomass, geothermal, hydropower, ocean, and other possible renewable energy technologies, that are outside the scope of this project and are not analyzed in the EIR.

2.3.1 Impacts Considered Less Than Significant

The County determined through the Initial Study and public scoping process that the proposed project would not have the potential to cause significant impacts related to energy consumption.

2.3.2 Potentially Significant Impacts

Based on the review of environmental issues through the Initial Study and public scoping process, the County determined that the following environmental topics should be analyzed:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Mineral Resources

- Noise
- Population and Housing
- Public Services
- Recreation
- Traffic and Circulation
- Utilities and Service Systems

Of the environmental topics analyzed and listed above, the following were determined to be potentially significant:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Traffic and Circulation
- Utilities and Service Systems

2.3.3 Significant and Unavoidable Impacts

All impacts listed under Section 2.3.2 as potentially significant impacts would also be significant and unavoidable because there are no appropriate or feasible mitigation measures that could be identified that would reduce potentially significant impacts to less than significant.

2.5 CERTIFICATION OF FINAL EIR

~~This~~ The Draft EIR ~~is being~~was circulated for public review for a period of 45 days. Interested agencies and members of the public ~~are~~ were invited to provide written comments on the Draft EIR to the address shown below. Upon completion of the 45-day review period, the County ~~will~~ reviewed all written comments received and prepared written responses for each comment. A Final EIR ~~will then be~~has been prepared incorporating all of the comments received, responses to

the comments, and any changes to the Draft EIR that result from the comments received. This Final EIR will ~~then~~ be presented to the ~~County Regional Planning Commission and the~~ County Board of Supervisors at public hearings for potential certification as the environmental document for the proposed project~~ along with public hearings on the proposed project~~. All persons who commented on the Draft EIR will be notified of the availability of the Final EIR.

~~All comments received from agencies and individuals on the Draft EIR will be accepted during the 45-day public review period. All comments on the DEIR should be sent to:~~

~~Jay Lee, AICP~~
~~Regional Planning Assistant II~~
~~Los Angeles County~~
~~Department of Regional Planning~~
~~320 West Temple Street, Room 1354~~
~~Los Angeles, California 90012~~
~~Email: jalee2@planning.lacounty.gov~~

The Draft EIR ~~will~~ was ~~be~~ posted on the County's website: http://planning.lacounty.gov/energy. Copies ~~will be~~were available at the Department of Regional Planning's main office at the address listed above. Electronic copies ~~will be~~were available at the field office locations listed at the following link: http://planning.lacounty.gov/locations, as well as at the following County libraries.

1. Acton Agua Dulce Library
   33792 Crown Valley Road
   Acton, California 92510
2. Aguora Hills Library
   29901 Ladyface Court
   Agoura Hills, California 91301
3. Avalon Library
   215 Summer Avenue
   Avalon, California 90704
4. Florence Library
   1610 E Florence Avenue
   Los Angeles, California 90001
5. La Crescenta Library
   2809 Foothill Blvd
   La Crescenta, California 91214
6. Lancaster Regional Library
   601 W Lancaster Blvd
   Lancaster, California 93534
7. Lennox Library
   4359 Lennox Blvd
   Lennox, California 90304
8. Littlerock Library
   35119 80th Street East
   Littlerock, California 93543
9. Rowland Heights Library
   1850 Nogales Street
   Rowland Heights, California 91748
10. South Whittier Library
    14433 Leffingwell Road
    Whittier, California 90604

11. Temple City Library
    5939 Golden West Avenue
    Temple City, California 91780
12. Quartz Hill Library
    42018 N 50th Street West
    Quartz Hill, California 93536
13. Valencia Library
    23743 W Valencia Blvd
    Santa Clarita, California 91355
14. View Park Library
    3854 W 54th Street
    Los Angeles, California 90043

2.6 MITIGATION MONITORING AND REPORTING PROGRAM

CEQA Section 21081.6 requires that agencies adopt a mitigation monitoring and reporting program for any project for which it has made findings pursuant to CEQA Section 21081. Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR.

The mitigation monitoring and reporting program (see Chapter 9, Mitigation Monitoring and Reporting Program) for the proposed project ~~will be~~has been finalized as part of ~~the~~ this Final EIR and will be completed prior to consideration of the proposed project by the ~~County Regional Planning Commission and~~ County Board of Supervisors.

CHAPTER 3
PROJECT DESCRIPTION

3.1 PROJECT OBJECTIVES

The County of Los Angeles (County) recognizes that significant efforts are currently underway on both the federal and state levels to increase the production of energy from renewable sources. The purpose of the proposed Zoning Code amendments (proposed project) is to establish regulations and permit requirements that support and facilitate the responsible development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary meteorological (MET) towers in a manner that minimizes safety hazards and environmental impacts. Additionally, the proposed project would facilitate the development of renewable energy systems and facilities in an effort to help meet the current and future federal, state, and local goals for renewable energy production. Specific objectives for the proposed project are as follows:

1. Facilitate the use of renewable energy within the County pursuant to existing and future statewide goals.
2. Assist the County in furthering federal goals under the Energy Policy Act of 2005.
3. Reduce the potential for energy shortages and outages by facilitating local energy supply.
4. Clarify the approval process for the development and operation of solar and wind energy systems and facilities.
5. Minimize the potential for land use conflicts and environmental impacts that may arise through the development of renewable energy systems and facilities.
6. Encourage the development of small-scale and structure-mounted renewable energy systems and facilities through a streamlined and standardized permit review process.
7. Allow temporary MET towers with a Minor Conditional Use Permit (CUP) for the purposes of collecting data to determine appropriate locations for wind energy.

3.2 PROJECT LOCATION

3.2.1 Overview

The County encompasses 88 incorporated cities and the unincorporated areas. The incorporated cities account for approximately 1,500 square miles of the County's total 4,083-square-mile jurisdiction, while unincorporated areas account for approximately 2,656 square miles of the County (see Figure 3-1, Regional Location Map). The proposed project would apply to the unincorporated areas of the County, which are primarily located in the northern half of the County, with discontinuous pockets situated throughout the southern portion, also known as the "unincorporated urban islands" (project area). Because the County is a geographically diverse

region with a multitude of geologic, topographic, and human-built features, the project area is divided into three main geographical categories for the purposes of this environmental impact report (EIR): the Antelope Valley, the Coastal Islands, and the unincorporated urban islands (see Figure 3-2, Project Location Map).

The northern portion of the County generally consists of large expanses of contiguous unincorporated land that is sparsely populated and characterized by desert climate and habitats. This area includes portions of the Angeles National Forest, the Los Padres National Forest, and the Mojave Desert. The southern portion of the County is mostly made up of the flat, urbanized expanse of the Los Angeles Basin, a plain that extends from the Pacific coastline to the foothills of the San Gabriel Mountains. The southern section of the County also includes the Santa Monica Mountains and two offshore islands, Santa Catalina Island and San Clemente Island (the Coastal Islands). The proposed Zoning Code amendments would not apply to Santa Catalina Island.

3.2.2 Surrounding Land Uses and Setting

The County is surrounded by a wide variety of land uses. The County is bordered to the west by Ventura County, to the north by Kern County, to the east by San Bernardino County, and to the southeast by Orange County. Neighboring areas of Ventura County generally consist of the Los Padres National Forest, agricultural land, and some urban development concentrated in Simi Valley. Neighboring areas of Kern County and San Bernardino County consist primarily of sparsely developed portions of the Mojave Desert, with the San Gabriel Mountains extending across the southern part of the San Bernardino/Los Angeles County border. Neighboring areas of Orange County are primarily urbanized and generally consist of incorporated cities.

The County encompasses highly urbanized areas, sparsely populated desert regions, a variety of mountain ranges, and coastal resources. From the coastline, the urbanized Los Angeles Basin extends northeast towards the foothills of the San Gabriel Mountains, forming a flat plain that gradually slopes up to the foothill communities, which are generally composed of developed suburban neighborhoods built on the hillsides of the San Gabriel Mountains and other smaller mountain ranges. Although the County contains a variety of mountainous areas, the San Gabriel Mountains are one of its defining features. The mountain range bisects the County, extending in a northwest–southeast fashion across its center and separating the generally urbanized Los Angeles Basin from the Santa Clarita Valley and the Antelope Valley. The south-facing and north-facing foothill areas of the San Gabriel Mountains fall generally within County jurisdiction; however, the majority of the mountainous territory is within the Angeles National Forest under federal jurisdiction. To the northeast of the mountains, the County extends across the Mojave Desert to the Kern County line.

Although the Los Angeles Basin, the San Gabriel Mountains, and the Antelope Valley represent three main geographical areas in the County, the County also contains additional features that

stand as outliers in the general topographical trend. These areas include the Santa Monica Mountains, a coastal mountain range with a naturalized coastline located in the County's southwestern corner, and Santa Clarita, a developed community in the San Gabriel foothills that is separated from both the Los Angeles Basin and the Antelope Valley by a variety of mountains and ridgelines. The County's two offshore islands are Santa Catalina Island and San Clemente Island (the Coastal Islands).

The Antelope Valley, as described above, is a portion of the Mojave Desert and is located on the north side of the San Gabriel Mountains. The Coastal Islands represent unique land features within the County and are situated off the County's coastline. The unincorporated urban islands consist of the remaining land within the County: the Los Angeles Basin, the Santa Monica Mountains area, the Santa Clarita Valley, and the variety of urban/wildland interface communities that are located on the outskirts of these three areas.

3.2.3 Planning Area Context

For the purposes of this EIR, the unincorporated areas of the County are divided into three geographical categories: the Antelope Valley, Coastal Islands, and unincorporated urban islands. Table 3-1, Geographic Areas and Planning Areas, illustrates the relationship between the geographical categories and the Planning Areas identified in the County's ~~2014~~ 2015 Draft General Plan Update.

The unincorporated urban islands are primarily built-out areas. The homes and commercial structures located throughout these generally urbanized areas represent a potential for structure-mounted renewable energy generation. The unincorporated areas of the Antelope Valley contain open space, low-density residential development, and agricultural uses. Rural residences and agricultural operations present the potential for structure-mounted renewable energy generation. Additionally, the low-density residential development, vacant land, and agricultural land represent the potential for ground-mounted renewable energy generation as stand-alone facilities or as accessory structures to existing rural residences or agricultural operations. In comparison to the Antelope Valley and the unincorporated urban islands, the Coastal Islands are limited in the availability of both land and structures for ground-mounted and structure-mounted energy generation. However, small systems could be implemented on structures and on the small areas of ground that may be available.

Antelope Valley

The Antelope Valley consists of high desert terrain bounded by the San Gabriel Mountains to the south, portions of Kern County to the north, Ventura County to the west, and San Bernardino County to the east. The Antelope Valley is characterized by relatively flat land, punctuated by

occasional buttes. In general, the Antelope Valley floor is bowl-like, with the low point located near the center of the playas or dry lakes to the northeast, and consists primarily of alluvium soils. Generally, the area alluvium is composed of unconsolidated to moderately consolidated, poorly sorted cobble, gravel, sand, silt, and clay. Elevation within the Antelope Valley ranges from 2,300 to 3,500 feet above mean sea level (amsl).

The Antelope Valley is located in a very arid part of California and as such usually receives less than 10 inches of precipitation per year, mostly in the form of rainfall; infrequent snowfall events are also known to occur within the Antelope Valley. Temperatures within the Antelope Valley range from below freezing in the winter to over 100 degrees Fahrenheit in the summer. Winter temperatures are typically above freezing.

Coastal Islands

The County's two Coastal Islands, San Clemente Island and Santa Catalina Island, are the southernmost of the eight Channel Islands located off the coast of California.

San Clemente Island is located approximately 25 miles south of Santa Catalina Island, 68 nautical miles west of San Diego, and approximately 65 nautical miles south of Long Beach. The island is approximately 21 nautical miles long and 4.5 nautical miles wide and encompasses approximately 56 square miles. The highest point on the island is 1,965 feet amsl, at Mount Thirst. San Clemente Island has been owned and operated by the United States Navy since 1934 and is inhabited by military personnel.

Santa Catalina Island is located approximately 22 miles south of the Palos Verde Peninsula, 22 miles southwest of the Orange County shoreline, and 21 miles north of San Clemente Island. The majority of Santa Catalina Island, approximately 86%, is within unincorporated County land. The remaining 14% of the island (2.6 square miles) is located within the jurisdiction of the City of Avalon. Catalina Island is 21 miles long and 8 miles wide and encompasses approximately 75 square miles. The highest point on the island is at the top of Mount Orizaba, which reaches approximately 2,069 feet amsl. The island is characterized by its rugged landscape and a cliffed shoreline. <u>The proposed Zoning Code amendments would not apply to Santa Catalina Island.</u>

Unincorporated Urban Islands

The unincorporated urban islands have been organized into nine County-designated Planning Areas under the ~~2014~~ <u>2015</u> Draft General Plan Update: East San Gabriel Valley Planning Area, San Fernando Valley Planning Area, Santa Clarita Valley Planning Area, West San Gabriel Valley Planning Area, Santa Monica Mountains Planning Area, Gateway Planning Area, Metro Planning Area, South Bay Planning Area, and Westside Planning Area (see Figure 3-3, Planning Areas).

The East San Gabriel Valley Planning Area is located south of the Angeles National Forest, north of the Orange County border, and east of Interstate 605 (I-605).This Planning Area is characterized by valleys and rolling dry hills that are mostly developed with industrial, commercial, and suburban residential land uses. Unincorporated areas include the Puente Hills, which contain natural areas that provide recreational opportunities to the region. The San Gabriel River runs along I-605 at the western boundary of the Planning Area.

The San Fernando Valley Planning Area is located to the north of the Santa Monica Mountains Planning Area and Westside Planning Area, to the east of Ventura County, to the south of Santa Clarita Valley and the Angeles National Forest, and to the west of downtown Los Angeles and San Gabriel Valley. This Planning Area contains hillsides and mountain ranges including the Santa Susana Mountains to the northwest, the Simi Hills to the west, the Santa Monica Mountains and Chalk Hills to the south, the Verdugo Mountains to the east, and the San Gabriel Mountains to the northeast. The Los Angeles River flows along the southern portion of this Planning Area. In addition, Tujunga Wash travels along the Verdugo Mountains through the eastern communities of the Planning Area prior to joining the Los Angeles River. The San Fernando Valley Planning Area is largely developed with mature suburban communities and commercial uses.

The Santa Clarita Valley Planning Area is surrounded by the San Gabriel, Santa Susana, and Sierra Pelona mountain ranges and the Angeles National Forest. It encompasses approximately 480 square miles and contains steep hillsides, sensitive environmental areas, and very high fire hazard areas. This Planning Area is one of the fastest growing in the County and is partially developed with primarily residential communities.

The West San Gabriel Valley Planning Area is located to the south of the Angeles National Forest, north of Downtown Los Angeles and the Gateway Planning Area, and west of I-605. The majority of this Planning Area consists of mature suburban communities, some of which extend into the foothills of the San Gabriel Mountains. The San Gabriel River flows along the Planning Area's eastern border and I-605.

The Santa Monica Mountains Planning Area contains the Santa Monica Mountains and the shoreline along the Pacific Coast to the Ventura County border to the north and west. The San Fernando Valley is located to the north and the Westside Planning Area and the City of Los Angeles are located to the east. The Santa Monica Mountains contain many environmentally sensitive lands. This Planning Area provides several recreational opportunities on federal, state, and County parks and beaches, as well as privately held conservancy land.

The Gateway Planning Area is located in the southeast portion of the County. This Planning Area is largely built out, with little vacant land. The majority of land uses in this area consist of industrial uses. The Los Angeles and San Gabriel Rivers flow through this Planning Area.

The Metro Planning Area is located in the approximate center of the highly urbanized portion of the County and includes downtown Los Angeles. This area includes major corporations, businesses, hotels, restaurants, retail stores, and government offices. The Los Angeles River and Compton Creek tributary flow through this Planning Area. All open space areas are contained within parks and recreation areas.

The South Bay Planning Area is located in the southwestern corner of the County and includes the Port of Los Angeles. This Planning Area is located to the north and west of the Gateway Planning Area and Metro Planning Area, south of the Westside Planning Area, and east of the Pacific Ocean. This Planning Area consists of low-level areas of the Los Angeles basin and includes the Palos Verde Peninsula, which includes hills, open spaces, cliffs, rocky shorelines, and residential uses.

The Westside Planning Area encompasses the coastal communities along the Pacific Ocean, as well as the Westside area of the City of Los Angeles and other small cities (Santa Monica, Beverly Hills, and West Hollywood). This Planning Area is diverse, with the western portion encompassing beaches and Marina Del Rey. The eastern portion includes Baldwin Hills and Kenneth Hahn State Park.

Key Renewable Energy Resource Areas

Although many areas of the County have the potential for renewable energy development, the extent of solar and wind resources, as well as the availability of structures for structure-mounted renewable energy generation and land for ground-mounted renewable energy generation, differs between the County's geographical regions. The majority of the unincorporated urban islands are built out, so land available for renewable energy development would primarily consist of rooftops, backyard areas, and pockets of undeveloped hillside. The Antelope Valley contains expanses of largely undeveloped desert land, with climatic resources (solar radiation and wind) suitable for generation of wind and solar power. Small-scale solar and wind systems mounted on rooftops and hillsides may be possible on the Coastal Islands; however, the islands offer minimal rooftop area and minimal land area relative to the County's mainland regions. Furthermore, Santa Catalina Island would not be subject to the proposed Zoning Code amendments.

3.3 PROJECT DESCRIPTION

The proposed project would involve a County-wide ordinance amending County Code Title 22 (Zoning Code) to establish regulations for the development of small-scale renewable energy

systems, utility-scale renewable energy facilities, and temporary MET towers. There are also other renewable energy technologies, such as biomass, geothermal, hydropower, ocean, and other possible renewable energy technologies, that are outside the scope of this project and not analyzed in this EIR.

3.3.1 Background

At both the federal and state levels, steps are being taken to increase renewable energy production. At the federal level, the Energy Policy Act of 2005 requires the U.S. Department of Energy to study and report on existing natural energy resources, in support of renewable energy production (U.S. Code, Title 42, § 15851). At the state level, California's Renewable Portfolio Standard program requires utility providers to procure at least 1% of retail sales per year from eligible renewable sources until 20% of overall retail sales are procured from eligible renewable sources. California Executive Order S-3-05 (2005) identified greenhouse gas emission reduction targets for the state, providing the impetus for a potential expansion of the Renewable Portfolio Standard program to include a goal of 33% renewable energy by 2020. Additionally, in June 2008 the California Air Resources Board issued the draft Climate Change Scoping Plan, which identifies California codifying and achieving a 33% Renewable Portfolio Standard by 2020 as a key component in achieving the greenhouse gas emission reduction targets (CARB 2008). The state has also adopted legislation (Assembly Bill 45, October 11, 2009) to specifically encourage the use of small wind turbines and limit obstacles to their use. The proposed project would help facilitate the development of renewable energy technologies, which in turn could provide renewable energy sources to meet state and federal goals.

In March 2010, the County received a letter from the Governor's Office informing the County of federal incentives for the development of utility-scale renewable energy projects. In addition, the County had begun receiving applications for a variety of utility-scale renewable energy projects. In November 2010, the first utility-scale solar energy project to be located in the unincorporated County, Antelope Valley Solar Ranch One, was approved by the County Board of Supervisors. As the County's Department of Regional Planning (Regional Planning) began work on the Antelope Valley Area Plan Update in 2010, staff received comments from Antelope Valley residents expressing concern regarding utility-scale renewable energy development. In response to this concern, Regional Planning began working with the California Department of Fish and Wildlife to develop a map showing suitable areas for renewable energy development.

On June 18, 2011, Regional Planning hosted a Renewable Energy Meeting to listen to concerns regarding renewable energy development, to allow diverse stakeholders to share their perspective, and to solicit comments on the renewable energy development map. The map was retracted after the meeting due to concerns from all stakeholders. At this time, Regional Planning decided that an ordinance was necessary to address the specific development standards that

stakeholders were concerned about. To increase awareness of the issue and to provide a forum for communication, Regional Planning created a Renewable Energy webpage (http://planning.lacounty.gov/energy/) to post documents and news related to renewable energy development in the unincorporated County.

In November 2011, three focus group sessions, one each for renewable energy developers, residents, and environmental organizations, were hosted by Regional Planning to solicit detailed feedback on renewable energy policies in the Antelope Valley Area Plan Update document and to provide input on the scope for a renewable energy ordinance. Later that year, the renewable energy ordinance project, which had previously been connected with the Antelope Valley Area Plan Update, became a separate project. The County's Ordinance Studies Section began working on the ordinance and solicited input from other County departments on initial drafts.

Throughout 2012, the County met with various stakeholders, including the military, the aerospace industry, private property owners, energy advocates, and environmental organizations, to solicit input on the renewable energy ordinance. In March 2013, an intra-departmental working group with staff from various sections of the County was established to review drafts of the ordinance. In June 2013, the County was awarded a grant from the California Energy Commission to complete the ordinance and related goals and policies and to complete an EIR for the ordinance.

The first public draft of the renewable energy ordinance was released on October 3, 2013, with comments due on November 26, 2013. A community meeting was held to receive input on the draft, and approximately 28 comment letters were received from community members, agencies, companies, and environmental organizations. The ordinance was revised, and a second draft was released on May 1, 2014, with comments due on June 4, 2014. Approximately 29 comment letters were received.

3.3.2 Project Components

The proposed project consists of amendments to the Zoning Code that would provide a set of procedures and standards for review and permitting of solar and wind energy systems and facilities. Generally, the proposed project is intended to accomplish the following:

1. Amend Zoning Code, Chapter 22.08, Definitions, to add definitions related to renewable energy systems and facilities (i.e., decommissioning, ~~guy wires,~~ small-scale solar energy systems, small-scale wind energy systems, utility-scale ground-mounted renewable energy facilities, utility-scale structure-mounted renewable energy facilities, and temporary MET towers);

2. Amend the Zoning Code to establish the permitting process for each type of renewable energy system in each zone; and
3. Revise Part 15 of the Zoning Code to create a Renewable Energy section that would provide regulations for:
   a. Small-scale solar ~~renewable~~ energy systems; ~~(i.e., small-scale solar and wind energy systems);~~
   b. Utility-scale renewable energy facilities (i.e., utility-scale ground-mounted and structure-mounted renewable energy facilities); and
   ~~c. MET towers.~~
4. Revise Part 15 of the Zoning Code to add bird and bat protection measures to the existing provisions for small-scale wind energy systems.

The proposed Zoning Code amendments ~~provisions of Part~~ do not apply to renewable energy systems and facilities that were legally established or permitted~~approved~~ prior to the effective date of this ordinance. Additionally, the provisions of Part 15 do not apply where preempted by regulation under the jurisdiction of the California Public Utilities Commission or preempted by other applicable law. However, any subsequent modification or alteration to increase the physical size, height, footprint, or change in the type of equipment of the previously legally established or permitted~~approved~~ renewable energy system or facility would need to comply with the proposed Zoning Code amendments. Additionally, any modification or alteration that would convert a project generating energy primarily for on-site use into a project generating energy primarily for off-site use or a project generating energy primarily for off-site use into a project generating energy primarily for on-site use would need to comply with the proposed Zoning Code amendments.

The proposed Zoning Code amendments are included as Appendix A. The proposed amendments are further described in the following sections.

3.3.2.1 Standards for Small-Scale Solar Energy Systems

In the proposed amendments, a small-scale solar energy system is defined as a system where solar resources are used to generate energy primarily for on-site use. Such a system may be affixed either to the ground or to a structure other than the system's mechanical support structure, such as a building or carport. Any energy generated that exceeds the on-site energy demand may be used off site.

Small-scale solar energy systems will be required to be constructed in conformance with the California Solar Rights Act (Cal. Civil Code §714 et seq. and as may be amended in the future), California Solar Shade Control Act (California Public Resources Code Sections 25980 et seq. and as may be amended in the future), and any other applicable State or County Code requirements. A small-scale solar energy system shall meet all of the setback requirements of the zone to the

extent that it does not conflict with the California Solar Rights Act, the California Solar Shade Control Act, or any other applicable State or County Code requirements. (However, where a provision of the zone or any supplemental district in which a small-scale solar energy system is located regulates the same matter as Part 15, the provisions of Part 15 would apply.) The combined height of a structure and structure-mounted small-scale solar energy system may exceed the height limit of the zone by no more than 5 feet. The height of a ground-mounted small-scale solar energy system shall not exceed 15 feet and maximum lot coverage shall be 25% of the lot or parcel of land, or 2.5 acres, whichever is less. Other limitations have been established to address potential environmental effects. These design considerations are listed in Table 3-2, Environmental Design Considerations. They have also been incorporated into the Zoning Code language as a part of the proposed project.

Permit Requirements: A small-scale structure-mounted solar energy system that meets all the requirements in the Zoning Code would be permitted by right without a ministerial or discretionary permit from Regional Planning in all zoning designations (see Table 3-3, Renewable Energy Permit Requirements). A small-scale ground-mounted solar energy system project that meets the requirements in the Zoning Code and all other applicable development regulations would be allowed with a Site Plan Review (Zoning Conformance) performed by Regional Planning in all zoning designations except Open Space (O-S) and Watershed (W), where small-scale ground-mounted solar energy systems would require a Minor CUP (see Table 3-3). The Site Plan Review (Zoning Conformance) is a ministerial permit that requires review of a project to ensure it complies with all requirements of the County Zoning Code. A Minor CUP is a discretionary permit. The processing requirements for a Minor CUP would generally include review by the Hearing Officer or Regional Planning Commission in a public hearing process. The Hearing Officer or Regional Planning Commission may impose conditions that are deemed necessary to ensure that the project will be in accordance with the burden of proof and is compatible with the surrounding area (County of Los Angeles 2011). A Minor CUP is subject to California Environmental Quality Act (CEQA) review, while a Site Plan Review (Zoning Conformance) is not. Both small-scale structure-mounted systems and small-scale ground-mounted systems would require building and electrical permits as well as any other applicable permits through the County Department of Public Works (DPW) Building and Safety Division (Building and Safety).

3.3.2.2 Standards for Small-Scale Wind Energy Systems

Permit Requirements: A small-scale wind energy project that meets all the requirements in Zoning Code and all other applicable development regulations would be allowed with a Minor CUP from Regional Planning in all zoning designations except ~~O-S and~~ W zones; commercial zones (Commercial Highway (C-H), Restricted Business (C-1), Neighborhood Commercial (C-2), Unlimited Commercial (C-3), Commercial Manufacturing (C-M),

Commercial Recreation (C-R), and Resort and Recreation (R-R)); and several of the manufacturing zones (Restricted Heavy Manufacturing (M-1.5), Heavy Manufacturing (M-2), and Aircraft - Heavy Industrial (M-2.5)) (see Table 3-3). A Minor CUP is a discretionary permit. The processing requirements for a Minor CUP would generally include review by the Hearing Officer or Regional Planning Commission in a public hearing process. The Hearing Officer or Regional Planning Commission may impose conditions that are deemed necessary to ensure that the project will be in accordance with the burden of proof and is compatible with the surrounding area (County of Los Angeles 2011). A Minor CUP is subject to CEQA review. Additionally, small-scale wind energy systems would require building and electrical permits as well as any other applicable permits through County Building and Safety. Minimum distance and safe clearances for small-scale wind energy systems are presented in Table 3-5, Setback Requirements for Temporary MET Towers and Small-Scale Wind Energy Systems.

3.3.2.3 Standards for Utility-Scale Ground-Mounted Renewable Energy Facilities

A utility-scale ground-mounted renewable energy facility is defined as a facility affixed to the ground where renewable resources are used to generate energy primarily for off-site use. This definition includes all equipment and accessory structures related to the facility, including but not limited to solar collector arrays, wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Certain limitations have been established to address specific potential environmental effects. These environmental design considerations are listed in Table 3-2. They have also been incorporated into the Zoning Code language as a part of the proposed project.

Permit Requirements: A utility-scale ground-mounted renewable energy facility project that meets all the requirements in the Zoning Code and all other applicable development regulations would be permitted with a CUP from Regional Planning in all zoning designations except Light Agricultural (A-1), O-S, W, and any residential zones (Residential Agricultural (R-A), Single-Family Residence (R-1), Two-Family Residence (R-2), Limited Multiple Residence (R-3), Unlimited Residence (R-4), and Residential Planned Development (RPD)) (see Table 3-3). Additionally, utility-scale ground-mounted facilities would be prohibited in County-designated Significant Ecological Areas and in Economic Opportunity Areas designated in the Antelope Valley Area Plan.[1] The processing requirements for a CUP include review by the Hearing Officer

[1] The ~~2014 Draft~~ General Plan Update and the Antelope Valley Area Plan Update include~~s a~~ maps with revised Significant Ecological Area boundaries. These revised boundaries will go into effect upon adoption of the ~~General Plan Update~~plans, with the exception of a number of implementation areas that are pending adoption of applicable community plans to ensure consistency with those plans. ~~and the latest draft boundaries are shown on Figure 4.4-3~~ Figure 4.4-2 in Section 4.4, Biological Resources, in this EIR shows the existing and proposed SEA boundaries. Adoption of the General Plan Update and the Antelope Valley Area Plan Update is anticipated to occur by July 2015.

or Regional Planning Commission through a public hearing process. The Commission or Hearing Officer may impose conditions that are deemed necessary to ensure that the project will be in accordance with the burden of proof and is compatible with the surrounding area (County of Los Angeles 2011). The CUP is subject to CEQA review. Additionally, utility-scale renewable energy facilities would require building and electrical permits through County Building and Safety. Minimum distance and safe clearances for utility-scale wind energy facilities are presented in Table 3-4, Setback Requirements for Utility-Scale Ground-Mounted Wind Energy Facilities.

3.3.2.4 Standards for Utility-Scale Structure-Mounted Solar Energy Facilities

A utility-scale structure-mounted solar energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where solar energy is used to generate power primarily for off-site use. The definition includes all equipment and accessory structures related to the facility, including but not limited to solar collector arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Certain limitations have been established to address specific potential environmental effects. These environmental design considerations are listed in Table 3-2. They have also been incorporated into the Zoning Code language as a part of the proposed project.

Permit Requirements: All utility-scale structure-mounted solar energy facilities that meet the requirements in Zoning Code and all other applicable development regulations would be permitted by right without a ministerial or discretionary permit from Regional Planning ~~with a Site Plan Review~~ in all zoning designations except O-S and W. In ~~or in~~ R-1 zones, utility-scale structure-mounted solar energy facilities would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3), which would be permitted by right. (A "small residential rooftop solar energy system" is defined as a solar energy system mounted to single-family residence or duplex that is no larger than 10 kW alternating current nameplate rating or 30 kW thermal) ~~in which a CUP would be required~~ (see Table 3-3). ~~The processing requirements for a Site Plan Review would generally include submittal of a set of plans to Regional Planning, followed by a review to ensure that the project would comply with all applicable development standards contained in the County's Municipal Code. A Site Plan Review is not subject to CEQA review.~~ Utility-scale structure-mounted solar energy facilities would also require building and electrical permits through County Building and Safety.

3.3.2.5 Standards for Utility-Scale Structure-Mounted Wind Energy Facilities

A utility-scale structure-mounted wind energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building

or carport, where wind energy is used to generate power primarily for off-site use. The definition includes all equipment and accessory structures related to the facility, including but not limited to wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Certain limitations have been established to address specific potential environmental effects. These environmental design considerations are listed in Table 3-2. They have also been incorporated into the Zoning Code language as a part of the proposed project.

Permit Requirements: All utility-scale structure-mounted wind energy facilities that meet all the requirements in the Zoning Code and all other applicable development regulations would be permitted with a Minor CUP in all zoning designations except O-S and W or in R-1 zones in which a CUP would be required (see Table 3-3). The processing requirements for a Minor CUP would generally include review by the Hearing Officer or Regional Planning Commission in a public hearing process. The Hearing Officer or Regional Planning Commission may impose conditions that are deemed necessary to ensure that the project will be in accordance with the burden of proof and is compatible with the surrounding area (County of Los Angeles 2011). A Minor CUP is subject to CEQA review. Additionally, utility-scale structure-mounted wind energy facilities would require building and electrical permits through County Building and Safety.

3.3.2.6 Standards for Temporary MET Towers

A temporary MET tower is a structure consisting of a tower and related wind-measuring devices that is used solely to measure winds preliminary to construction of a wind energy system or facility. These facilities may be allowed as a temporary use provided they comply with the requirements established in the Zoning Code.

Permit Requirements: A temporary MET tower project that meets the requirements in the Zoning Code and all other applicable development regulations would be permitted with a Minor CUP in all zoning designations except ~~O-S and~~ W (see Table 3-3). The processing requirements for a Minor CUP would generally include review by the Hearing Officer or Regional Planning Commission in a public hearing process. The Hearing Officer or Regional Planning Commission may impose conditions that are deemed necessary to ensure that the project will be in accordance with the burden of proof and is compatible with the surrounding area (County of Los Angeles 2011). A Minor CUP is subject to CEQA review. Additionally, temporary MET towers would require building and electrical permits through County Building and Safety. Minimum distance and safe clearances for temporary MET towers are presented in Table 3-5, Setback Requirements for Temporary MET Towers and Small-Scale Wind Energy Systems.

3.3.3 CEQA Assumptions

To determine the potential environmental impacts associated with the development of solar and wind energy technologies, a review was completed of the areas where renewable energy technologies would likely be constructed and the potential ground disturbance required. The following explains the main CEQA assumptions used for purposes of this EIR.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities (Project-Level Components)

Project Area: Small-scale solar energy systems may be developed pursuant to the proposed project in all areas of the unincorporated County over which the County has land use jurisdiction. Small-scale systems may be affixed to the ground or mounted on a structure, such as a building or carport. Utility-scale structure-mounted solar energy facilities may be developed pursuant to the proposed project in all areas of the unincorporated County over which the County has land use jurisdiction, except for the O-S and W zones. Utility-scale structure-mounted solar energy facilities would be affixed to an existing structure and may also include accessory structures such as substations, electrical infrastructure, transmission lines, and operations and maintenance buildings.

Level of CEQA Analysis: Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not be subject to future project-specific discretionary review under CEQA, with some exceptions. As indicated in Table 3-3, small-scale ground-mounted solar energy systems would require a Minor CUP in the O-S and W zones, and utility-scale structure-mounted solar energy facilities would not be allowed in O-S or W zones and would require a Minor CUP in R-1 zones (with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3)). Therefore, the environmental review completed as part of this EIR is prepared at a project-specific level for these components that do not require further CEQA review[2] using the information available from the proposed Zoning Code amendments and knowledge of such systems that have already been developed in the County or other jurisdictions. These Zoning Code amendments do not propose or approve any specific small-scale solar energy systems or utility-scale structure-mounted solar energy facilities. The following discussion provides some of the assumptions used in the EIR analysis to provide project-level analysis.

The proposed Zoning Code amendments would allow small-scale ground-mounted solar energy systems with a maximum height of 15 feet and maximum lot coverage of 25% of the lot or parcel of land, or 2.5 acres, whichever is less, as well as structure-mounted solar energy systems that

[2] Certain solar installations on rooftops of existing buildings or on an existing parking lot under specific conditions as stated in California Public Resources Code Section 21080.35 may be exempt from CEQA.

meet the setback requirements of the zone and that are no more than 5 feet above the height limit of the zone without further project-specific CEQA review. The energy output of a small-scale solar energy system is primarily for on-site use; however, any energy generated by a small-scale solar energy system that exceeds the on-site energy demand may be used off site; see Appendix A.

To determine the ground disturbance that would be required to construct a small-scale solar energy system allowed under the proposed Zoning Code amendments, a review of the various small-scale solar energy systems available on the market was completed. Information was obtained by contacting manufacturers and reviewing specifications available for solar energy systems. Structure-mounted solar energy systems may still result in ground disturbance if they require ancillary uses such as substations, inverters, or transmission lines. Because small-scale solar systems may provide some level of off-site energy use, it is possible that these ancillary structures could be developed.

The size and design of a small-scale solar energy system varies depending on the desired amount of energy production. Typical residential solar energy systems range from 3 to 10 kW. Depending on the solar module, each kilowatt requires roughly 70 square feet of mounting area for a ground-mounted system or 85 square feet of roof space (California Solar Electric Company 2014). Therefore, typical residential systems will range from 210 to 850 square feet, depending on amount of energy needed, efficiencies of the system, type of solar module, and whether the system will be roof or ground mounted (see the California Solar Electric Company website at http://www.californiasolarco.com/faq.html). Small-scale solar energy systems may also be used for commercial, agricultural, or other energy-consuming uses as long as the energy is primarily used on site. Some examples are systems for schools, churches, sports stadiums, and retailers; see Figures 3-4a through 3-4c, Photos of Small-Scale Solar Energy Systems, which illustrate a variety of small-scale solar energy systems, both structure and ground mounted. The size of small-scale structure-mounted solar energy systems would be limited by the size of the existing buildings and structures to which they would be mounted, and small-scale ground-mounted solar energy systems could not exceed 25% lot or parcel coverage, or 2.5 acres, whichever is less.

Regarding utility-scale structure-mounted solar energy facilities, the proposed Zoning Code amendments would allow these facilities without further project-specific CEQA review if they do not exceed the height limit of the zone by more than 5 feet and are designed with a setback from the roof perimeter of 3 feet for residential buildings and 4 feet for non-residential buildings. Furthermore, the proposed Zoning Code amendments would allow accessory structures for the purposes of operating and maintaining these facilities if the accessory structures meet all applicable development standards of the zone. By definition, a utility-scale structure-mounted solar energy facility is a facility affixed to a structure that generates energy primarily for off-site use. The size of utility-scale structure-mounted solar energy facilities would be limited by the size of the existing buildings and structures to which they would be mounted. As previously

indicated, the definition of a utility-scale structure-mounted solar energy facility includes ancillary uses for exporting energy. Examples of ancillary uses include mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. As a result, these facilities would be associated with minimal ground disturbance, if any.

Small-Scale Wind Energy Systems, Utility-Scale Structure-Mounted Wind Energy Facilities, Utility-Scale Ground-Mounted Solar and Wind Energy Facilities, and Temporary MET Towers (Program-Level Components)

Project Area: As described in Section 3.3.2, small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers would be allowed pursuant to the proposed project in all areas of the unincorporated County over which the County has land use jurisdiction, with the exception of ~~O-S and~~ W zones. Additionally, utility-scale structure-mounted wind energy facilities would be prohibited from O-S zones and small-scale wind energy systems would be prohibited from the commercial zones (C-H, C-1, C-2, C-3, C-M, C-R, and R-R), and several of the manufacturing zones (M-1.5, M-2, and M-2.5). Utility-scale ground-mounted solar and wind energy facilities would be allowed pursuant to the proposed project in all areas of the unincorporated County over which the County has land use jurisdiction, with the exception of A-1, O-S, W, and R zones (R-1, R-2, R-3, R-4, and RPD). It should also be noted that utility-scale ground-mounted solar and wind energy facilities would be prohibited in County-designated Significant Ecological Areas and in Economic Opportunity Areas designated in the Antelope Valley Area Plan.

Level of CEQA Analysis: The proposed Zoning Code amendments provide standards for wind energy ~~systems~~facilities~~,~~ and utility-scale ground-mounted solar energy systems~~, and temporary MET towers~~ related to setbacks, height, site disruption, signs, lighting, fencing, aviation safety, access roads, transmission lines, visual impacts, water quality protection, blade clearance, impacts to birds and bats, location requirements, and decommissioning. The existing regulations

for small-scale wind energy systems and temporary MET towers contained in Part 15 would remain in place; however, the proposed Zoning Code amendments would include the addition of specific bird and bat protection measures for small-scale wind energy systems. All future wind energy systems, utility-scale ground-mounted solar energy systems, and temporary MET towers would be subject to project-specific discretionary review under CEQA and would be required to implement measures to minimize significant environmental impacts to the extent feasible. Therefore, the environmental review completed as part of this EIR is prepared with the understanding that although future wind energy projects, utility-scale ground-mounted solar energy projects, and temporary MET tower projects would be subject to discretionary review and would be evaluated under CEQA, certain revisions as part of the Zoning Code amendments may directly, indirectly, or cumulatively result in significant impacts. As a result, the analysis is provided at a program level. These Zoning Code amendments do not propose or approve any wind energy systems or facilities, utility-scale ground-mounted solar energy facilities, or temporary MET towers.

3.3.4 Technical, Economic, and Environmental Characteristics

The following sections provide a general discussion of the proposed project's technical, economic, and environmental characteristics.

Technical Considerations

Wind Turbines

Wind turbines come in various sizes and configurations and are built from a wide variety of materials. Modern wind turbines fall into two basic categories: horizontal axis and vertical axis (see Figure 3-5, Typical Horizontal-Axis and Vertical-Axis Wind Turbine). The most widely used wind turbines today are horizontal axis (see Figure 3-6, Typical Schematic for a Wind Turbine). This is largely because the rotors of vertical-axis wind turbines are located closer to the ground, where wind speeds are lower; therefore, these types of systems often require a larger footprint and greater height to produce as much energy as a horizontal-axis turbine. Refer to Figures 3-7a through 3-7d for photos of typical small and large wind turbines.

Generally, a wind turbine consists of a rotor, tower, and nacelle. The rotor consists of wing-shaped blades, usually three total, attached to a hub that connects to the top of the tower. The wing-shaped blades on the rotor harvest the energy from the wind stream. The rotor converts the kinetic energy in the wind to rotational energy transmitted through the drivetrain to the generator. Electricity generated can be connected directly to the load, which is the power consumed by the circuit, or can be transmitted to the utility grid. The tower, which is made of tubular steel, concrete, or steel lattice, supports the rotor nacelle. The nacelle sits atop the tower

and houses the drivetrain, which consists of a gearbox, low- and high-speed shafts, support bearings, the generator, the controller, and the brake (refer to Figure 3-8, Typical Wind Turbine Design, for further detail).

~~There are two types of wind turbine towers that would allowable under the proposed project, described as follows:~~

Monopole towers are a free-standing design that has a minimal space requirement. These towers are most often used today and would be allowable under the proposed Zoning Code amendments~~.~~.

Guyed towers are made of narrow, steel pipe and supported by guy wires. The tower is installed on a small poured-concrete pad and each of the guy wires is also fastened to a concrete footing. One advantage of these towers is their relatively low cost and easy installation. However, because the guy wires extend out far from the tower itself, they require proportionally more land than free-standing wind turbine towers. The use of guy wires would be prohibited under the proposed project for small-scale wind energy systems, temporary MET towers, and utility-scale wind energy facilities.

~~Monopole towers are a free-standing design that has a minimal space requirement. These towers are most often used today.~~

Lattice towers, which are made of welded steel, would be prohibited. Although these towers provide a medium-cost solution with easy maintenance, they are often perceived as having a greater aesthetic impact and they may contribute to biological impacts by providing potential perching or nesting areas that subject birds to the steel area of the rotor blades.

Solar Energy Systems and Facilities

Solar energy systems and facilities entail the use of solar cells. Incoming solar rays are captured by the solar panels. A direct current (DC) is created by the solar panels and is then sent to an inverter and converted to alternating current (AC) electricity for use on the power grid; see Figure 3-9, Photovoltaic Schematic. The energy level is dependent on whether the photons are absorbed, reflected, or pass right through the photovoltaic (PV) cell. Some of the absorbed photons generate electricity, others generate heat, and some never reach the external circuit. The size of the solar cells determines the amount of current and power it is capable of producing. To generate more than 20 watts of electricity, several solar cells are assembled into modules. The modules can also connect together to make arrays that can potentially supply several megawatts of power. For utility-scale electricity generating applications, hundreds of arrays are interconnected for a single, large system. PV solar panels are the most common type of solar panel and are depicted in Figures 3-4a through 3-4c.

Concentrating solar energy power technologies use mirrors to reflect sunlight onto receivers, which then convert the concentrated solar energy into heat, which is then used to drive a heat engine, typically a steam turbine, that produces electricity. This type of solar energy technology would not be permitted under the proposed Zoning Code amendments.

Economic Considerations

The proposed project would help facilitate the development of a local energy supply, thereby minimizing the economic and social impacts associated with electrical energy production from non-renewable resources. Energy supplied by renewable energy can help keep dollars spent on electricity in local communities, instead of funds being spent to buy power from elsewhere (AWEA 2010). Renewable energy may provide a source of investment for rural residential areas with high quality wind, solar, or other natural resource potential. Small-scale wind energy systems and solar energy systems often provide business owners and homeowners with relief from high energy costs by reducing the cost of utility bills. Furthermore, the cost of solar electricity is approximately $0.10 to $0.15 per kilowatt-hour, as reported by the County's solar mapping tool. This can be compared with Southern California Edison's rates of $0.140 to $0.339 per kilowatt-hour (the lower rate represents the baseline rate, while the higher rate represents the Tier 5 rate) (County of Los Angeles 2014b).

Additionally, distributed small-scale solar and/or wind energy systems collectively decrease overall reliance on power plants that produce electricity using non-renewable energy sources. In recent years, centralized fossil fuel plants have left customers vulnerable to power shortages and sharp price increases, specifically in rural areas. The development of large-scale power plants has become riskier (AWEA 2003), thereby creating the need for more secure and sustainable forms of energy generation sources, such as solar panel projects, wind turbine projects, and other renewable energy projects. Renewable energy facilities can also reduce hidden costs resulting from air pollution and healthcare.

Utility-scale renewable energy projects can benefit the economies of rural communities by providing a steady income through lease or royalty payments to farmers and other landowners (AWEA 2010). As a whole, the renewable energy industry is more labor intensive than fossil fuel technologies, creating more jobs for each unit of electricity generated than from fossil fuels (UCS 2013). The Natural Resources Defense Council (NRDC) conducted an analysis of jobs generated by utility-scale wind energy facilities in a study titled *American Wind Farms: Breaking Down the Benefits from Planning to Production*. In this document, the NRDC analyzes 14 activities that were identified by the National Renewable Energy Laboratory's National Wind Technology Center as contributing to the manufacture, planning, construction, and operation of a typical wind energy facility. The NRDC quantified the number of workers that are expected to be

involved for each of these 14 activities for a typical 250 MW wind energy facility.[3] The total number of jobs created over the lifetime of such a facility (from manufacturing and planning to operation) was determined to be approximately 1,079 jobs. Of these jobs, 522 jobs relate to on-site construction activities (273 workers for on-site civil work, such as roads and foundations; 202 workers for mechanical assembly; and 47 workers for on-site electrical work, such as grid connections). Non-construction jobs for the typical 250 MW wind energy facility were estimated by the NRDC to total 557 jobs (80 workers for preplanning and development, 432 workers for manufacturing, 18 workers for sales and distribution, and 27 workers for ongoing operations and maintenance). As demonstrated by the NRDC study, although many workers are required to establish a utility-scale wind energy facility over the lifetime of the facility, not all of these workers would necessarily be sourced from the County's pool of potential employees. For example, the wind turbines may be manufactured elsewhere. However, construction jobs and ongoing operations and maintenance jobs would occur on the site of the facility.

Environmental Considerations

A goal of the proposed project is to facilitate the use of renewable energy. Renewable energy provides a number of environmental benefits, such as reductions in air pollution, greenhouse gas emissions, water pollution, and water usage, as compared to other sources of energy. However, renewable energy facilities, like other energy technologies, have environmental impacts. To analyze the potential environmental impacts associated with renewable energy systems, information was gathered from the U.S. Department of Energy regarding typical operational activities and conditions of wind and solar energy systems and facilities.

Wind Turbines

Information regarding potential environmental considerations related to wind turbines was collected from seven leading U.S. wind turbine manufacturers and suppliers for small wind turbine models that are eligible for financial incentives by the California Energy Commission. Information was also collected from the U.S. Department of Energy's *Small Wind Electric Systems: A U.S. Consumer's Guide* (DOE 2007). The following discussion summarizes the research findings and their relation to various environmental considerations.

A small wind turbine has a lifespan of 20 to 30 years. Minimal annual maintenance is required and is most commonly provided by the local dealer or installer through a service and maintenance program. However, if the owners have the expertise, they may elect to provide the annual maintenance service themselves. Annual maintenance mainly consists of

[3] The largest utility-scale wind energy facility in California is the Alta Wind Energy Center, located in Kern County, which is an approximately 1,300 MW facility that is still undergoing expansion (CEC 2014). The total installed wind energy generation capacity in California is 5,830 MW (AWEA 2014).

checking electrical connections, making sure that bearings are adequately lubricated, listening for any unusual noise, and inspecting blades with a pair of binoculars for any damage. Bearing lubrication is one of the most important maintenance requirements because this is the only flammable component of most small wind turbines. Many small wind turbines contain fire suppression equipment installed in the nacelle in case of emergencies. As for other potential fire hazards, all components of the system are protected in the body of the turbine, which is usually made of nonflammable aluminum or steel. The blades usually consist of a reinforced fiberglass composite that is nonflammable.

Potential fire risks associated with large wind turbines may stem from improperly installed electrical equipment (e.g., technical defects or components in the power electronics, failure of power switches, failure of control electronics, high electrical resistance caused by insufficient electrical protection, faulty design of equipment, non-pole-mounted disconnection switches, inadequate surge protection, or inadequate grounding due to incorrect design or improper installation). Fire protection and prevention features, such as smoke detectors, arc-flash sensors, and over-current-sensing transducers are included in these turbines. Fire risks are also associated with transformers. Transformers contain cooling oil, which can be ignited by electrical arc. However, transformers use firewalls for protection and often have secondary containment to control any oil that could be released.

Typically, small turbine systems that are connected to the grid do not require transformers. Ground wires are installed by the dealer or installer; technical specifications for installing and wiring systems are found in the manufacturer's product literature. Although no setback requirements are specified by the dealers, installers, or manufacturers, it is common practice to ensure that the rotor blades are at least 20 to 30 feet above any obstacle within 300 feet. This ensures an adequate flow of wind to the turbine. Also, all small wind turbine projects would be required to meet the development parameters, including setbacks, specified in the Zoning Code. These setbacks help to reduce potential environmental impacts, such as biological resources, noise, fire, and land use compatibility.

In compliance with Federal Aviation Administration (FAA) rules (Advisory Circular 70/7460-1K – Obstruction Marking and Lighting), all turbine components, including towers, nacelles, and rotors, are required to be painted or finished using low-reflectivity, neutral white colors if they exceed 200 feet in height (FAA 2007). Exterior lighting on turbines would be limited to FAA aviation warning lights, as necessary. The minimum intensity of light would be used to meet FAA standards. These requirements would help minimize aesthetic and biological impacts.

Solar Energy Systems and Facilities

Information on the environmental considerations of solar power was obtained from U.S. Department of Energy reports on the impacts of utility-scale solar energy facilities and on the installation and maintenance of small-scale solar energy systems.

Small-scale solar energy systems, such as rooftop systems, generally have a lifetime of 20 to 25 years, and utility-scale solar energy facilities have a typical operational life of several decades. Minimal maintenance is required for any size of solar energy system or facility; however, utility-scale facilities generally require more operational activities than small-scale solar energy systems. Potential environmental impacts related to both utility-scale facilities and small-scale systems typically involve the materials used for operation and maintenance, the materials from which the systems are made, and the siting of systems and facilities on large expanses of land or in visible locations on rooftops or hillsides.

A variety of chemicals and materials are required during construction, operation, maintenance, and decommissioning of solar energy systems and facilities. However, chemicals and materials used for operation, such as heat transfer fluids and dielectric fluids, are generally confined to the devices in which they operate. High-performance PV cells often contain toxic metals that are also confined within the cells but have the potential to be released in the event of breakage. Other chemicals used in a variety of solar technologies include thermal energy storage salts and steam amendment chemicals. Chemicals required for maintenance activities at utility-scale solar sites include herbicides and chemical stabilizers used for weed abatement and dust control, respectively. Chemical use in small-scale solar energy systems generally consists of any toxic materials contained within PV cells or heat transfer fluids. Small-scale solar energy systems generally do not require devices with dielectric fluids such as transformers, switches, or capacitors. Small-scale solar energy systems also do not involve substantial weed abatement or dust control activities.

Impacts of utility-scale ground-mounted solar energy facilities on land and resources generally relate to the large expanses of land that are required for the systems. Land used for large ground-mounted solar facilities generally consists of disturbed vacant land, agricultural land, or natural habitat areas. Although smaller ground-mounted solar energy systems can be installed on hillsides, larger systems generally require flat expanses of land. The use of otherwise undeveloped properties or agricultural lands for solar power often generates impacts to biological resources, agricultural resources, cultural resources, visual resources, soil resources, surface water bodies, and drainage patterns. Potential impacts to biological resources can involve reduced diversity, spread of invasive species, direct mortality of wildlife, habitat fragmentation and loss, and increased exposure to human activity. These impacts occur during construction and continue throughout the operation of the facilities. Impacts may continue after decommissioning due to disturbed or lost habitat. Potential impacts to soil resources include unintentional soil

compaction, increased erosion, and soil contamination related to use of herbicides and chemical stabilizers. Potential impacts to visual resources and land use include fragmentation of large blocks of land, creation of industrial landscapes, and glare (DOE 2013b).

Impacts of small-scale solar energy systems (rooftop or ground-mounted) on land and resources generally relate to effects on the visual environment. Operation of small-scale solar energy systems generally involves solar panels that are mounted on existing structures such as buildings, homes, and carports, or panels that are directly mounted on the ground or on a pole. Minor appurtenant devices such as inverters, batteries, and junction boxes are typically required to connect the system to the electrical grid and/or to the building on which the system is installed. Maintenance is minimal and consists of recommended yearly inspections, periodic cleaning in climates with infrequent rainfall, and potential replacement of parts after the first 10 years of operation (DOE 2009). Installation of small-scale rooftop, ground-mounted, or pole-mounted solar energy systems has the potential to alter the visual environment, depending on the type of technology used and the system's location. All small-scale solar energy systems installed under the proposed project would be required to meet development parameters, including setbacks, specified in the Zoning Code amendments, as well as standards referenced in the California Solar Rights Act, in the California Solar Shade Control Act, and in any other applicable State or County Code requirements such as safety and performance standards.

In addition, future solar energy systems and facilities proposed within airports would be required to comply with the FAA's *Technical Guidance for Evaluating Selected Solar Technologies on Airports* (2010).

3.4 INTENDED USES OF THE EIR

This EIR is an informational document that will inform the public agency decision makers and the public generally about the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. An EIR has been prepared because the proposed Zoning Code amendments would allow certain renewable energy technologies (i.e., structure-mounted and ground-mounted small-scale solar energy systems) without a discretionary permit.

This EIR has been prepared in accordance with the requirements of the statutes and guidelines of CEQA (Pub. Resources Code, § 21000 et seq.)and the CEQA Guidelines (Cal. Code Regs., Title 14, § 15000 et seq.). The Notice of Preparation released for public review on April 30, 2014, and the attached Initial Study prepared for the proposed project are included in Appendix B to this EIR. Comment letters received during the Notice of Preparation public review period are included in Appendix C. to this EIR. This EIR addresses issues identified in the Initial Study and comments received regarding the Notice of Preparation.

This EIR was made available for review by members of the public and public agencies for 45 days to provide comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated," as stated in the CEQA Guidelines, Section 15204.

As the designated lead agency, the County is responsible for preparing this document. The decision to approve the proposed project is within the purview of the County Board of Supervisors. When deciding whether to approve the project, the County will use the information included in this EIR to consider potential impacts on the physical environment associated with the project.

The County will consider written comments received on the EIR in making its decision to certify the EIR as complete and in compliance with CEQA, and also whether to approve or deny the project. Environmental considerations and economic and social factors will be weighed to determine the most appropriate course of action. Subsequent to certification of the EIR, agencies with permitting authority over future renewable energy projects may use the EIR as the basis for their evaluation of environmental effects of the project and approval or denial of applicable permits.

3.5 CUMULATIVE PROJECT LIST

The CEQA Guidelines Section 15355 defines cumulative effects as two or more individual effects, which when considered together are considerable or which compound or increase other environmental impacts. The CEQA Guidelines further state that individual effects may be changes resulting from a single project or a number of separate projects, or the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects.

3.5.1 Methodology

The CEQA Guidelines Section 15130 allows for the use of two alternative methods to determine the scope of projects to analyze cumulative impacts.

List Method: A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.

General Plan Projection Method: A summary of projects contained in an adopted general plan or related planning document, or in a prior environmental document, that have been adopted or certified, which describe or evaluate regional or area-wide conditions contributing to the cumulative impact.

The cumulative analysis conducted for this EIR is based on both the list method and the general plan projection method. For projects located within the jurisdiction of the County, the general

plan projection method is used. For projects located outside the control of the County, such as those located in tribal lands or adjacent counties, the list method is used.

3.5.2 Cumulative Projects

Each environmental issue area within this EIR includes a discussion of potential cumulative impacts based on the methods previously described. The cumulative impact analysis is provided in Section 5, Cumulative Effects, of this EIR. For each environmental issue area, the following categories and example projects are described, when applicable. The following list of categories serves as the foundation on which the cumulative analysis approach has been based:

- County of Los Angeles ~~2014~~ 2015 Draft General Plan Update and associated EIR[4]
- Renewable energy projects (see Table 3-6, Approved and Proposed Renewable Energy Projects, for a list of approved solar and wind projects within the unincorporated County)

The assessment of potential cumulative impacts involves consideration of the proposed project in combination with the growth in the region.

3.6 GROWTH-INDUCING IMPACTS

The CEQA Guidelines Section 15126.2(d) requires that an EIR analyze ways in which projects may "foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Section 4.13 of this EIR specifically addresses whether the proposed project would induce substantial population growth in the area. Examples of growth inducing impacts may include the following:

- Extension of utility lines, construction of roads, or construction or expansion of wastewater facilities
- Encouragement of growth in surrounding areas through economic stimulus (e.g., construction of golf courses, shopping centers, industrial facilities, and residential Specific Plans
- Revisions to land use policies, such as General Plan amendments, annexations, and rezones

The proposed project does not propose any residential use, included but not limited to a residential subdivision, mobile home park, or construction for a single-family residence that would cause an increase in population. The proposed project also does not include a recreational component, such as a hotel, resort, campground, or other facility that would attract or

[4] The 2015 Draft General Plan has been approved and is anticipated to become adopted by July 2015.

accommodate an increase in visitors to the area that would indirectly cause temporary increases in population. Section 4.13 of this EIR specifically addresses whether the Proposed Project would induce substantial population growth in the area. Additionally, the proposed project does not propose the extension of utility lines, construction of roads, or construction of expansion of wastewater facilities. The proposed project includes revisions to the County's Zoning Code, but would not amend land use policies that may foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Additionally, as discussed in Section 3.1, Project Objectives, the proposed project consists of amendments to the Zoning Code, which would assist the County in furthering federal goals under the Energy Policy Act of 2005. For all these reasons, the proposed project would not directly induce growth related to provision of additional electric power. For these reasons, the proposed project would not directly or indirectly induce substantial population growth.

Table 3-1
Geographic Areas and Planning Areas

Geographical Category	Planning Area (Current 1980 General Plan)	Planning Area (~~2014~~ 2015 Draft General Plan Update)
Antelope Valley	Antelope Valley Planning Area	Antelope Valley Planning Area
Coastal Islands	Channel Islands Planning Area	Coastal Islands Planning Area
Unincorporated urban islands	East San Gabriel Valley Planning Area San Fernando Valley Planning Area Santa Clarita Valley Planning Area West San Gabriel Valley Planning Area Malibu/Santa Monica Mountains Planning Area West Planning Area Central Planning Area East Central Planning Area Southeast Planning Area South Planning Area Southwest Planning Area Burbank/Glendale Planning Area	East San Gabriel Valley Planning Area San Fernando Valley Planning Area Santa Clarita Valley Planning Area West San Gabriel Valley Planning Area Santa Monica Mountains Planning Area Gateway Planning Area Metro Planning Area South Bay Planning Area Westside Planning Area

Table 3-2
Environmental Design Considerations
(per proposed Zoning Code amendments)

Issue Area	Environmental Design Consideration [1]
	Small-Scale Structure-Mounted Solar Energy Systems
Aesthetics / Land Use	Conformance with State and County Requirements. A small-scale solar energy system shall be in conformance with the California Solar Rights Act (California Civil Code Sections 714 et seq. and as may be amended from time to time), the California Solar Shade Control Act (California Public Resources Code Sections 25980 et seq. and as may be amended from time to time), and any other applicable State or County Code requirements.
	The combined height of a structure and structure-mounted small-scale solar energy system shall not exceed the height limit of the zone by more than 5 feet.
	Small-Scale Ground-Mounted Solar Energy Systems
Aesthetics / Land Use	Conformance with State and County Requirements. A small-scale solar energy system shall be in conformance with the California Solar Rights Act (California Civil Code Sections 714 et seq. and as may be amended from time to time), the California Solar Shade Control Act (California Public Resources Code Sections 25980 et seq. and as may be amended from time to time), and any other applicable State or County Code requirements.
	Height. The height of the solar array shall not exceed 15 feet.
	Maximum lot coverage. The maximum lot coverage for solar arrays and any solar or wind energy accessory structures, shall be 25% of the lot or parcel of land or 2.5 acres, whichever is lesser.
	Small-Scale Wind Energy Systems[2]
Aesthetics	Maximum tower height. Tower height shall be measured from the ground to the top of the tower, excluding the wind turbine generator, blades, and wind-measuring devices, as applicable. a. The tower shall not exceed a height of 35 feet above grade for lots or parcels less than one acre in size. b. The tower shall not exceed a height of 65 feet above grade for lots or parcels from one acre to less than two acres in size. c. The tower shall not exceed a height of 85 feet above grade for lots or parcels two acres or greater in size.
	Colors. The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development.
	Lighting. A safety light that meets FAA standards shall be required for all facilities exceeding 50 feet in height, including any wind turbine generator, wind-measuring devices, and the highest vertical extent of any blades. A safety light may also be required on shorter towers. All required lights shall be shielded from adjacent properties, and no other lights shall be placed upon the tower.
	Signs. One sign, limited to 18 inches in length and one foot in height, shall be posted at the base of the tower; the sign shall include a notice of no trespassing, a warning of high voltage, and the phone number of the property owner to call in the event of an emergency.
	Visual Effects. a. No small-scale wind energy system shall be placed or constructed in such a way that it silhouettes against the skyline above any major ridgeline when viewed from any designated major, secondary, or limited secondary highway on the County Highway Plan, from any designated scenic highway, or from any significantly inhabited area, as determined by the director. As used in Part 15, major ridgeline shall mean any ridgeline that surrounds or visually dominates the landscape, as determined by the director, due to its: i. Size in relation to the hillside or mountain terrain of which it is a part; ii. Silhouetting appearance against the sky, or appearance as a significant natural backdrop; iii. Proximity to and visibility from existing development or major transportation corridors; or iv. Significance as an ecological, historical or cultural resources, including a ridgeline that provides a natural buffer between communities or is part of a park or trails system.

Table 3-2
Environmental Design Considerations
(per proposed Zoning Code amendments)

Issue Area	Environmental Design Consideration [1]
	b. The top of a small-scale wind energy system, including the wind turbine generator and the highest vertical extent of the blades, shall be located at least 25 vertical feet below the top of any adjacent major ridgeline, and a small-scale wind energy system shall be located at least 100 horizontal feet from any adjacent major ridgeline. c. Any small-scale wind energy system that is placed within the viewshed of a designated Major, Secondary, Limited Secondary, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. d. The placement of a small-scale wind energy system shall not obstruct views of the ocean from any residence or highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan.
Land Use	Minimum lot size. The minimum lot or parcel size shall be 0.5 acres.
	Displacement of parking prohibited. The location of a small-scale wind energy shall not result in the displacement of required parking as specified in Part 11 of Chapter 22.52 of the Zoning Code.
Noise	Noise. Noise from a small-scale wind energy system shall not exceed 60 dBA SEL (single event noise level), as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms.
Hazards	Location. a. The minimum distance between a small-scale wind energy system and any property line or road right-of-way, shall be the distance which is the equivalent to the height of the facility, including any wind turbine generator, wind-measuring devices, and the highest vertical extent of any blades, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. b. No part of a small-scale wind energy system shall be located within or over drainage, utility, or other established easements, or on or over property lines. c. Safe clearance shall be provided between a small-scale wind energy system and all structures and trees.
	Climbing Apparatus. All climbing apparatus must be located at least 12 feet above the ground, and the tower must be designed to prevent climbing within the first 12 feet.
	Compliance with aviation-safety standards. The director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42, as applicable. Any comments received within 30 days of distribution will be considered in establishing conditions, as appropriate.
	Maintenance. Facilities shall be maintained in operational condition that poses no potential safety hazards.
	Clearance of blade above ground level. No portion of a small-scale wind energy system blade shall extend within 20 feet of the ground.
	Automatic overspeed controls. A small-scale wind energy system shall be equipped with manual and automatic overspeed controls to limit the blade rotation speed to within the design limits of the small-scale wind energy system.
Biology	Guy wires. The use of guy wires shall be prohibited.
	Impacts to birds and bats. The following shall apply for all ground-mounted small-scale wind energy systems. a. Use of trellis-style towers is prohibited. b. Buffers. The following buffers shall apply to reduce impacts to birds and bats: i. No part of the ground-mounted small-scale wind energy system shall be closer than 300 feet or five times the tallest wind tower height including the wind turbine generator, wind-measuring devices, and highest vertical extent of any blades, whichever is greater, from the following: (A) Bat roosting sites;

Table 3-2
Environmental Design Considerations
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Issue Area	Environmental Design Consideration [1]
	(B) Recorded open space easements and publicly designated preserve areas; and (C) Riparian areas and wetlands. ii. No part of the ground-mounted small-scale wind energy system shall be closer than one mile from a known golden eagle nest site. c. Tower base. The vegetation within a 10 foot radius of the base of a wind tower shall be mowed and appropriate measures shall be applied to prevent re-growth, but removal of existing vegetation root systems shall be prohibited.
	Temporary MET Towers[2]
Aesthetics	Maximum tower height. Tower height shall be measured from the ground to the top of the tower, excluding the wind turbine generator, blades, and wind-measuring devices, as applicable. a. The tower shall not exceed a height of 35 feet above grade for lots or parcels less than one acre in size. b. The tower shall not exceed a height of 65 feet above grade for lots or parcels from one acre to less than two acres in size. c. The tower shall not exceed a height of 85 feet above grade for lots or parcels two acres or greater in size.
	Colors. The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development.
	Lighting. A safety light that meets FAA standards shall be required for all facilities exceeding 50 feet in height, including any wind turbine generator, wind-measuring devices, and the highest vertical extent of any blades. A safety light may also be required on shorter towers. All required lights shall be shielded from adjacent properties, and no other lights shall be placed upon the tower.
	Signs. One sign, limited to 18 inches in length and one foot in height, shall be posted at the base of the tower; the sign shall include a notice of no trespassing, a warning of high voltage, and the phone number of the property owner to call in the event of an emergency.
Land Use	Minimum lot size. The minimum lot or parcel size shall be 0.5 acres.
	Displacement of parking prohibited. The location of a temporary Met tower shall not result in the displacement of required parking as specified in Part 11 of Chapter 22.52 of the Zoning Code.
Hazards	Location. a. The minimum distance between a temporary MET tower and any property line or road right-of-way, shall be the distance which is the equivalent to the height of the facility, including any wind turbine generator, wind-measuring devices, and the highest vertical extent of any blades, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. b. No part of a temporary MET tower shall be located within or over drainage, utility, or other established easements, or on or over property lines. c. Safe clearance shall be provided between a temporary MET tower and all structures and trees.
	Climbing Apparatus. All climbing apparatus must be located at least 12 feet above the ground, and the tower must be designed to prevent climbing within the first 12 feet.
	Compliance with aviation-safety standards. The director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42, as applicable. Any comments received within 30 days of distribution will be considered in establishing conditions, as appropriate.
	Maintenance. Facilities shall be maintained in operational condition that poses no potential safety hazards.

Table 3-2
Environmental Design Considerations
(per proposed Zoning Code amendments)

Issue Area	Environmental Design Consideration [1]
Biology	Guy wires. The use of guy wires shall be prohibited.
	Utility-Scale Structure-Mounted Solar Energy Facilities
Aesthetics / Land Use	Accessory Structures. Accessory structures constructed for the purposes of operating and maintaining the utility-scale renewable energy facility must meet all applicable development standards of the zone.
	Height. The combined height of a structure and structure-mounted utility-scale wind energy facility shall not exceed the height limit of the zone by more than five feet.
	Setbacks. Setbacks from the perimeter of the roof shall be: 1. Three feet on residential buildings; or 2. Four feet on non-residential buildings.
Aesthetics / Hazards	Glare. All utility-scale solar energy facilities shall be designed and located in such a way to minimize reflective glare toward any habitable structure on adjacent properties as well as adjacent street rights-of-way.
	Utility-Scale Ground-Mounted Solar Energy Facilities
Aesthetics / Land Use	Accessory Structures. Accessory structures constructed for the purposes of operating and maintaining the utility-scale renewable energy facility must meet all applicable development standards of the zone.
	Height. Height of the solar array shall not exceed 25 feet.
	Setbacks. Setbacks from the property line shall be: 1. A minimum of 30 feet in agricultural zones; or 2. As provided in the base zone for all non-agricultural zones.
Aesthetics/ Hazards	Glare. All utility-scale solar energy facilities shall be designed and located in such a way to minimize reflective glare toward any habitable structure on adjacent properties as well as adjacent street rights-of-way.
Aesthetics	Fencing. Fencing shall be required around the perimeter of the facility. In addition to the California Public Utilities Commission and United States Occupational Safety and Health Administration fencing guidelines for substations, all fencing shall comply with the following, except as otherwise required by Public Works to maintain minimum corner sight distance: a. Opaque and non-opaque fences are permitted. b. Fencing up to eight feet in height is permitted. c. Fencing shall not be located within 15 feet of a public right-of-way but may be located within the required setback area. d. Facility perimeter fencing shall incorporate small animal-permeable design.
	Lighting. In addition to Part 9 of Chapter 22.44 of the Zoning Code, outdoor lighting within the Rural Outdoor Lighting District, which is limited to that required for safety and security, shall be shielded and directed downward to avoid light trespass, and shall consist of: a. Motion sensors for entry-lighting to the on-site equipment structures and buildings; and b. Light-sensor or motion-sensor lighting for the main facility access gate, operations and maintenance building doorways, and any parking areas of facilities with operation and maintenance buildings.
	Significant Ridgelines. The highest point of a utility-scale solar energy facility shall 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 within an applicable Community Standards District.
	Scenic resources. Any utility-scale solar energy facility placed within the viewshed of a Scenic Drive, Scenic Highway or Scenic Route identified in the General Plan, an applicable Area or Community Plan, or Community Standards District shall be analyzed for any associated negative impacts, including but not limited to visual impacts. Appropriate conditions relating to siting, buffering, height, and design of the facility may be imposed to minimize significant effects on the viewshed.

Table 3-2
Environmental Design Considerations
(per proposed Zoning Code amendments)

Issue Area	Environmental Design Consideration [1]
	Landscape Buffer. The following conditions shall apply: (A) A landscaped area at least 10 feet in depth shall be maintained along any project perimeter fencing, between such fencing and any public right-of-way or adjacent property with an existing residential or agricultural use. (B) Existing non-invasive, drought-tolerant vegetation approved by the staff biologist shall be retained, and/or new non-invasive, drought-tolerant vegetation approved by the staff biologist shall be planted within the landscaped area within the time frames specified in the permit conditions. (C) The landscaped area shall incorporate a variety of design elements appropriate for the surrounding area, including but not limited to hardscape, such as decorative rocks, boulders, berms, and fencing; and softscape, such as trees, shrubs, vines, and succulents. In no way shall the hardscape or softscape features adversely affect drainage patterns. (D) The landscaped area shall be established in such manner that adequate corner sight distance is maintained from all access roads to the public right-of-way to the satisfaction of the Director of DPW. (E) The landscaped area shall be planted and temporary irrigation system installed prior to final permit inspection of the project or project phase to the satisfaction of the Director of Regional Planning. Establishment of the plantings shall be verified at the time of regular inspections according to inspection time frames in the permit conditions. (F) The landscaped area shall be maintained throughout the life of the facility.
	Signs. One ground-mounted or pole-mounted project identification sign shall be located at each temporary and permanent ingress and egress point. Signs shall include owner information and emergency contact. No other signs shall be installed for the facility other than safety, directional, and required warning signs as outlined in Part 10 of Section 22.52.
	Transmission Lines. On-site and off-site transmission lines shall be placed underground to the satisfaction of Regional Planning and DPW, except where above-ground crossings are otherwise required (such as over the California Aqueduct). A franchise agreement will be required for distribution/transmission facilities within the public right-of-way. Disturbed areas shall comply with Section 22.52.1670(A.1.b.v) of the proposed Zoning Code amendments (see Appendix A) to ensure dust control and minimal soil erosion.
Geology	Site disturbance. The measures found in this subsection shall in no way be construed as a substitute for compliance with State requirements imposed by the applicable Air Quality Management District, and the following additional conditions shall apply. (A) Soil erosion. To ensure dust control and minimal soil erosion, existing vegetation may be mowed, but removal of existing vegetation root systems shall be prohibited, except where necessary for construction of access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County. (B) Hydrology. The facility shall be designed to minimize erosion, sedimentation, or other impacts to the natural hydrology and drainage patterns of the property. Existing topography and watercourses shall be retained or restored to pre-development conditions following construction and during operations, except for drainage features specifically designed to mitigate drainage impacts. Prior to any discretionary approval, a hydrology study shall be prepared in compliance with the most recent County standards for addressing drainage impacts to the satisfaction of DPW. (C) Grading. To control fugitive dust and preserve the natural topography, the facility shall be designed in such a way that the ground disturbance or grading is limited to only the access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County. A site plan consistent with application materials required under Section 22.52.1615 shall depict the extent of grading and/or ground disturbance, and the facility shall comply with all applicable grading standards. (D) Fugitive dust control plan. A fugitive dust control plan including a dust plume response plan shall be prepared by the permittee for review and approval by applicable agencies prior to any earthwork activities. (E) Construction practices.

Table 3-2
Environmental Design Considerations
(per proposed Zoning Code amendments)

Issue Area	Environmental Design Consideration [1]
	a. Fugitive dust. Fugitive dust emission shall be controlled by phased earthwork, site watering, use of clean gravel not to exceed a depth of six inches where applicable, application of non-toxic soil stabilizers, limiting public access on unpaved areas, posting private roadways with reduced speeds, and/or re-vegetation. Use of other fugitive dust mitigation measures may be implemented by the permittee if determined by applicable agencies to be suitable methods to adequately control dust in a safe manner during construction, operation, and removal and restoration activities b. Vegetation. Work where the facility components are being installed in areas with existing vegetation, shall be conducted with minimal disturbance, and the permittee shall take all necessary precautions to not use vehicles or machinery for grading or alter the existing grade in these areas. When vehicles or machinery are deemed necessary for installation, appropriate ground-protection practices (such as construction mats, stabilizers, or established vegetation) shall be utilized for both dust suppression and to ensure that the use of vehicles or machinery is compatible with continued and future vegetation growth. The permittee shall retain a biologist to confirm that construction practices are compatible with continued and future vegetation growth. Any grading, disking, scraping, or other ground disturbance proposed as part of the facility shall be permanently stabilized with an earth-stabilizing product or other measure that is acceptable to Regional Planning, DPW, and the Department of Public Health to prevent fugitive dust.
Hazards	Access Roads. All temporary and permanent ingress and egress points to the facility shall be designed and sited to the satisfaction of DPW and the Fire Department, and shall consider adequate spacing from intersections and maintain adequate sight distances. Dirt access roads shall be treated with a suitable non-toxic long-term soil-binder, or application of similarly effective material to control dust such as use of gravel.
Land Use	Coastal Zone. Within the Coastal Zone, the placement of any utility-scale solar energy facility shall comply with the applicable Local Coastal Plan.
Water Quality	Water Quality Protection. Measures to protect groundwater and surface water from waste discharge shall be incorporated into the facility design, as appropriate, and shall meet the requirements of the Regional Water Quality Control Board.
Utilities	Water use. (A) The facility shall use the minimum amount of water required during the construction period. The facility shall be limited to the maximum use of water as established by the Hearing Officer for the duration of the construction period. (B) The facility shall use the minimum amount of water required during the operation of the facility. The facility shall be limited to the maximum use of water as established by the Hearing Officer for the operation of the project for the duration of this grant. (C) The facility shall use piped recycled water if it is available from the public right-of-way within 1 mile of the property at fair market value and suitable for use, and if deemed appropriate by the staff biologist. If such piped recycled water does not meet the facility's water demand, the facility shall use piped potable water to supplement piped recycled water if it is available from the public right-of-way within 1 mile from the property at fair market value and suitable for use. (D) The permittee shall maintain a daily log, which shall include the number of gallons and acre-feet of water used on the project site used for the following, which includes, but is not limited to: construction, operation, maintenance, landscaping, and irrigation. The permittee shall complete the record of monthly water usage by source within 5 working days following the conclusion of each calendar month. The log shall be made available to Regional Planning upon demand.
Utility-Scale Structure-Mounted Wind Energy Facilities	
Aesthetics / Land Use	Accessory Structures. Accessory structures constructed for the purposes of operating and maintaining the utility-scale renewable energy facility must meet all applicable development standards of the zone.
	Height. The combined height of a structure and structure-mounted utility-scale wind energy facility shall not exceed the height limit of the zone by more than five feet.

Table 3-2
Environmental Design Considerations
(per proposed Zoning Code amendments)

Issue Area	Environmental Design Consideration [1]
	Setbacks. Setbacks from the perimeter of the roof shall be: 1. Three feet on residential buildings; or 2. Four feet on non-residential buildings.
Aesthetics	Lighting. In addition to Part 9 of Chapter 22.44 of the Zoning Code, outdoor lighting within the Rural Outdoor Lighting District, which is limited to that required for safety and security, shall be shielded and directed downward to avoid light trespass, and shall consist of motion sensors for entry-lighting to the on-site equipment structures and buildings.
	Colors. The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development.
	Visual Effects. a. No utility-scale structure-mounted wind energy facility shall be placed or constructed in such a way that it silhouettes against the skyline above any major ridgeline when viewed from any designated major, secondary, or limited secondary highway on the County Highway Plan, from any designated scenic highway, or from any significantly inhabited area, as determined by the director. As used in Part 15, major ridgeline shall mean any ridgeline that surrounds or visually dominates the landscape, as determined by the director, due to its: i. Size in relation to the hillside or mountain terrain of which it is a part; ii. Silhouetting appearance against the sky, or appearance as a significant natural backdrop; iii. Proximity to and visibility from existing development or major transportation corridors; or iv. Significance as an ecological, historical or cultural resources, including a ridgeline that provides a natural buffer between communities or is part of a park or trails system. b. The top of a utility-scale structure-mounted wind energy facility, including the wind turbine generator and the highest vertical extent of the blades, shall be located at least 25 vertical feet below the top of any adjacent major ridgeline, and a small-scale wind energy system shall be located at least 100 horizontal feet from any adjacent major ridgeline. c. Any utility-scale structure-mounted wind energy facility that is placed within the viewshed of a designated Major, Secondary, Limited Secondary, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. d. The placement of a utility-scale structure-mounted wind energy facility shall not obstruct views of the ocean from any residence or highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan.
Noise	Noise. Noise from a utility-scale structure-mounted wind energy facility shall not exceed 60 dBA SEL (single event noise level), as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms.
Hazards	Aviation safety. a. A utility-scale structure-mounted wind energy facility shall not be located within the Runway Protection Zone of any airport, as depicted in the County's airport land use compatibility plans. b. A utility-scale structure-mounted wind energy facility shall not penetrate the imaginary surfaces (primary, approach, transitional, horizontal, and conical surfaces) as defined by the Federal Aviation Administration Federal Aviation Regulations Part 77 to protect the use of navigable airspace. c. Wind tower lighting shall be prohibited unless required by the Federal Aviation Administration or other applicable law. Any aviation-related agency or Regional Planning may impose additional requirements as deemed necessary.

Table 3-2
Environmental Design Considerations
(per proposed Zoning Code amendments)

Issue Area	Environmental Design Consideration [1]
	Maintenance. Facilities shall be maintained in operational condition that poses no potential safety hazards.
	Automatic overspeed controls. A utility-scale structure-mounted wind energy facility shall be equipped with manual and automatic overspeed controls to limit the blade rotation speed to within the design limits of the small-scale wind energy system.
Biology	Guy wires. The use of guy wires shall be prohibited.
	Utility-Scale Ground-Mounted Wind Energy Facilities
Aesthetics / Land Use	Accessory Structures. Accessory structures constructed for the purposes of operating and maintaining the utility-scale renewable energy facility must meet all applicable development standards of the zone.
	Maximum height. Wind tower height, including the wind turbine generator, wind-measuring devices, and highest vertical extent of any blades, shall not exceed 500 feet above finished grade.
	Setback. The minimum setback for a utility-scale wind energy facility shall be as depicted in Table 22.52.1645-A (see Appendix A) unless a greater setback is required to comply with any applicable fire setback requirements pursuant to the Public Resources Code section 4290. For the purposes of this Section, wind tower height shall include the wind turbine generator, wind-measuring devices, and highest vertical extent of any blades.
Aesthetics	Lighting. In addition to Part 9 of Chapter 22.44 of the Zoning Code, outdoor lighting within the Rural Outdoor Lighting District, which is limited to that required for safety and security, shall be shielded and directed downward to avoid light trespass, and shall consist of motion sensors for entry-lighting to the on-site equipment structures and buildings.
	Lighting. In addition to Part 9 of Chapter 22.42 of the Zoning Code, for facilities within the Rural Outdoor Lighting District, light-sensor or motion-sensor lighting shall be required for the main facility access gate, operations and maintenance building doorways, and any parking areas of facilities with operation and maintenance buildings.
	Fencing. In addition to the California Public Utilities Commission and United States Occupational Safety and Health Administration fencing guidelines for substations, all fencing shall comply with the following, except as otherwise required by Public Works to maintain minimum corner sight distance: a. Opaque and non-opaque fences may be permitted. b. Fencing up to eight feet in height is permitted regardless of any other fencing standards. c. Fencing shall not be located within 15 feet of a public right-of-way but may be located within the required setback area. d. Facility perimeter fencing shall incorporate small animal-permeable design.
	Significant ridgelines. The highest point of a small-scale wind energy system shall be located at least 50 vertical feet and 300 horizontal feet from a significant ridgeline identified in the General Plan, in an applicable Area or Community Plan, or within an applicable Community Standards District.
	Signs. One ground-mounted or pole-mounted project identification sign shall be located at each temporary and permanent ingress and egress point. Signs shall include owner information and emergency contact. No other signs shall be installed for the facility other than safety, directional, and required warning signs as outlined in Part 10 of Section 22.52.
	Scenic resources. Any utility-scale solar energy facility placed within the viewshed of a Scenic Drive, Scenic Highway or Scenic Route identified in the General Plan, an applicable Area or Community Plan, or Community Standards District shall be analyzed for any associated negative impacts, including but not limited to visual impacts. Appropriate conditions relating to siting, buffering, height, and design of the facility may be imposed to minimize significant effects on the viewshed.
	Landscape Buffer. The following conditions shall apply: (A) A landscaped area at least 10 feet in depth shall be maintained along any project perimeter fencing, between such fencing and any public right-of-way or adjacent property with an existing residential or agricultural use. (B) Existing non-invasive, drought-tolerant vegetation approved by the staff biologist shall be retained, and/or new non-invasive, drought-

Table 3-2
Environmental Design Considerations
(per proposed Zoning Code amendments)

Issue Area	Environmental Design Consideration [1]
	tolerant vegetation approved by the staff biologist shall be planted within the landscaped area within the time frames specified in the permit conditions. (C) The landscaped area shall incorporate a variety of design elements appropriate for the surrounding area, including but not limited to hardscape, such as decorative rocks, boulders, berms, and fencing; and softscape, such as trees, shrubs, vines, and succulents. In no way shall the hardscape or softscape features adversely affect drainage patterns. (D) The landscaped area shall be established in such manner that adequate corner sight distance is maintained from all access roads to the public right-of-way to the satisfaction of the Director of DPW. (E) The landscaped area shall be planted and temporary irrigation system installed prior to final permit inspection of the project or project phase to the satisfaction of the Director of Regional Planning. Establishment of the plantings shall be verified at the time of regular inspections according to inspection time frames in the permit conditions. (F) The landscaped area shall be maintained throughout the life of the facility.
	Transmission Lines. On-site and off-site transmission lines shall be placed underground to the satisfaction of Regional Planning and DPW, except where above-ground crossings are otherwise required (such as over the California Aqueduct). A franchise agreement will be required for distribution/transmission facilities within the public right-of-way. Disturbed areas shall comply with Section 22.52.1670(A.1.b.v) of the proposed Zoning Code amendments (see Appendix A) to ensure dust control and minimal soil erosion.
	Colors. Except as otherwise required in the proposed Zoning Code amendments, the colors used in the construction materials or finished surface shall be muted and visually compatible with the surrounding development or environment.
Biology	Guy wires. The use of guy wires shall be prohibited.
	Use of trellis-style towers is prohibited.
	Tower base. The vegetation within a 10 foot radius of the base of a wind tower shall be mowed and appropriate measures shall be applied to prevent re-growth, but removal of existing vegetation root systems shall be prohibited.
	Impacts to birds and bats. The following buffers shall apply to reduce impacts to birds and bats: a. No part of a ground-mounted utility-scale wind energy facility shall be closer than 0.25 miles from the following: (1) Adopted Significant Ecological Areas; (2) Recorded open space easements and publicly designated preserve areas; and (3) Riparian areas and wetlands. b. No part of a ground-mounted utility-scale wind energy facility shall be closer than 0.5 miles from bat roosting sites. c. No part of a ground-mounted utility-scale wind energy facility shall be closer than one mile from a known golden eagle nest site.
	Slope setbacks in Hillside Management Areas. The project shall map the location of Hillside Management Area, as defined in Section 22.08.080 of the Zoning Code, located within a 500-foot radius of any proposed small-scale wind energy system where the system exceeds 50 vertical feet as measured from the base of the slope where it equals or exceeds 25% slope. For any of these mapped areas, all small-scale wind energy systems shall be located at least 300 horizontal feet from the maximum elevations, which are the highest points where the land slopes away, and the highest point of the small-scale wind energy system shall not protrude above these maximum elevations.
Geology	Site disturbance. The measures found in this subsection shall in no way be construed as a substitute for compliance with State requirements imposed by the applicable Air Quality Management District, and the following additional conditions shall apply. (A) Soil erosion. To ensure dust control and minimal soil erosion, existing vegetation may be mowed, but removal of existing vegetation root systems shall be prohibited, except where necessary for construction of access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County.

Table 3-2
Environmental Design Considerations
(per proposed Zoning Code amendments)

Issue Area	Environmental Design Consideration [1]
	(B) Hydrology. The facility shall be designed to minimize erosion, sedimentation, or other impacts to the natural hydrology and drainage patterns of the property. Existing topography and watercourses shall be retained or restored to pre-development conditions following construction and during operations, except for drainage features specifically designed to mitigate drainage impacts. Prior to any discretionary approval, a hydrology study shall be prepared in compliance with the most recent County standards for addressing drainage impacts to the satisfaction of DPW. (C) Grading. To control fugitive dust and preserve the natural topography, the facility shall be designed in such a way that the ground disturbance or grading is limited to only the access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County. A site plan consistent with application materials required under Section 22.52.1615 shall depict the extent of grading and/or ground disturbance, and the facility shall comply with all applicable grading standards. (D) Fugitive dust control plan. A fugitive dust control plan including a dust plume response plan shall be prepared by the permittee for review and approval by applicable agencies prior to any earthwork activities. (E) Construction practices. a. Fugitive dust. Fugitive dust emission shall be controlled by phased earthwork, site watering, use of clean gravel not to exceed a depth of six inches where applicable, application of non-toxic soil stabilizers, limiting public access on unpaved areas, posting private roadways with reduced speeds, and/or re-vegetation. Use of other fugitive dust mitigation measures may be implemented by the permittee if determined by applicable agencies to be suitable methods to adequately control dust in a safe manner during construction, operation, and removal and restoration activities b. Vegetation. Work where the facility components are being installed in areas with existing vegetation, shall be conducted with minimal disturbance, and the permittee shall take all necessary precautions to not use vehicles or machinery for grading or alter the existing grade in these areas. When vehicles or machinery are deemed necessary for installation, appropriate ground-protection practices (such as construction mats, stabilizers, or established vegetation) shall be utilized for both dust suppression and to ensure that the use of vehicles or machinery is compatible with continued and future vegetation growth. The permittee shall retain a biologist to confirm that construction practices are compatible with continued and future vegetation growth. Any grading, disking, scraping, or other ground disturbance proposed as part of the facility shall be permanently stabilized with an earth-stabilizing product or other measure that is acceptable to Regional Planning, DPW, and the Department of Public Health to prevent fugitive dust.
Hazards	Aviation safety. a. A utility-scale ground-mounted wind energy facility shall not be located within the Runway Protection Zone of any airport, as depicted in the County's airport land use compatibility plans. b. A utility-scale ground-mounted wind energy facility shall not penetrate the imaginary surfaces (primary, approach, transitional, horizontal, and conical surfaces) as defined by the Federal Aviation Administration Federal Aviation Regulations Part 77 to protect the use of navigable airspace. c. Wind tower lighting shall be prohibited unless required by the Federal Aviation Administration or other applicable law. Any aviation-related agency or Regional Planning may impose additional requirements as deemed necessary.
	Aviation safety. Wind towers of less than 200 feet in height, measured from finished grade shall be marked with alternating bands of aviation orange and white paint.
	Blade clearance. No portion of a utility-scale wind energy facility blade shall extend within 30 feet from the finished grade.
	Climbing Apparatus. All climbing apparatus must be located at least 12 feet above the ground, and the tower must be designed to prevent climbing within the first 12 feet.

Table 3-2
Environmental Design Considerations
(per proposed Zoning Code amendments)

Issue Area	Environmental Design Consideration [1]
	Automatic overspeed controls. A utility-scale ground-mounted wind energy facility shall be equipped with manual and automatic overspeed controls to limit the blade rotation speed to within the design limits of the utility-scale ground-mounted wind energy facility.
	Maintenance. All equipment and wind towers shall be maintained in an operational condition that poses no potential safety hazards. Maintenance shall include, but not be limited to, painting, regularly scheduled cleaning, routine mechanical and/or electrical repairs, structural repairs, and security measures.
	Access Roads. All temporary and permanent ingress and egress points to the facility shall be designed and sited to the satisfaction of DPW and the Fire Department, and shall consider adequate spacing from intersections and maintain adequate sight distances. Dirt access roads shall be treated with a suitable non-toxic long-term soil-binder, or application of similarly effective material to control dust such as use of gravel.
Noise	Noise. Noise from a utility-scale wind energy system shall not exceed 60 dBA L_{eq} (equivalent sound level), as measured at the closest existing neighboring inhabited dwelling at the time of approval, or closest property line, whichever is closer.
Water Quality	Water Quality Protection. Measures to protect groundwater and surface water from waste discharge shall be incorporated into the facility design, as appropriate, and shall meet the requirements of the Regional Water Quality Control Board.
Utilities	Water use. (A) The facility shall use the minimum amount of water required during the construction period. The facility shall be limited to the maximum use of water as established by the Hearing Officer for the duration of the construction period. (B) The facility shall use the minimum amount of water required during the operation of the facility. The facility shall be limited to the maximum use of water as established by the Hearing Officer for the operation of the project for the duration of this grant. (C) The facility shall use piped recycled water if it is available from the public right-of-way within 1 mile of the property at fair market value and suitable for use, and if deemed appropriate by the staff biologist. If such piped recycled water does not meet the facility's water demand, the facility shall use piped potable water to supplement piped recycled water if it is available from the public right-of-way within 1 mile from the property at fair market value and suitable for use. (D) The permittee shall maintain a daily log, which shall include the number of gallons and acre-feet of water used on the project site used for the following, which includes, but is not limited to: construction, operation, maintenance, landscaping, and irrigation. The permittee shall complete the record of monthly water usage by source within 5 working days following the conclusion of each calendar month. The log shall be made available to Regional Planning upon demand.
Projects Subject to Discretionary Permits	
Hazards	Aviation Review. For any use subject to a Minor Conditional Use Permit or Conditional Use Permit and located within a Military Installations and Operations Area (MIOA) or Airport Influence Areas (AIAs) as identified by the General Plan or applicable Airport Land Use Compatibility Plan(s), the following provisions apply: A. Consultation. Aviation-related agencies shall be consulted for review of the proposed use for any potential impacts to ensure the safety of residents and continued viability of military training and testing operations. The Department shall distribute copies of the proposed site plan, elevation plan, and location map to the aviation-related agencies and shall request comments within a minimum 30-day period. Applicable aviation-related agencies to be consulted include, but are not limited to, the FAA, United States Navy, Edwards Air Force Base, Air Force Plant 42, United States Forest Service, California Department of Transportation Division of Aeronautics, Public Works – Aviation Division, Department Airport Land Use Commission, County Forester and Fire Warden, and County Sheriff. The consultation review shall request consideration of the following: 1. Uses that produce electromagnetic and frequency spectrum interference, which could impact military operations;

Table 3-2
Environmental Design Considerations
(per proposed Zoning Code amendments)

Issue Area	Environmental Design Consideration [1]
	2. Uses that release into the air any substances that may impair visibility such as steam, dust, or smoke; 3. Uses that produce light emissions that could interfere with pilot vision or be mistaken for airfield lighting such as glare or distracting lights; and 4. Uses that physically obstruct any portion of the MIOA due to relative height above ground level; 5. Uses, such as utility-scale solar and wind energy facilities, that may affect aviation fire fighting operations. Any comments received through consultation shall be considered by the Department and provided to the Hearing Officer.
Land Use	General Findings. A. Except for Temp Met Towers and small-scale wind energy systems, in addition to the findings required under Part 1 of Chapter 22.56 of the Zoning Code, the Hearing Officer shall approve a Minor Conditional Use Permit or Conditional Use Permit if he or she finds that: 1. The proposed use is sited and designed and will be constructed in such a way to minimize significant impacts to the environment, including impacts to birds and bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers; 2. The proposed use is sited in such a way to minimize site disturbance (i.e., grading, brush clearance, and other forms of earthwork); 3. For ground-mounted utility-scale solar energy facilities and utility-scale wind energy facilities, the proposed vegetation along facility perimeter fencing will: a. Sufficiently provide buffer from adjacent residential and agricultural uses through variable placement and muting of frontage or other sensitive viewsheds so as to provide a natural visual transition between the project and its surroundings, b. Sufficiently provide ground cover to the satisfaction of the staff biologist, and c. Provide such buffer and ground cover in a timely manner to the satisfaction of the staff biologist; and 4. If the proposed use penetrates the lower floor elevation of any MIOA, that the military operator of that MIOA has determined that the proposed use is not detrimental to the function of that MIOA and would not pose a health or safety hazard to military personnel or the public. B. The Hearing Officer shall approve a Minor Conditional Use Permit for a Temp Met Tower if he or she makes the findings required under Section 22.52.1635 of the Zoning Code. C. The Hearing Officer shall approve a Conditional Use Permit for a small-scale wind energy system if he or she makes the findings listed in Section 22.52.1640 of the Zoning Code.

[1] This table replaces Table 3-2 in the Draft EIR and represents revisions that have occurred in the proposed Zoning Code amendments subsequent to the release of the Draft EIR.

[2] With the exception of the measures listed under "Biological Resources," all provisions for small-scale wind energy systems and temporary MET towers are adopted provisions that are currently in Part 15 of the existing Zoning Code.

Table 3-3
Renewable Energy Permit Requirements

Permits Required By Zone						
	A-1	A-2, A-2-H	O-S, W	R-A, R-1, R-2, R-3, R-4	C-H, C-1, C-2, C-3, C-M, C-R, R-R	M-1, M-1.5, M-2, M-2.5, D-2

Table 3-3
Renewable Energy Permit Requirements

Permits Required By Zone						
Small-Scale Renewable Energy System						
Small-Scale Solar Energy System Structure-Mounted Ground-Mounted	P ZCR	P ZCR	P MCUP	P ZCR	P ZCR	P ZCR
Small-Scale Wind Energy System	MCUP	MCUP	MCUP in O-S; N/A in W	MCUP	~~MCUP~~N/A	N/A (MCUP in M-1 and D-2)
Utility-Scale Renewable Energy Facility						
Utility-Scale Renewable Energy Facility, Ground-Mounted[1]	N/A	CUP	N/A	N/A	CUP	CUP
Utility-Scale Solar Energy Facility, Structure-Mounted[‡]	~~SPR~~ P	~~SPR~~ P	N/A	~~SPR~~P (MCUP in the R-1 Zone[2])	~~SPR~~ P	~~SPR~~ P
Utility-Scale Wind Energy Facility, Structure-Mounted	MCUP	MCUP	N/A	MCUP (CUP in the R-1 Zone)	MCUP	MCUP
Temporary MET Tower	MCUP	MCUP	MCUP in O-S; N/A in W	MCUP	MCUP	MCUP

Notes: P = permitted; ZCR = Zoning Conformance Review; MCUP = Minor Conditional Use Permit; CUP=Conditional Use Permit; N/A = prohibited (permit not applicable); SPR = Site Plan Review; MET = meteorological.
Permit requirements in the coastal zone are subject to the applicable local coastal program.

1 It should also be noted that utility-scale ground-mounted solar and wind energy facilities would be prohibited in County-designated Significant Ecological Areas and in Economic Opportunity Areas designated in the Antelope Valley Area Plan.

2 Except for projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3).

Table 3-4
Setback Requirements for Utility-Scale Ground-Mounted Wind Energy Facilities

Setback From	Minimum Distance
On-Site Residence or Habitable Structure	2 × facility height
Public Road or Highway	As required by DPW to meet sight distance and minimum setback requirements from traveled lanes
Railway	2 × facility height
Aboveground Transmission Line, Public Access Easement, or Public Trail	2 × facility height
Property Line	2 × facility height
Buildings Other Than a Residential Structure	1 × facility height
Trees	As required by the Fire Department
Scenic Drives, Scenic Highways, and Scenic Routes as identified in the General Plan or in an applicable Area or Community Plan or applicable Community Standards District	2 × facility height

Table 3-5
Setback Requirements for Temporary MET Towers and Small-Scale Wind Energy Systems

Setback From	Minimum Distance
~~On-Site Residence or Habitable Structure~~	~~1.5 × system height~~
Public Road, Highway, or Railway	As required by DPW to meet sight distance and minimum setback requirements from traveled lanes
Railway	~~1.5 × system height~~ As required by applicable railroad safety standards.
~~Aboveground Transmission Line, Public Access Easement, or Public Trail~~	~~1.25 × system height~~
Property Line or road right-of-way	1 x system height~~1.25 × system height~~
~~Buildings Other Than a Residential Structure~~	~~1 × system height~~
Trees	As required by the Fire Department
~~Scenic Drives and Scenic Routes as identified in the General Plan or in an applicable Area or Community Plan~~	~~1,000 feet~~

Table 3-6
Approved and Proposed Renewable Energy Projects

Project Title	Project Type	Megawatts	Acres	Project Status
AV Solar Ranch One	PV solar	230	2100	Approved
Rutan	PV solar	4	45.3	Approved
West Antelope Solar Project	PV solar	20	263	Approved
Alpine Solar	PV solar	92	800	Approved
Alpine Solar Addition	PV solar	0	35	Approved
Antelope Valley Solar – LACo	PV solar	156	1,238	Approved
Silverado Power (comprising six individual project sites)	PV solar	172	755	Five of the individual projects have been approved; one has been recommended for approval
Quail Lake Photovoltaic Solar	PV solar	100	692	Initial review
Antelope Valley Solar	PV solar	7.5	80	Approved

Source: County of Los Angeles 2014c.
Notes: PV = photovoltaic.
This list of projects reflects approvals and proposals in the unincorporated County through March 20, 2014.

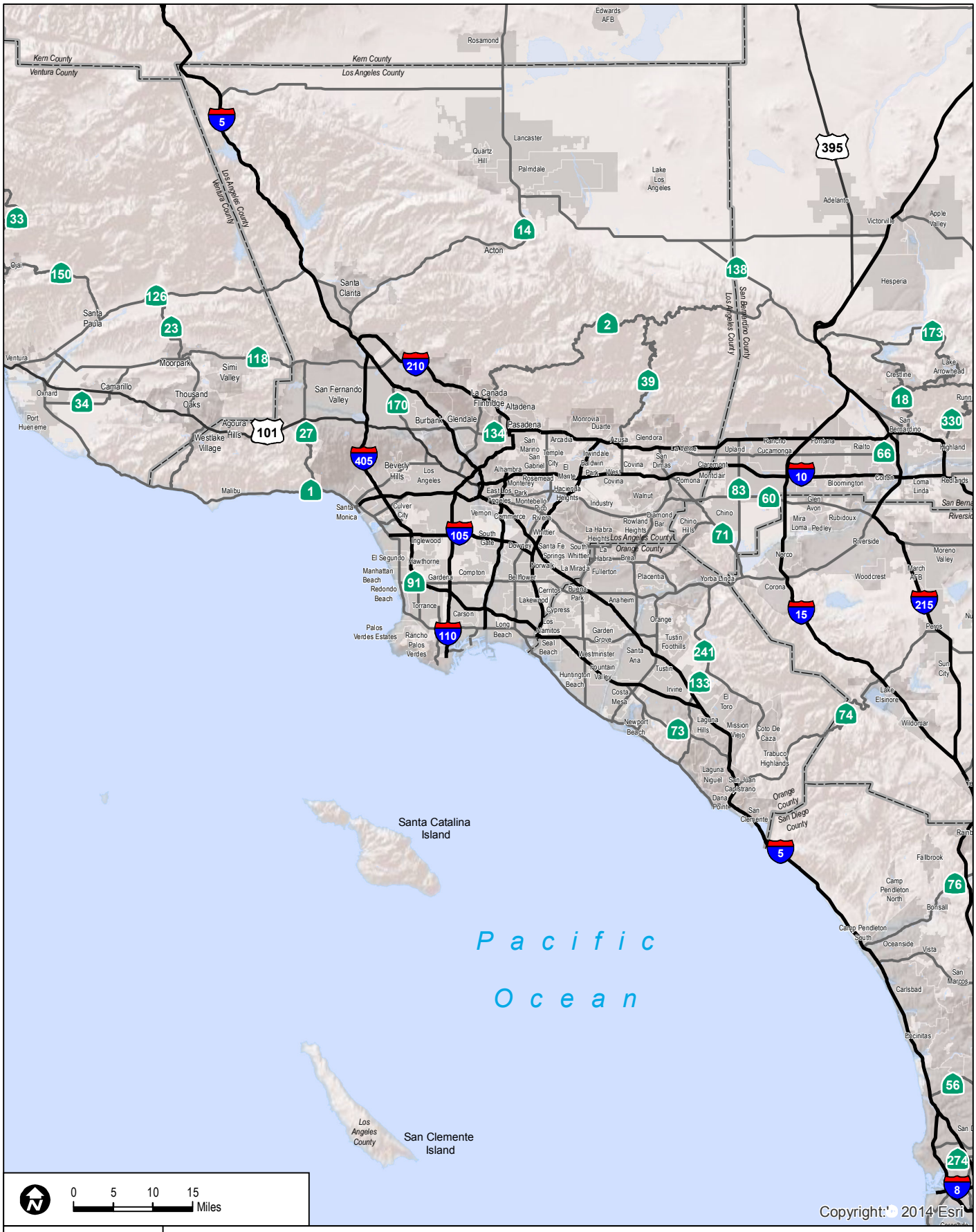

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FIGURE 3-1

Regional Location Map

Los Angeles County Renewable Energy Ordinance EIR

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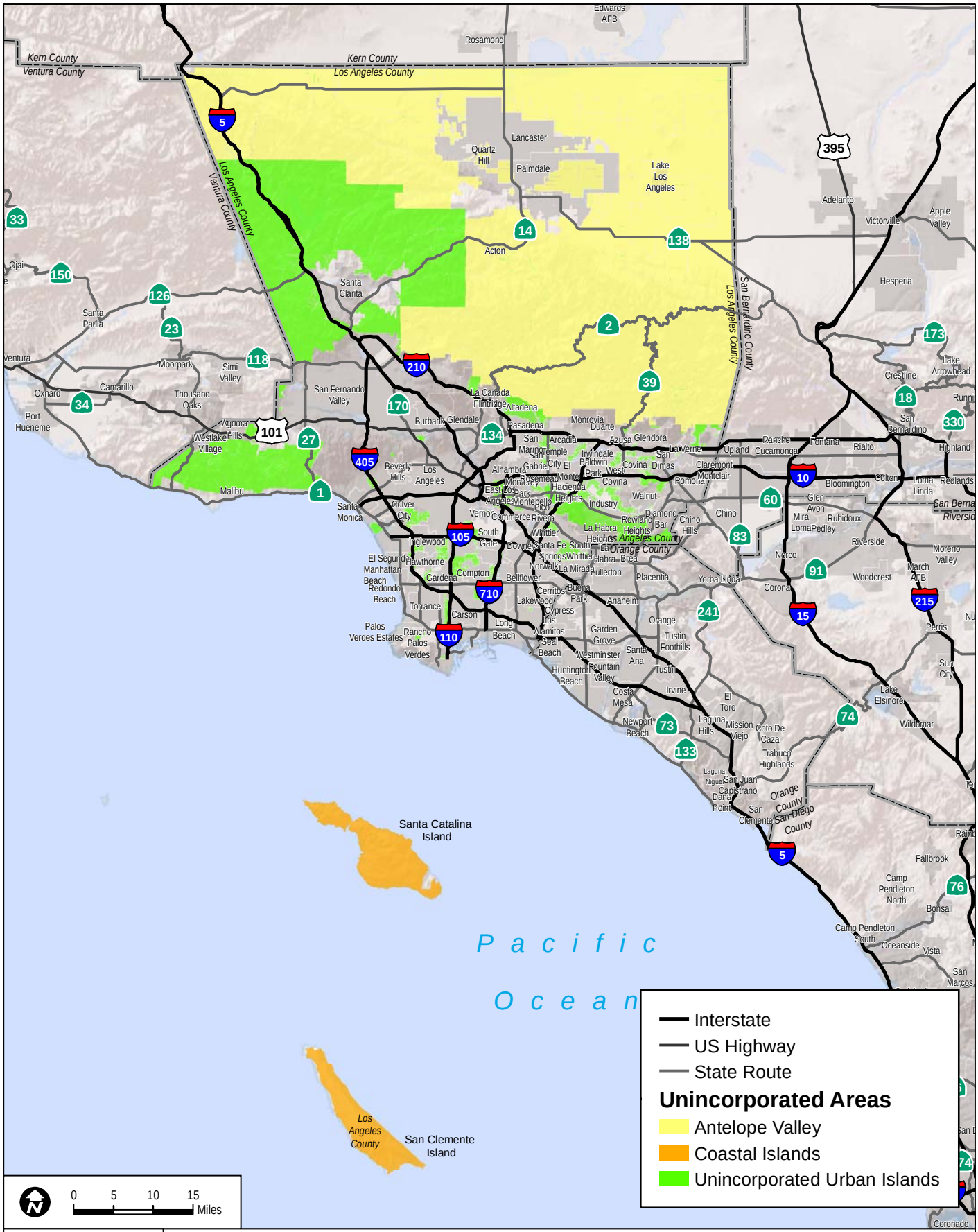

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SOURCE: Los Angeles County 2014

FIGURE 3-2

Project Location Map

Los Angeles County Renewable Energy Ordinance EIR

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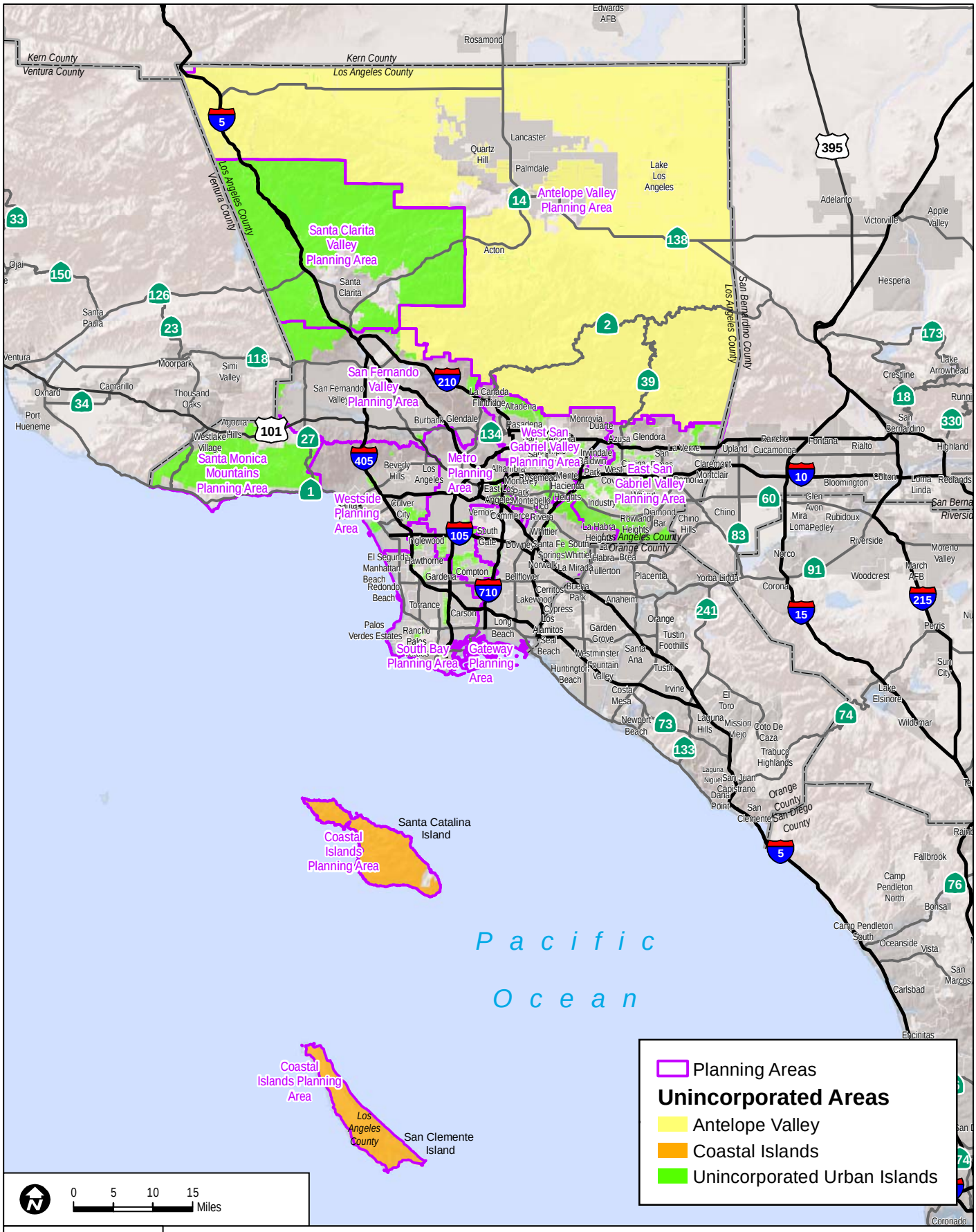

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SOURCE: Los Angeles County 2014

FIGURE 3-3

Planning Areas

Los Angeles County Renewable Energy Ordinance EIR

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SOURCE: http://www.sjsolar.com.au/node/5
http://www.huffingtonpost.com/2013/08/08/solar-power-us_n_3722600.html

FIGURE 3-4a

Photos of Small-Scale Solar Energy Systems

Los Angeles County Renewable Energy Ordinance EIR

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SOURCE: http://blog.recsolar.com/2014/03/how-solar-reduced-a-california-farms-electric-bill-by-75/

FIGURE 3-4b

Photos of Small-Scale Solar Energy Systems

Los Angeles County Renewable Energy Ordinance EIR

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Columbia Elementary
Lancaster, CA
Project Size: 315.5 kW

Lancaster City Hall
Lancaster, CA
Project Size: 595 kW

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8124-01

SOURCE: http://www.solarcity.com/sites/default/files/solarcity-casestudy-lancaster-city.pdf

FIGURE 3-4c

Photos of Small-Scale Solar Energy Systems

Los Angeles County Renewable Energy Ordinance EIR

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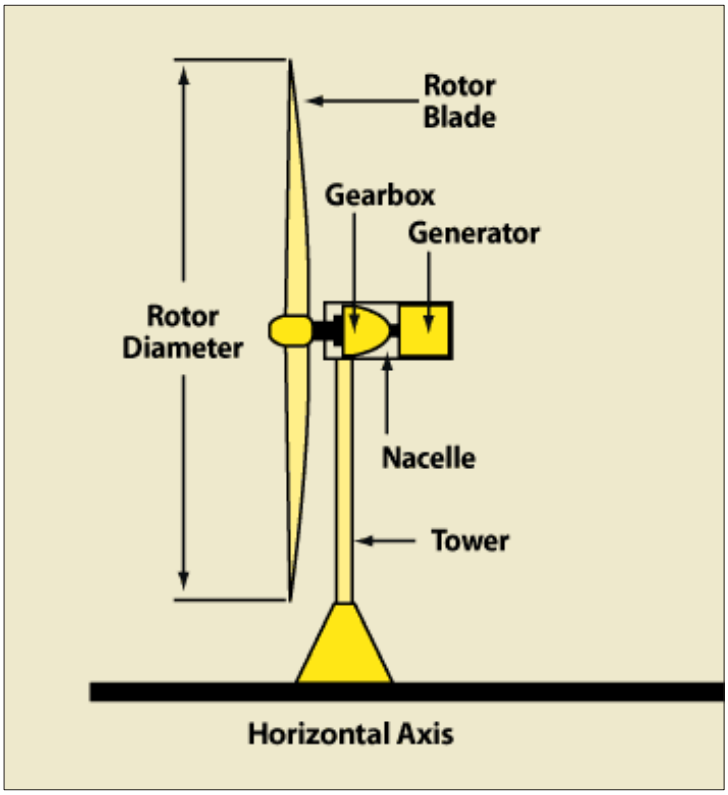

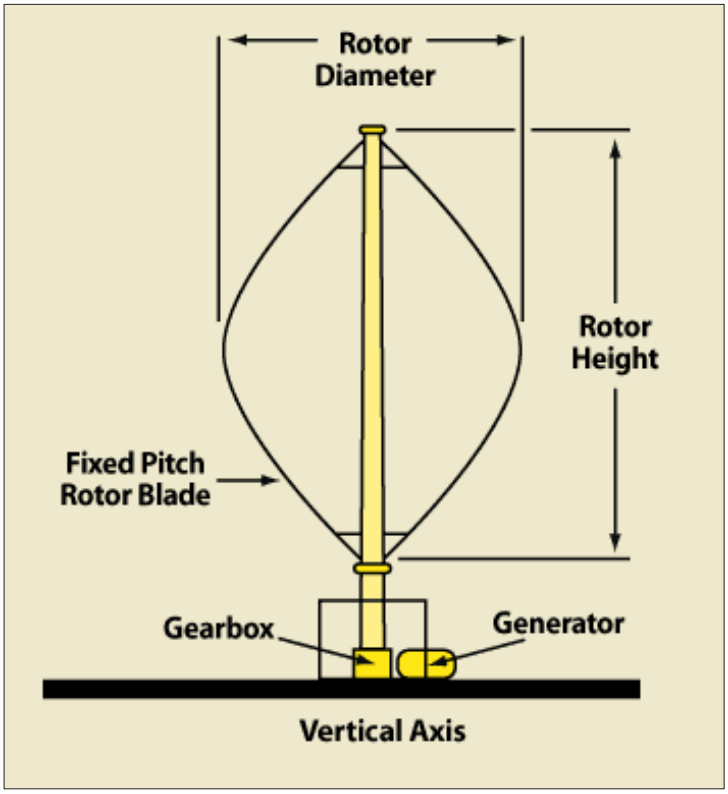

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FIGURE 3-5

Typical Horizontal-Axis and Vertical-Axis Wind Turbine

Los Angeles County Renewable Energy Ordinance EIR

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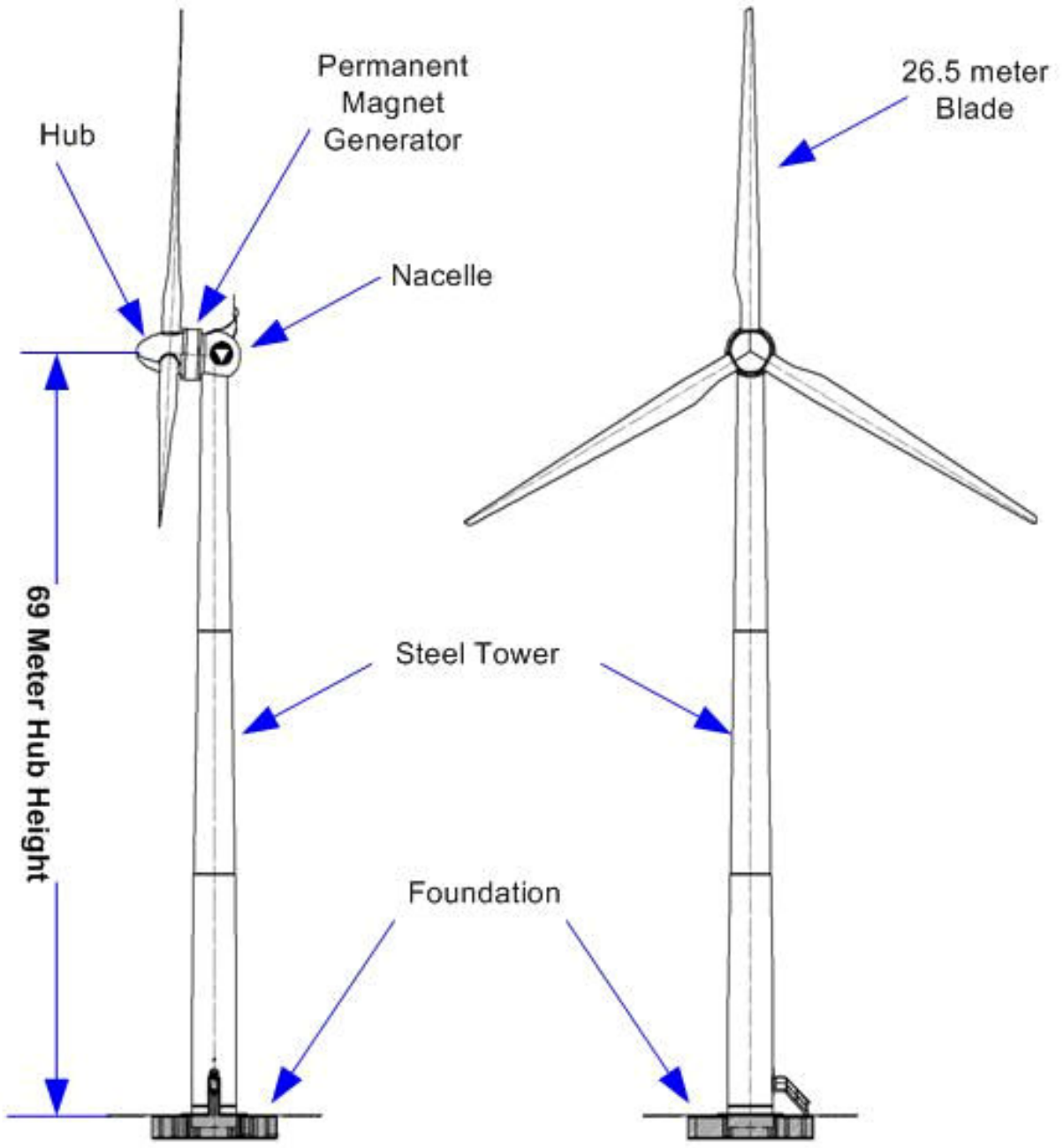

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FIGURE 3-6

Typical Schematic for a Wind Turbine

Los Angeles County Renewable Energy Ordinance EIR

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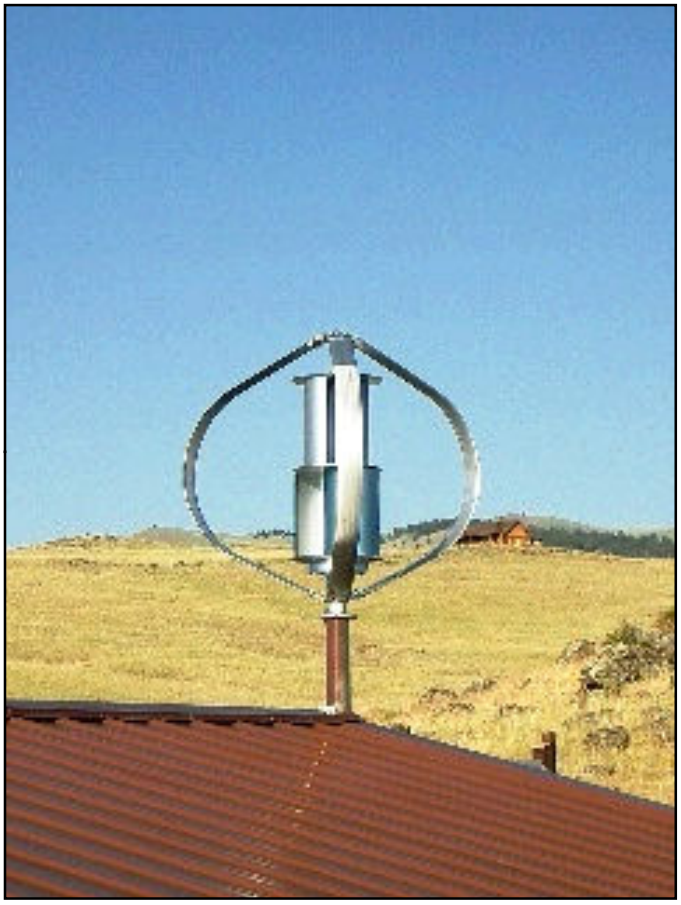

Roof-Mounted Vertical-Axis Turbine

Roof-Mounted Vertical-Axis Turbine

DUDEK

8124-01

SOURCE: www.planetarysystems.com

FIGURE 3-7a

Photo of Typical Small Wind Turbine System - Vertical Axis

Los Angeles County Renewable Energy Ordinance EIR

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Roof-Mounted Vertical-Axis Turbine

Vertical-Axis Three-Blade Turbine

DUDEK

8124-01

SOURCE: www.greenwindsolar.com; www.kedco.com

FIGURE 3-7b

Photo of Typical Small Wind Turbine System - Vertical Axis

Los Angeles County Renewable Energy Ordinance EIR

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Three-Blade Wind Turbine

Roof-Mounted Five-Blade Wind Turbine

DUDEK

8124-01

SOURCE: www.bergey.com; www.inhabitat.com

FIGURE 3-7c

Photo of Typical Small Wind Turbine System - Horizontal Axis

Los Angeles County Renewable Energy Ordinance EIR

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DUDEK

8124-01

SOURCE: Dudek, 5/5/2010, 9/21/2010

FIGURE 3-7d

Photos of Typical Large Wind Turbine Systems

Los Angeles County Renewable Energy Ordinance EIR

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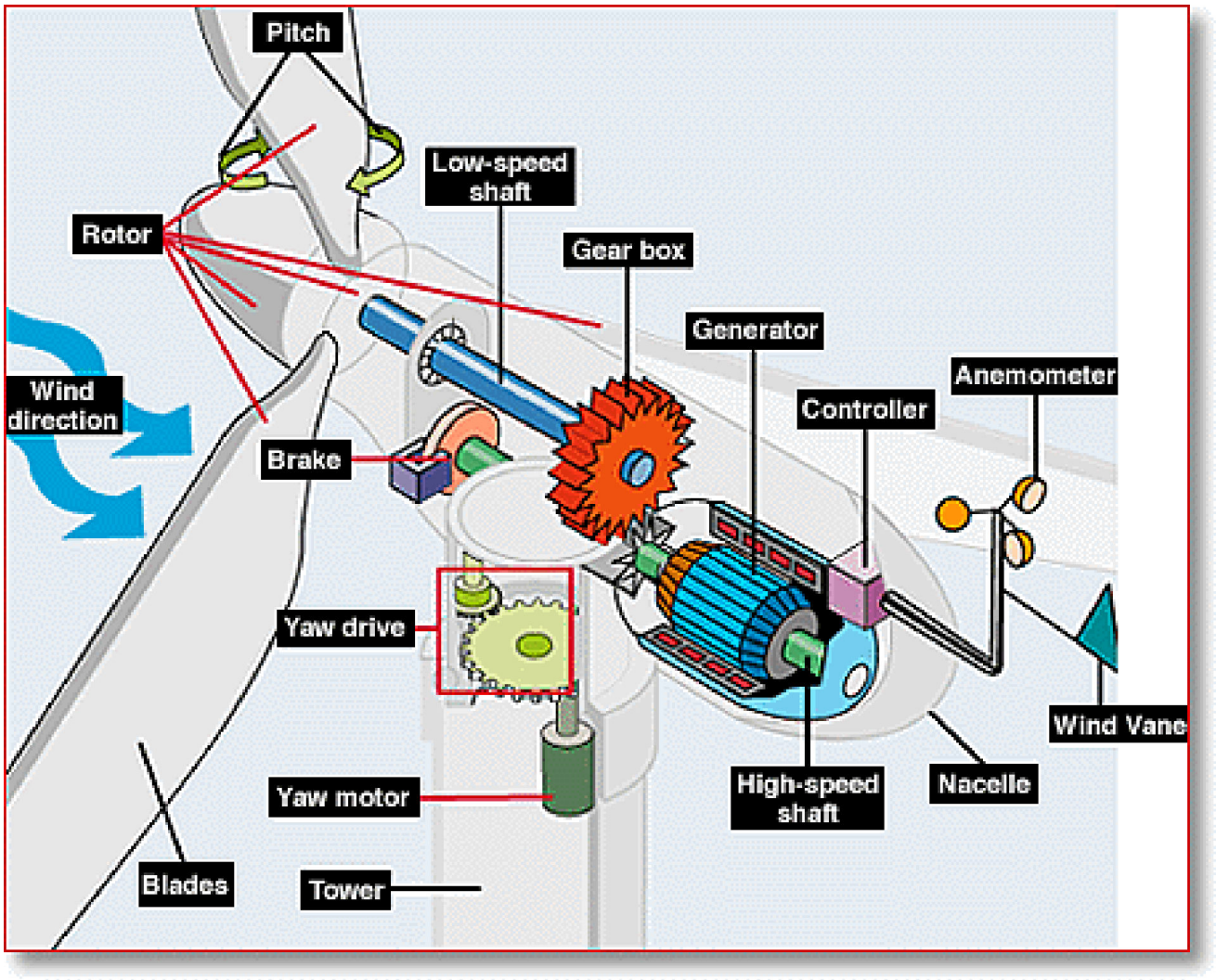

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8124-01

SOURCE: Dudek, 5/5/2010, 9/21/2010

FIGURE 3-8

Typical Wind Turbine Design

Los Angeles County Renewable Energy Ordinance EIR

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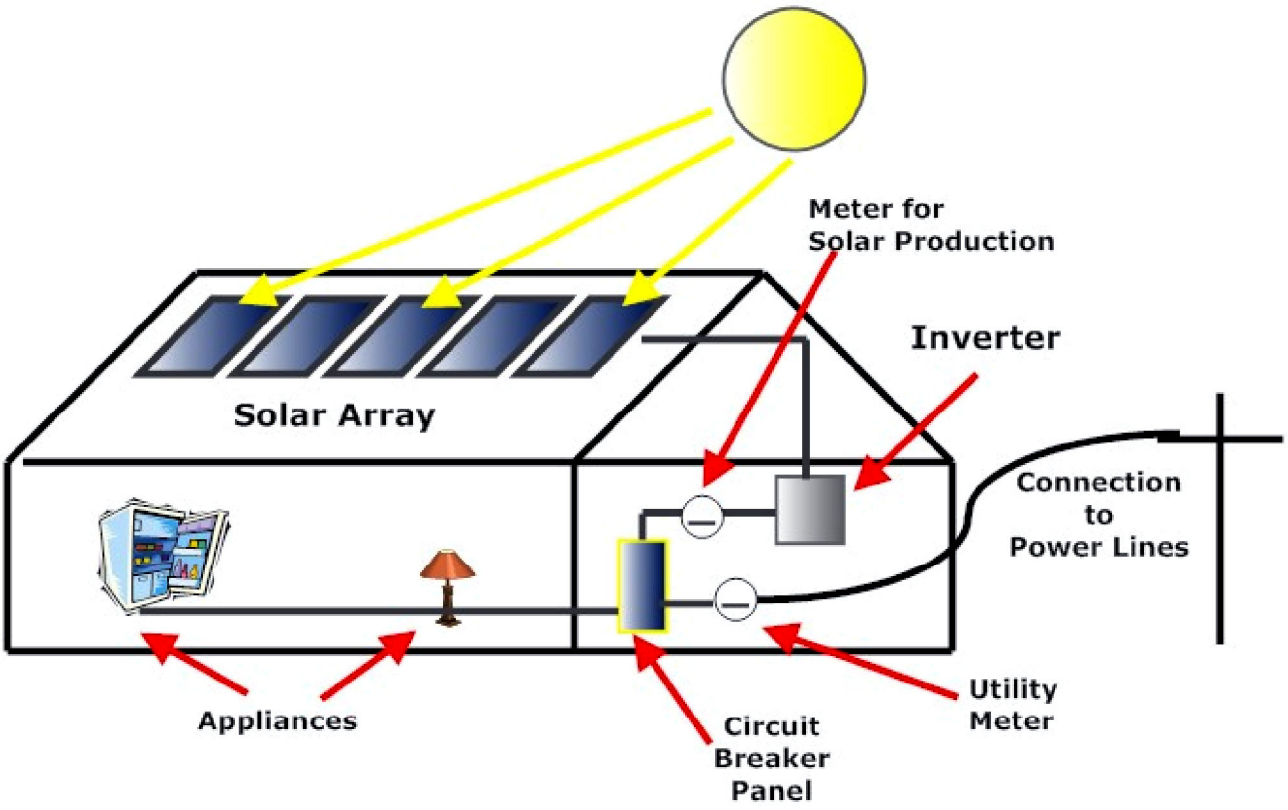
Meter for
Solar Production
Inverter
Solar Array
Connection
to
Power Lines
Appliances
Circuit
Breaker
Panel
Utility
Meter

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CHAPTER 4
ENVIRONMENTAL ANALYSIS

This chapter of the environmental impact report (EIR) provides discussions of effects on environmental issue topics as determined through analyzing the potential environmental effects associated with the proposed project. Each environmental issue area describes existing conditions, regulatory setting, analysis of project effects and determination of significance, significance of impact prior to mitigation, proposed mitigation measures, and level of significance after mitigation.

The 17 environmental issue areas addressed in Chapter 4 are as follows:

- Aesthetics (Section 4.1)
- Agriculture and Forestry Resources (Section 4.2)
- Air Quality (Section 4.3)
- Biological Resources (Section 4.4)
- Cultural Resources (Section 4.5)
- Geology and Soils (Section 4.6)
- Greenhouse Gas Emissions (Section 4.7)
- Hazards and Hazardous Materials (Section 4.8)
- Hydrology and Water Quality (Section 4.9)
- Land Use (Section 4.10)
- Mineral Resources (Section 4.11)
- Noise (Section 4.12)
- Population and Housing (Section 4.13)
- Public Services (Section 4.14)
- Recreation (Section 4.15)
- Traffic and Circulation (Section 4.16)
- Utilities and Service Systems (Section 4.17)

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4.1 AESTHETICS

This section describes the existing visual setting of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

4.1.1 Existing Conditions

The County of Los Angeles (County) encompasses desert, coastal, mountainous, and urban landscapes and is thus characterized by a diverse visual environment. Coastlines, cityscapes, suburban/wildland interface areas with contrasting visual characteristics, desert flatlands, and rugged mountain views are key categories of visual resources that can be experienced in the County.

The County is therefore a geographically diverse region with a multitude of geologic, topographic, and human-built features. For the purposes of this environmental impact report (EIR), the County is divided into three main geographical categories: the Antelope Valley, the Coastal Islands, and unincorporated urban islands (see Figure 3-2 in Chapter 3, Project Description, of this EIR). Each geographic region differs in its ambient visual environment, and within each region, there is a wide variety of scenic resources. The existing adopted General Plan does not identify specific scenic corridors or resources that are designated for protection by the County; however, it does recognize the importance of scenic resources (County of Los Angeles 1980). The ~~2014~~ 2015 Draft General Plan Update[1] recognizes scenic highways, corridors, hillsides, and ridgelines as valuable scenic resources but does not designate specific areas or views as scenic. Rather, it provides general guidelines for what may be characterized as a viewshed or a significant scenic resource. The ~~2014~~ 2015 Draft General Plan Update defines a scenic viewshed as a scenic vista from a given location, such as a highway, a park, a hiking trail, river/waterway, or a particular neighborhood. The boundaries of such viewsheds are defined by the field of view from the nearest ridgeline. Scenic viewsheds may include ridgelines, unique rock outcroppings, waterfalls, ocean views, or other usual or scenic landforms (County of Los Angeles ~~2014a~~2015). Using the definitions of scenic viewsheds and significant scenic resources identified by the County, individual communities within the unincorporated areas of the County may designate specific scenic viewsheds, routes, or resources. For example, scenic drives have been designated within the Antelope Valley in the ~~Draft~~ 2015 Antelope Valley Area Plan Update, and the plan sets forth policies for the protection of the viewsheds of these drives (County of Los Angeles ~~2014b~~2015b).

[1] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

An overview of the County's scenic resources and a summary of its ambient visual character are provided in this section.

Hillsides

As shown in Figure 4.1-1, Hillside Management Areas, the primary mountain ranges located within the County are the San Gabriel Mountains, Verdugo Hills, Santa Susana Mountains, Simi Hills, Santa Monica Mountains, Puente Hills, Chino Hills, and the Palo Verdes Hills. These hillside areas provide a visually appealing and diverse backdrop for many communities within the County and also provide a variety of environmental and recreational benefits.

The San Gabriel Mountains is the largest of these ranges and contains the tallest point in the County, Mount San Antonio. This mountain is commonly referred to as Mount Baldy and extends to just over 10,000 feet above mean sea level in elevation. Mount San Antonio can be experienced from many areas in the southeastern portion of the County.

The Santa Monica Mountains and the Palo Verdes Hills are coastal ranges that can be experienced from the shoreline and that offer vistas of the Pacific Ocean. The Puente Hills and the Chino Hills are relatively small inland ranges that are located near the borders of Los Angeles, Orange, and San Bernardino Counties. The Verdugo Mountains are also a relatively small inland mountain range located adjacent to the San Gabriel Mountains and represent a transitional area between the San Fernando Valley and the San Gabriel Valley.

The Santa Susana Mountains and the Simi Hills are located near the western border of the County, within the Santa Clarita Valley and San Fernando Valley Planning Areas. These mountain ranges, coupled with the San Gabriel Mountains, surround the Santa Clarita Valley and divide it from both the Los Angeles Basin and the Antelope Valley.

Certain types of development within many of the County's mountain ranges and hillside areas are subject to more stringent development review and regulations, as established in the Hillside Management Areas Ordinance. This ordinance is further described in Section 4.1.2, Relevant Plans, Policies, and Ordinances, and is being revised as part of the ~~2014~~ 2015 Draft General Plan Update process. A map contained the 2015 ~~2014~~ Draft General Plan Update shows the Hillside Management Areas that would go into effect at the time of General Plan adoption (see Figure 4.1-1). The Hillside Management Areas shown in this figure are defined as the areas of the unincorporated County that have slopes of 25% or greater. As such, while this map has not yet been adopted as part of the County General Plan, it shows the areas of the County that contain hillsides, ridgelines, and mountainous areas (County of Los Angeles ~~2014a~~2015).

Ridgelines

Many of the mountain ranges within the County contain ridgelines that have been identified as significant by the County. These ridgelines are depicted on Figure 4.1-1.

Although individual communities identify, designate, and regulate their respective ridgeline resources, the County provides a general definition of significant ridgelines to guide individual designations. Communities consider the following characteristics when identifying significant ridgelines:

- Topographic complexity
- Uniqueness of character and location
- Presence of cultural or historical landmarks
- Visual dominance of the skyline or viewshed, such as the height and elevation of a ridgeline
- Environmental significance to natural ecosystems, parks, and trail systems (County of Los Angeles ~~2014a~~2015)

Highways

The County contains multiple highways and routes that have been designated as scenic at the state or County level. Highways designated at the state level are listed and described in Table 4.1-1, State Scenic Highways System, and shown on Figure 4.1-2, State Scenic Highways; the three types of state designations are described following the table. Two key areas of the County that have routes specifically designated as scenic at the county level (the Santa Monica Mountains and the Antelope Valley) are also discussed following the table.

State Scenic Highways. Highways designated as scenic at the state level are part of the State Scenic Highways System and are designated as scenic as part of the Scenic Highway Program, which is administered by the California Department of Transportation (Caltrans).Official designation requires a legislative action and adoption of a corridor protection program by the local jurisdiction (in this case, the County) that is reviewed and approved by Caltrans at the district and state level. Highways may be designated as scenic by Caltrans depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view (Caltrans 2014).

State Eligible Highways. A highway is listed as eligible by Caltrans when Caltrans determines that it would be suitable for official designation as a state scenic highway, but the local governing body in which the highway is located has not yet applied to Caltrans for scenic highway approval. In order for an eligible highway to become an officially designated state scenic highway, the local

governing body must apply to Caltrans for scenic highway approval, must adopt a corridor protection program to provide a mechanism for preserving the scenic resources surrounding the highway, and must receive notification that the highway has been officially designated a scenic highway (Caltrans 2014).

County Scenic Highways. County scenic highways are County highways or roads that are listed in the State Scenic Highways System. County scenic highways are recognized by the state as possessing aesthetic qualities or statewide importance and are marked by the same California poppy signs with which the state scenic highways are marked (County of Los Angeles 2014~~c~~). County highways that have outstanding scenic qualities are considered eligible and do not require legislation to be officially listed. To receive official designation, counties must follow the same process required for official designation of state scenic highways described previously (Caltrans 2014).

Santa Monica Mountains Local Coastal Program. The Santa Monica Mountains Local Coastal Program designates approximately 15 roads within its boundaries as scenic routes, as follows:

- Mulholland Scenic Corridor and County Scenic Highway
- Pacific Coast Highway (SR-1)
- Malibu Canyon / Las Virgenes Road County Scenic Highway
- Kanan Dume Road
- Topanga Canyon Boulevard (SR-27)
- Old Topanga Canyon Road
- Saddle Peak Road/Schueren Road
- Piuma Road
- Encinal Canyon Road
- Tuna Canyon Road
- Rambla Pacifico Road
- Las Flores Canyon Road
- Corral Canyon Road
- Latigo Canyon Road
- Little Sycamore Canyon Road (Los Angeles County 2014d)

~~Draft~~ 2015 Antelope Valley Area Plan Update. The Antelope Valley Area Plan was considered for adoption by the County Board of Supervisors as of November 2014. It is anticipated that this document will be officially adopted and in effect by July 2015. ~~The Antelope Valley Area Plan is currently being prepared and was considered for adoption by the County Board of Supervisors as of November 2014.~~ In this plan, over 50 roads and highways throughout the Antelope Valley and the San Gabriel Mountains, such as a section of Interstate 5 (I-5), Lancaster Road, and 165th Street East, have been designated as scenic routes by the County (County of Los Angeles ~~2014b~~2015b).

Trails

The County supports a vast multi-use (equestrian, mountain biking, and hiking) trail system that allows trail users to explore natural, rural, and urban areas of the County. As shown on Figure 4.1-3, Regional Trail System, trails are generally concentrated within the County's mountain and desert areas. The Santa Monica Mountains, the unincorporated areas surrounding the City of Santa Clarita, and the Antelope Valley support a high concentration of County trails (County of Los Angeles ~~2014a~~2015, Figure 10.1). Additionally, the Pacific Crest Trail traverses the San Gabriel Mountains within the Angeles National Forest, extending generally west–east across the San Gabriel Mountains. The County of Los Angeles Trails Manual, adopted by the County Board of Supervisors in 2011, provides County staff and developers with guidelines and standards for the planning, design, development, and maintenance of County trails (County of Los Angeles ~~2014a~~2015, Chapter 10).

As shown on Figure 4.1-3, the high desert area to the south, east, and west of the Cities of Palmdale and Lancaster support a robust network of County trails. The high desert area that is generally to the north of Lancaster contains few County trails. Views of the high desert can be experienced from portions of the Pacific Crest Trail and from many of the trails located within the high desert and along the foothills of the Sierra Pelona and San Gabriel mountain ranges (County of Los Angeles ~~2014a~~2015, Figure 10.1).

Visual Character

Visual character is the objective composition of the visible landscape within a viewshed. Visual character is based on the organization of line, form, color, and texture within a viewshed and 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 viewer.

The County supports a diverse array of visual character and quality, ranging from highly developed urban lands; coastal views of the bluffs, shoreline, and Pacific Ocean; semi-rural views of suburbs with hillsides and ridgelines as a backdrop; natural views experienced to and within mountain regions; open agricultural fields; and desert areas, including rock formations, wildflower fields, and undeveloped desert habitat.

Much of the southern and central portions of the County support a primarily urban visual character, with the suburbs at the foothills of the San Gabriel, Verdugo, and Santa Monica Mountains experiencing both a suburban and mountainous visual character. The visual character of the northern portions of the County is dominated by the surrounding mountains and deserts.

Dark Skies

Dark skies are considered a natural aesthetic resource in the County. The more highly urbanized southern portions of the County are heavily impacted by nighttime lighting, while light pollution is less evident in the areas of the County that are less densely populated, particularly the Antelope Valley and many of the foothill communities that are segregated from the highly populated Los Angeles Basin.

Nighttime light is produced primarily by upward-pointing or upward-reflected light from outdoor lighting. This type of lighting illuminates the nighttime sky from below, just as the sun does from above in the daytime, and can be detrimental to observations of the nighttime sky. Nighttime light that spills outside its intended area can be annoying to neighbors and potentially harmful to motorists, cyclists, and pedestrians. Further, the health of natural wildlife can also be adversely affected by nighttime lighting. Nighttime lighting in excess of what is necessary for its purpose is called light pollution.

The County's Rural Outdoor Lighting District Ordinance, part of the Los Angeles (L.A.) County Code Title 22 (Zoning Code), was developed to effectively address and minimize the impact of light pollution in rural areas. Nearly all unincorporated areas in the Antelope Valley and many areas in the Santa Clarita Valley and Santa Monica Mountains Planning Areas are within the district.

4.1.2 Relevant Plans, Policies, and Ordinances

Federal

U.S. Forest Service National Scenic Byways Program

The U.S. Forest Service's National Scenic Byways Program indicates roadways of scenic importance passing through national forests. The portion of the County that is within U.S. Forest Service jurisdiction contains U.S. Forest Service-designated scenic byways.

Federal Aviation Administration

The Federal Aviation Administration (FAA) has strict notification policies and standards for marking and lighting structures to promote aviation safety. Title 14 of the Code of Federal Regulations, Part 77.9, states that any person/organization who proposes any of the following construction or alterations must file notice with the FAA:

- Any construction or alteration exceeding 200 feet above ground level
- Any construction or alteration:

  - Within 20,000 feet of a public use or military airport that exceeds a 100:1 surface from any point on the runway of each airport with its longest runway more than 3,200 feet
  - Within 10,000 feet of a public use or military airport that exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet
- Within 5,000 feet of a public use heliport that exceeds a 25:1 surface
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed the above noted standards
- When requested by the FAA
- Any construction or alteration located on a public use airport or heliport regardless of height or location (Code of Fed. Regs., Title 14, § 77.9)

Chapter 13 of FAA Advisory Circular 70/7460-1K (FAA 2007) is dedicated to marking and lighting wind turbine farms (wind turbine farms are defined as wind turbine developments containing three or more turbines of heights over 200 feet aboveground level). As listed in Chapter 13, general standards established for wind turbine farm lighting include the following:

- Not all wind turbine units within an installation or farm need to be lighted.
- Obstruction lights within a group of wind turbines should have unlighted separations or gaps of not more than ½ statute mile of the integrity of the group appearance is to be maintained. This is especially critical if the arrangement of objects is essentially linear.
- Nighttime wind turbine obstruction lighting should consist of the preferred FAA L-864 aviation red-colored flashing lights (20 to 40 flashes per minute is the standard flashing range for this lighting type).
- Daytime lighting of wind turbine farms is not required as long as the turbine structures are painted in a bright white color or light off-white color most often found on wind turbines.
- Light fixtures should be placed as high as possible on the turbine nacelle, so as to be visible from 360 degrees.
- (For wind turbine farms in a linear turbine configuration) place a light on each turbine positioned at each end of the line or string of turbines. In the event that the last segment is significantly short, push the lit turbine back toward the starting point to present a well-balanced string of lights. High concentrations of lights should be avoided.

State

State Scenic Highway Program

Caltrans administers the State Scenic Highway Program to preserve and protect scenic highway corridors from projects that would diminish the aesthetic value of lands adjacent to highways (Cal. Streets and Highways Code, § 260 et seq.). Scenic highway corridors are defined as the land generally adjacent to and visible to motorists from a scenic highway. The State Scenic Highway System includes a list of highways that either are eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code.

California Building Code

The California Building Code is Part 2 of Title 24 in the California Code of Regulations. It incorporates aspects of the International Building Code, some of which have been adapted to apply to California-specific conditions. It also includes additional California-specific standards that are not contained in the International Building Code.

Standards relevant to aesthetics and visual resources include standards for outdoor lighting that are intended to improve energy efficiency and to reduce light pollution and glare.

Local

County of Los Angeles General Plan

The existing adopted General Plan provides guidance for the preservation of visual resources. The existing adopted General Plan also includes area plans, community plans, and coastal land use plans that provide goals, policies, and recommendations to guide development of specific regions within the County. These subregional plans identify a variety of specific planning considerations that may include guidelines for protecting visual character and quality through development guidelines designed to minimize adverse aesthetic effects. The ~~2014~~ 2015 Draft General Plan Update (County of Los Angeles ~~2014a~~2015) and the existing adopted General Plan also include specific guidelines for protecting scenic resources.

Conservation and Open Space Element

The ~~2014~~ 2015 Draft General Plan Update's Conservation and Natural Resources Element includes (1) a list of state scenic highways and corridors, (2) policies to protect scenic resources, (3) policies to manage development in Hillside Management Areas, and (4) criteria that individual communities can use to identify and regulate their significant ridgelines. The ~~2014~~

2015 Draft General Plan Update's goals and policies for visual resources are provided in C/NR-13.1 through C/NR-13.10 of the Conservation and Natural Resources Element. Relevant policies include protection of scenic resources through land use regulations; protection of ridgelines from development that diminishes their scenic value; encouragement of grading that is compatible with existing terrain; protection of scenic and natural character in Hillside Management Areas; consideration of maintaining large contiguous open areas in Hillside Management Areas; and identification of significant ridgelines using criteria such as topographic complexity, uniqueness of character and location, visual dominance of the skyline, and environmental significance (County of Los Angeles ~~2014a~~2015).

~~Draft~~ 2015 Antelope Valley Area Plan Update

The 2014 Draft Antelope Valley Area Plan Update was considered for adoption by the County Board of Supervisors as of November 2014. The 2015 Antelope Valley Area Plan Update was published in June 2015 and is anticipated to go into effect in July 2015. This plan sets forth specific goals, policies, land use and zoning maps, and other planning instruments to guide future development and preservation activities in the Antelope Valley Planning Area. The boundaries of this Planning Area are shown on Figure 3-3. The Conservation and Open Space element of this plan contains policies related to scenic resources and dark night skies. Relevant policies that involve scenic resources include the identification and protection of natural landforms and vistas with significant visual value by designating them as Scenic Resource Areas; limitation of the amount of potential development in Scenic Resource Areas through appropriate land use designations with very low densities; restriction of development on buttes and designated significant ridgelines by requiring appropriate buffer zones; and ensuring that incompatible development is discouraged in designated scenic drives by developing and implementing development standards and guidelines for development within identified viewsheds of these routes. Relevant policies that involve dark skies include prohibiting continuous all-night outdoor lighting in rural areas unless required for land uses with unique security concerns and ensuring that outdoor lighting is provided at the lowest possible level while maintaining safety (County of Los Angeles ~~2014b~~2015b).

Los Angeles County Code – Rural Outdoor Lighting District Ordinance

The Rural Outdoor Lighting District Ordinance was adopted by the County in 2012 (County of Los Angeles 2012a). This ordinance establishes a Rural Outdoor Lighting District for areas of unincorporated Los Angeles County. The Rural Outdoor Lighting District encompasses the unincorporated areas of the Antelope Valley Planning Area, some areas of the Santa Clarita Valley Planning Area, the majority of the Santa Monica Mountains Planning Area, the San Gabriel Mountains, and Santa Catalina Island. The district also includes several small portions of

the unincorporated urban islands. Most of these areas are located adjacent to hillside areas, such as the San Gabriel Mountains (County of Los Angeles 2012b).

Within this district, the ordinance provides regulations to promote dark skies and limit light trespass. Regulations include the following:

- Outdoor lighting shall not cause light trespass.
- All outdoor lighting shall be fully shielded, meaning that the top of the fixture is covered and the sides are covered to a point where light is projected below a horizontal plane.
- Outdoor lighting fixtures are limited in height to 20 feet in residential, agricultural, open space, and watershed zones, are limited to 30 feet in commercial zones, and are limited to 35 in industrial zones.
- Outdoor lighting shall be turned off between the hours of 10:00 p.m. and sunrise. For safety and security lighting, light levels shall be reduced a minimum of 50% between 10:00 p.m. and sunrise, or motion sensors shall be used.
- Outdoor lighting for all new signs shall be mounted on top of the sign, fully shielded, and oriented downwards.
- Lighting types that are prohibited consist of drop-down lenses, mercury vapor lights, ultraviolet lights, searchlights, laser lights, or any other lighting that flashes, blinks, alternates, or moves (County of Los Angeles 2012a, 2012b).

Los Angeles County Code – Hillside Management Areas Ordinance

The Hillside Management Areas Ordinance, which is being updated as part of the ~~2014~~ 2015 Draft General Plan Update, is Section 22.56.215 of the L.A. County Code. Areas subject to this ordinance are defined in the ordinance as properties containing a natural slope of 25% or more that are located in a Hillside Management Area. Hillside Management Areas are defined by the existing adopted General Plan. The Hillside Management Area designation helps preserve the physical character and scenic value of hillsides. The currently adopted Hillside Management Areas Ordinance requires certain residential developments that exceed a density threshold to obtain a Conditional Use Permit (CUP) for compliance with hillside management provisions. The Hillside Management Areas Ordinance is being revised as part of the ~~2014~~ 2015 Draft General Plan Update. In the proposed revisions, the requirement for obtaining a CUP in the Hillside Management Areas would be triggered if proposed construction activities for a project would involve 15,000 or more cubic yards of cut/fill. The revised ordinance would also include a set of Hillside Management Area design guidelines. The ~~2014~~ 2015 Draft General Plan Update includes a new Hillside Management Areas map showing the areas that would be subject to the revised ordinance (see Figure 4.1-1) (County of Los Angeles ~~2014a~~2015; L.A. County Code, § 22.56.215).

Los Angeles County Code – Sign Ordinance

Part 10 (Signs) of Chapter 22.52 (General Provisions) of the L.A. County Code establishes regulations for the design, siting, and maintenance of signs. The key purposes of the sign regulations are to protect property values, aesthetics, and public health, safety, and general welfare of citizens while allowing businesses to operate successfully.

Los Angeles County Code – Los Angeles County Mills Act Program

The Los Angeles County Mills Act Program is Part 26 of Chapter 22.52 in the L.A. County Code. The purpose of the program is to provide an incentive for owners of qualified historic structures to preserve, restore, and rehabilitate the historic character of such properties, thereby providing a historical, architectural, social, artistic, and cultural benefit, as authorized by the provisions of Article 12 (commencing with § 50280) of Chapter 1, Part 1, Division 1 of Title 5 of the California Government Code, the provisions of which are commonly known as the Mills Act (L.A. County Code, §§ 22.52.2700–22.54.2820).

Los Angeles County Code – Oak Tree Ordinance

Contained in Part 16 (Oak Tree Permits) of Section 22.56 (Conditional Use Permits, Variances, Nonconforming Uses, Temporary Uses and Director's Review) of the Zoning Code, the Oak Tree Ordinance was established to recognize oak trees as significant aesthetic, historical, and ecological resources. The ordinance establishes permitting requirements for encroachment into or removal of protected oak trees (L.A. County Code, §§ 22.56.2050–22.56.2260).

County of Los Angeles Trails Manual

The County Board of Supervisors adopted the County of Los Angeles Trails Manual in May 2011. The Trails Manual provides County staff and developers with guidelines and standards for planning, design, development, and maintenance of County trails.

4.1.3 Thresholds of Significance

The significance criteria used to evaluate the impacts to aesthetics from the proposed project are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

A. Have a substantial adverse effect on a scenic vista.

B. Be visible from or obstruct views from a regional riding or hiking trail.

C. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

D. Substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features.

E. Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area.

4.1.4 Impacts Analysis

Criterion A: Would the project have a substantial adverse effect on a scenic vista?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or California Environmental Quality Act (CEQA) review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones. ~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

As stated in Section 4.1.1, each geographic category differs in its ambient visual environment, and within each category, there is a wide variety of scenic resources. The existing adopted General Plan does not identify specific scenic corridors or resources that are designated for protection by the County; however, it does recognize the importance of scenic resources. The ~~2014~~ 2015 Draft General Plan Update recognizes scenic highways, corridors, hillsides, and ridgelines as valuable scenic resources but does not designate specific areas or views as scenic. Rather, it provides general guidelines for what may be characterized as a viewshed or a significant scenic resource. The ~~2014~~ 2015 Draft General Plan Update defines a scenic viewshed as a scenic vista from a given location, such as a highway, park, hiking trail, river/waterway, or particular neighborhood. The boundaries of such viewsheds are defined by the field of view from the nearest ridgeline. Scenic viewsheds may include ridgelines, unique rock outcroppings, waterfalls,

ocean views, or other usual or scenic landforms (County of Los Angeles 2015a~~2014a~~). Additionally, community or area plans within the unincorporated County may designate specific routes, areas, or viewsheds as being scenic. For example, the ~~Draft~~ 2015 Antelope Valley Area Plan Update designates over 50 roadways and highways within the Antelope Valley and the San Gabriel Mountains as scenic drives (County of Los Angeles ~~2014b~~2015b).

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.

Small-scale and utility-scale structure-mounted solar energy systems would be mounted on existing structures, such as buildings, carports, and parking structures (see Figures 3-4a through 3-4c in Chapter 3, Project Description). Where views of mountains or the ocean can be experienced over the tops of existing structures from public vantage points, the addition of solar energy equipment to the tops of such existing structures could alter, block, or otherwise compromise the view of scenic vistas that can be observed over the tops of structures from public viewpoints. As required by the proposed Zoning Code amendments (see Table 3-2, Environmental Design Considerations), the combined height of a structure and a structure-mounted solar energy system would not be allowed to exceed the height limit of the zone in which the project is developed by more than 5 feet. Nonetheless, these future projects would introduce a new element that would not be subject to environmental or design review. Solar panels would display largely horizontal forms and lines, and the introduction of these features would potentially substantially obstruct, interrupt, or detract from existing available views. Furthermore, accessory equipment associated with such systems could contribute new visual elements in the vicinity of future projects that would potentially obstruct or degrade scenic vistas.

Although small-scale ground-mounted solar energy systems may not block a scenic vista in the way a structure-mounted system might, such facilities would have the potential to affect a scenic resource that contributes to a scenic vista, as they could be built on a hillside or within a desertscape that can be observed from a public viewpoints. The addition of solar panels and the effects of vegetation removal and ground disturbance would be apparent; solar panels would potentially break the existing horizon line and at times, the "new" horizon line would appear as a serrated edge that contrasts with the existing flowing line created by the merging of vegetated land and sky. The proposed Hillside Management Areas Ordinance would protect hillsides from being compromised by the development of ground-mounted projects involving cut and fill of 15,000 cubic yards of material or more. As such, many small-scale projects would not fall subject to the proposed Hillside Management Areas Ordinance. However, for projects involving larger amounts of cut and fill, equating to a greater effect on the scenic value of the hillside, the regulations of the proposed Hillside Management Areas Ordinance would apply and the project

would be required to obtain a Hillside Management Area CUP, triggering further CEQA review. ~~upon approval of the proposed amendments to the Zoning Code~~. Nonetheless, these projects would typically not be subject to discretionary or design review under the proposed project.

Small-scale ground-mounted solar energy systems would be subject to project-specific CEQA review in the O-S and W zones and utility-scale structure-mounted solar energy facilities would be prohibited in these zones. The W zone encompasses the majority of the San Gabriel Mountains, and the O-S zone encompasses smaller areas primarily scattered throughout the Santa Monica Mountains, the San Gabriel Mountains, and the Antelope Valley (see Figure 4.10-1, Existing Zoning Map, in Section 4.10, Land Use). Because these zones allow fewer types of development than the County's Commercial, Residential, Agricultural, and Manufacturing zones, the O-S and W zones contain a concentration of scenic resources, particularly hillsides, ridgelines, desertscapes, and other undeveloped areas. As such, requiring small-scale ground-mounted solar energy systems to undergo further CEQA review in these particular zones ensures that the individual projects proposed in the O-S and W zones would be individually evaluated for their impact to scenic vistas. Because CEQA requires the identification of potential feasible means of avoiding or substantially lessening significant adverse impacts, small-scale ground-mounted solar energy systems proposed in areas designated O-S or W would be required to minimize, avoid, and/or mitigate impacts to scenic vistas. Furthermore, utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones, and projects that do not meet the definition of a "small residential rooftop solar energy system" as defined in Government Code Section 65850.5(j)(3) would require a Minor CUP in R-1 zones.

Nonetheless, in areas where these projects would be permitted without discretionary or design review (in most zones), small-scale solar energy systems and utility-scale structure-mounted solar energy facilities developed pursuant to the proposed project could have a **potentially significant** effect on scenic vistas (**Impact AES-1**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems, Utility-Scale Structure-Mounted Wind Energy Facilities, and Temporary MET Towers

Small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities would have the potential to be located within the viewshed of a scenic vista

and could also result in taller vertical elements near or within the viewshed of a scenic vista. However, Part 15 of the existing Zoning Code contains a number of regulations that would continue to apply to small-scale wind energy systems and temporary MET towers that would reduce potential effects to scenic vistas. Under the proposed project, these provisions would remain in place.

Small-scale wind energy systems are limited in size to a capacity of 50 kilowatts (kW) or less~~.~~, and a parcel must be at least 0.5 acres for a wind turbine to be allowed. ~~The proposed project would allow up to two small wind turbines per 5 gross acres. The proposed Zoning Code amendments contain a number of provisions that would address visual effects of structure-mounted and ground-mounted small-scale wind energy systems and temporary MET towers. As specified in Table 3-2, t~~ The colors used in the construction materials or finished surface of both small-scale wind energy systems and temporary MET towers are required to be muted and visually compatible with the surrounding development ~~or environment~~. This requirement would ensure that temporary MET towers and small-scale wind energy systems remain consistent with the color scheme of its surroundings, thereby reducing the visibility of such systems and reducing their effect on scenic vistas. Minimum setback requirements ensure separation of the small-scale wind energy system or temporary MET tower from a property line or road right-of-way. The required setback is equivalent to the size of the facility. Maximum tower height requirements would limit the height of small-scale wind energy systems and temporary MET towers. (Projects located on lots or parcels less than one acre in size must not exceed 35 feet above grade; projects located on lots or parcels between one acre and two acres in size must not exceed a height of 65 feet above grade; and, projects located on lots or parcels two acres or greater in size must not exceed 85 feet above grade.)

The Zoning Code requires the highest point of a small-scale wind energy system to be located at least 25 vertical feet below the top of any adjacent major ridgeline and 100 horizontal feet from any adjacent major ridgeline. (A major ridgeline is any ridgeline that surrounds or visually dominates the landscape; see Appendix A for more details). Additionally, no small-scale wind energy system can be placed or constructed in such a way that it silhouettes against the skyline above any major ridgeline when viewed from any designated major, secondary, or limited secondary highway; from any designated scenic highway; or from any significantly inhabited area, as determined by the Director of Regional Planning. Within the Coastal Zone, the placement of projects would be required to comply with the applicable Local Coastal Plan. Local Coastal Plans are prepared in accordance with the California Coastal Act and therefore have requirements for protecting coastal views.

Under the proposed project, the visual protection standards described above would be applied to utility-scale structure-mounted wind energy systems. Additionally, the proposed project would limit the height of utility-scale structure-mounted wind energy facilities to 5 feet above the height

requirements of the zone in which the project is located. The proposed project would also require such facilities to be setback from the perimeter of the roof by 3 feet on residential buildings and by 4 feet on non-residential or mixed-use building. These provisions would reduce the potential for such structure-mounted facilities to obstruct or compromise a scenic vista.

Zoning prohibitions would also serve to protect areas of the County that typically have a high concentration of scenic vistas. Under the proposed project, utility-scale structure-mounted wind energy facilities would be prohibited from the O-S and W zones, and small-scale wind energy systems and temporary MET towers are prohibited (and would continue to be prohibited) from the W zone~~ of. Furthermore, the requirements for setbacks, height, and separation of wind turbines, as listed in Table 3-2 and in Table 4.1-2, Setback Requirements for Temporary MET Towers and Small-Scale Wind Energy Systems, would restrict the density, height, and location of development for such systems, thereby reducing their potential to adversely affect or block scenic vistas. Furthermore, the amendments to the Zoning Code would require the highest point of such a turbine to be located at least 50 vertical feet from a significant ridgeline identified in the general plan, in an applicable area or community plan, or within an applicable community standards district. The amendments to the Zoning Code would prohibit a small-scale wind energy system from obstructing public views of the ocean unless specific provisions have been made in a local coastal program or long-range development plan. Such projects~~ Small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities would ~~also~~ require discretionary approval through the Minor CUP permit process and would therefore be subject to separate project-level environmental review in accordance with CEQA. However, it is not known at this time where future wind energy systems or facilities will be located and as there is no guarantee on a project-specific level that mitigation measures will reduce impacts to a level below significant, ~~the proposed project~~future projects implemented in accordance with Part 15 of the Zoning Code may result in **potentially significant** impacts related to scenic vistas (**Impact AES-2**).

Utility-Scale Ground-Mounted Renewable Energy Facilities

Utility-scale ground-mounted renewable energy facilities would have the potential to be located within the viewshed of a scenic vista and could also result in taller vertical elements near or within the viewshed of a scenic vista. The proposed Zoning Code amendments include a variety of provisions to reduce the effect of utility-scale ground-mounted facilities on visual resources. These provisions are listed in Table 3-2, ~~Table 4.1-2,~~ and Table 4.1-3, Setback Requirements for Utility-Scale Ground-Mounted Wind Energy Facilities, and include required setbacks, undergrounding of transmission lines, and height requirements for wind turbines. Additionally, the proposed Zoning Code amendments require the highest point of a utility-scale ground-mounted solar~~renewable~~ energy facility 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. The proposed Zoning Code amendments would require the highest point of a utility-scale ground-mounted wind energy facility to be located at least 50 feet vertical feet and 300 horizontal feet from a significant ridgeline identified in the general plan, in an applicable area or community plan, or within an applicable community standards district. The proposed Zoning Code amendments would also require slope setbacks for utility-scale ground-mounted wind energy facilities in the vicinity of Hillside Management Areas. While such provisions would reduce the effect of utility-scale ground-mounted renewable energy facilities on scenic vistas, the potential size, height, and location of such facilities in visually rich areas, such as the desert or hillside areas, could lead to potentially significant effects to scenic vistas. The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy projects to be evaluated under CEQA and would require implementation of measures to minimize impacts to scenic vistas, as necessary. Examples of mitigation measures include provisions for added setbacks, construction fencing, and vegetation screening. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level below significant, future utility-scale ground-mounted renewable energy facilities may result in **potentially significant** impacts related to adversely affecting scenic vistas (**Impact AES-3**).

Criterion B: Would the project be visible from or obstruct views from a regional riding or hiking trail?

The proposed project entails amending the Zoning Code 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, the proposed project would allow for the development of renewable energy systems 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; see Figure 4.1-3.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a

project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Small-scale and utility-scale structure-mounted solar energy systems would be mounted on existing structures, such as buildings, carports, and parking structures; see Figures 3-4a through 3-4c in Chapter 3. Such systems could be visible from trails. As required by the proposed Zoning Code amendments (see Table 3-2), the combined height of a structure and a structure-mounted system would not be allowed to exceed the height limit of the zone in which the project is developed by more than 5 feet. Nonetheless, these future projects would introduce a new element that would not be subject to environmental or design review. Solar panels would display largely horizontal forms and lines, and the introduction of these features could potentially substantially obstruct, interrupt, or detract from existing available views from trails.

Small-scale ground-mounted solar energy systems may also be visible from trails. The addition of solar panels and the effects of vegetation removal and ground disturbance would be apparent; solar panels would potentially break the existing horizon line and at times, the new horizon line would appear as a serrated edge that contrasts with the existing flowing line created by the merging of vegetated land and sky. The proposed Hillside Management Areas Ordinance would protect hillsides from being compromised by the development of ground-mounted projects of certain sizes.

Small-scale ground-mounted solar energy systems would be subject to project-specific CEQA review in the O-S and W zones and utility-scale structure-mounted facilities would be prohibited in these zones. The Pacific Crest Trail primarily extends through lands within the W zone, while a variety of proposed and existing County trails extend through lands designated as O-S in the Santa Monica Mountains, the Puente Hills, and the Antelope Valley; see Figure 4.1-3 and Figure 4.10-1. Requiring small-scale ground-mounted solar energy systems to undergo further CEQA review in these particular zones ensures that projects proposed in the O-S and W zones would be individually evaluated for their impact to views that can be observed from regional trails extending through these zones. Because CEQA requires the identification of potential feasible means of avoiding or substantially lessening significant adverse impacts, small-scale ground-mounted solar energy systems proposed in areas designated O-S or W would be required to

minimize, avoid, and/or mitigate impacts to views from regional trails. Furthermore, utility-scale structure-mounted facilities would be prohibited in O-S and W zones, and projects that do not meet the definition of a "small residential rooftop solar energy system" as defined in Government Code Section 65850.5(j)(3) would require a Minor CUP in R-1 zones.

Nonetheless, where these projects would be permitted without discretionary or design review (in most zones), small-scale and utility-scale structure-mounted solar energy systems developed pursuant to the proposed project could have a **potentially significant** effect on public trails (**Impact AES-4**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems, Utility-Scale Structure-Mounted Wind Energy Facilities, and Temporary MET Towers

Small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities would have the potential to be located within the viewshed of a public trail and could result in taller vertical elements near or within the viewshed of a public trail. However, Part 15 of the existing Zoning Code contains a number of regulations that would continue to apply to small-scale wind energy systems and temporary MET towers that would reduce potential effects to views from trails. Under the proposed project, these provisions would remain in place.

Small-scale wind energy systems are limited in size to a capacity of 50 kW or less, and a parcel must be at least 0.5 acres for a wind turbine to be allowed. The colors used in the construction materials or finished surface of both small-scale wind energy systems and temporary MET towers are required to be muted and visually compatible with the surrounding development. This requirement would ensure that temporary MET towers and small-scale wind energy systems remain consistent with the color scheme of its surroundings, thereby reducing the visibility of such systems and reducing their effect on views observed from public trails. Minimum setback requirements ensure separation of the turbine or temporary MET tower from a property line or road right-of-way. The required setback would be equivalent to the size of the facility. Maximum tower height requirements would limit the height of small-scale wind energy facilities and temporary MET towers. (Projects located on lots or parcels less than one acre in size must not exceed 35 feet above grade; projects located on lots or parcels between one acre and two acres in

size must not exceed a height of 65 feet above grade; and, projects located on lots or parcels two acres or greater in size must not exceed 85 feet above grade.)

The Zoning Code requires the highest point of a small-scale wind energy system to be located at least 25 vertical feet below the top of any adjacent major ridgeline and 100 horizontal feet from any adjacent major ridgeline. (A major ridgeline is any ridgeline that surrounds or visually dominates the landscape; see Appendix A for more details). Additionally, no small-scale wind energy system can be placed or constructed in such a way that it silhouettes against the skyline above any major ridgeline when viewed from any designated major, secondary, or limited secondary highway; from any designated scenic highway; or from any significantly inhabited area, as determined by the Director of Regional Planning. Within the Coastal Zone, the placement of projects would be required to comply with the applicable Local Coastal Plan. Local Coastal Plans are prepared in accordance with the California Coastal Act and therefore have requirements for protecting coastal views.

Under the proposed project, the visual protection standards described above would be applied to utility-scale structure-mounted wind energy systems. Additionally, the proposed Zoning Code amendments would limit the height of utility-scale structure-mounted wind energy facilities to 5 feet above the height requirements of the zone in which the project is located. The proposed project would also require such facilities to be setback from the perimeter of the roof by 3 feet on residential buildings and by 4 feet on non-residential or mixed-use building. These provisions would reduce the effects of such projects in the event that they are visible from trails.

Zoning prohibitions would also serve to protect areas of the County that typically have a high concentration of trails and/or are within the viewshed of trails. Under the current Zoning Code, small-scale wind energy systems and temporary MET towers are allowed upon discretionary approval in the O-S zone and are prohibited from the W zone. These regulations would remain in place under the proposed project. However, utility-scale structure-mounted wind energy facilities would be prohibited from both the O-S and W zones as a result of the Zoning Code amendments. Because the O-S and W zones have a higher concentration of trails and scenic resources compared to other zones, these amendments would reduce potential impacts to views observed from public trails in these zones.

~~as a result of the Zoning Code amendmentsBecause the er and scenic resources compared to other zones; these amendments would reduce potential impacts to views observed from public trails in these zones.Small scale wind energy systems are limited in size to a capacity of 50 kW or less.The proposed project would allow up to two small wind turbines per 5 gross acres. The proposed Zoning Code amendments contain a number of provisions that would address visual effects of small-scale structure-mounted and ground-mounted wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers. As specified in Table 3-2, the colors~~

~~used in the construction materials or finished surface of both small-scale wind energy systems and temporary MET towers are required to be muted and visually compatible with the surrounding development or environment. This requirement would ensure that temporary MET towers and small-scale wind energy systems remain consistent with the color scheme of their surroundings, thereby reducing the visibility of such systems and reducing their effect on views from public trails. Furthermore, the requirements for setbacks, height, and separation of wind turbines, as listed in Table 3-2 and Table 4.1-2, would restrict the density, height, and location of development for such systems, thereby reducing their potential to adversely affect or block views from public trails. Furthermore, the proposed amendments to the Zoning Code would require the highest point of such a turbine to be located at least 50 vertical feet from a significant ridgeline identified in the general plan, in an applicable area or community plan, or within an applicable community standards district. The amendments to the Zoning Code would require that the combined height of a structure and a structure mounted wind energy system or facility (small scale or utility scale) shall not exceed the height limit of the zone by more than 5 feet; see Appendix A to this EIR, which provides the text of the proposed Zoning Code amendments. This requirement would limit the height of the wind turbines mounted to structures, thus reducing the effects of such projects on the views observed from public trails. The proposed project also prohibits such projects (small scale wind energy systems, utility scale structure mounted wind energy facilities, and temporary MET towers) from being developed in the O-S and W zones. Such projects~~ Small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities would also require discretionary approval through the Minor CUP permit process and would therefore be subject to separate project-level environmental review in accordance with CEQA. However, it is not known at this time where future wind energy systems or facilities will be located and as there is no guarantee on a project-specific level that mitigation measures will reduce impacts to a level below significant, the proposed project may result in **potentially significant** impacts related to public trails (**Impact AES-5**).

Utility-Scale Ground-Mounted Renewable Energy Facilities

Utility-scale ground-mounted renewable energy facilities would have the potential to be located within the viewshed of a public trail and could result in taller vertical elements near or within the viewshed of a public trail. The proposed Zoning Code amendments include a variety of provisions to reduce the effect of utility-scale ground-mounted facilities on visual resources. These provisions are listed in Table 3-2 and include required setbacks, undergrounding of transmission lines, and height requirements for wind turbines. Additionally, the proposed Zoning Code amendments require the highest point of a utility-scale ground-mounted solar ~~renewable~~ energy facility 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. The proposed Zoning Code amendments would

require the highest point of a utility-scale ground-mounted wind energy facility to be located at least 50 feet vertical feet and 300 horizontal feet from a significant ridgeline identified in the general plan, in an applicable area or community plan, or within an applicable community standards district. The proposed Zoning Code amendments would also require slope setbacks for utility-scale ground-mounted wind energy facilities in the vicinity of Hillside Management Areas. Although such provisions would reduce the effect of utility-scale ground-mounted facilities on scenic vistas, the potential size, height, and location of such facilities in visually rich areas, such as the desert or hillside areas, could lead to potentially significant effects to scenic vistas. The CUP discretionary review process would require all future utility-scale ground-mounted facilities to be evaluated under CEQA and to implement measures to minimize impacts to public trails, as necessary. Examples of mitigation measures include provisions for added setbacks, construction fencing, and vegetation screening. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level below significant, future utility-scale ground-mounted renewable energy facilities may result in **potentially significant** impacts related to public trails (**Impact AES-6**).

Criterion C: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

As shown on Figure 4.1-2 and in Table 4.1-1, there are three highways that have been designated by Caltrans as scenic: Angeles Crest Highway (SR-2), from 2.7 miles north of I-210 to the San Bernardino County Line; Mulholland Highway (two sections), from SR-1 to Kanan Dume Road and from west of Cornell Road to east of Las Virgenes Road; and Malibu Canyon–Las Virgenes Highway, from SR-1 to Lost Hills Road. SR-2 is the only state scenic highway within the County; Mulholland Highway and Malibu Canyon–Las Virgenes Highway are considered officially designated county scenic highways. As indicated in Table 4.1-1, there are also seven eligible scenic highways in the County.

The majority of the lands adjacent to and surrounding the portion of SR-2 that has been designated as a state scenic highway are within the W zone. There are two small parcels along SR-2 that are not within the W zone; one is designated as R-R-1 (Resort and Recreation) and the other is designated as A-1-2 (Light Agricultural) (Los Angeles County GIS-NET3).

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a

project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones ~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Within the O-S and W zone, only small-scale solar energy systems are allowed. Mulholland Highway and Malibu Canyon–Las Virgenes Highway extends mostly through agriculturally zoned areas and through areas zoned as O-S (Los Angeles County GIS-NET3). Therefore, there is the potential for the development of small-scale solar energy systems adjacent to a state scenic highway or in the line of sight of travelers along a state scenic highway. Small-scale ground-mounted systems would require a discretionary permit and project-specific CEQA review within the O-S and W zones.

As required by the proposed Zoning Code amendments (see Table 3-2), the combined height of a structure and a structure-mounted solar energy system would not be allowed to exceed the height limit of the zone in which the project is developed by more than 5 feet. Nonetheless, these future projects would introduce a new element that would not be subject to environmental or design review. Solar panels would display largely horizontal forms and lines, and the introduction of these features would potentially substantially obstruct, interrupt, or detract from existing available views from a state scenic highway; impacts would be **potentially significant** (**Impact AES-7**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems, Utility-Scale Structure-Mounted Wind Energy Facilities, and Temporary MET Towers

Small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities would have the potential to be located within the viewshed of a state scenic highway and could also result in taller vertical elements near or within the viewshed of a state

scenic highway. However, Part 15 of the existing Zoning Code contains a number of regulations that would continue to apply to small-scale wind energy systems and temporary MET towers that would reduce potential effects to state scenic highways. Under the proposed project, these provisions would remain in place.

Small-scale wind energy systems are limited in size to a capacity of 50 kW or less, and a parcel must be at least 0.5 acres for a wind turbine to be allowed. ~~The proposed project would allow up to two small wind turbines per 5 gross acres. The proposed Zoning Code amendments contain a number of provisions that would address visual effects of small-scale structure-mounted and ground-mounted wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers. As specified in Table 3-2, the~~The colors used in the construction materials or finished surface of both small-scale wind energy systems and temporary MET towers are required to be muted and visually compatible with the surrounding development or environment. This requirement would ensure that temporary MET towers and small-scale wind energy systems remain consistent with the color scheme of their surroundings, thereby reducing the visibility of such systems and reducing their effect on views from public trails. ~~Furthermore, the requirements for setbacks, height, and separation of wind turbines, as listed in Table 3-2 and Table 4.1-2, would restrict the density, height, and location of development for such systems, thereby~~ Height limits and ridgeline protection measures would also reduce the~~reducing their~~ potential for such projects to adversely affect or block views from state scenic highways.

Zoning prohibitions would also protect the area of the County through which a state scenic highway traverses. As described above, the majority of the lands that surround the portion of SR-2 that is designated as a state scenic highway are in the W zone. Under the current Zoning Code, small-scale wind energy systems and temporary MET towers are prohibited from the W zone. These regulations would remain in place under the proposed project. Utility-scale structure-mounted wind energy facilities would be prohibited from both the O-S and W zones as a result of the- proposed Zoning Code amendments, thereby limiting the potential for such facilities to be located near a state scenic highway. ~~Lastly, these systems would not be permitted in O-S and W zones. Such projects~~ Small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities would also require discretionary approval through the Minor CUP permit process and would therefore be subject to separate project-level environmental review in accordance with CEQA. Because these systems would not be permitted in ~~O-S and~~ W zone~~s~~ and given the restrictions set forth in Part 15 of the Zoning Code, their potential to impact state scenic highways is **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

The proposed Zoning Code amendments include a variety of provisions to reduce the effect of utility-scale ground-mounted facilities on visual resources. These provisions, listed in Table 3-2

and Table 4.1-3, include required setbacks, undergrounding of transmission lines, and height requirements for wind turbines. Additionally, the proposed Zoning Code amendments require the highest point of a utility-scale ground-mounted solar~~renewable~~ energy facility 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. The proposed Zoning Code amendments would require the highest point of a utility-scale ground-mounted wind energy facility to be located at least 50 feet vertical feet and 300 horizontal feet from a significant ridgeline identified in the general plan, in an applicable area or community plan, or within an applicable community standards district. The proposed Zoning Code amendments would also require slope setbacks for utility-scale ground-mounted wind energy facilities in the vicinity of Hillside Management Areas. Although such provisions would reduce the effect of utility-scale ground-mounted facilities on scenic ~~vistas~~highways, the potential size, height, and location of such facilities in visually rich areas, such as the desert or hillside areas, could lead to potentially significant effects to state scenic highways. Although these facilities would not be allowed in O-S and W zones, the size of these facilities could enable them to be viewed from state scenic highways. The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and to implement measures to minimize impacts to state scenic highways as necessary. Examples of mitigation measures include provisions for added setbacks, construction fencing, and vegetation screening. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level below significant, future utility-scale ground-mounted renewable energy facilities may result in **potentially significant** impacts because they could substantially obstruct, interrupt, or detract from existing available views from a state scenic highway (**Impact AES-8**).

Criterion D: Would the project substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time~~

~~the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

In accordance with the requirements of the proposed project, the combined height of the structure and the small-scale solar energy system would not be permitted to exceed the height limit of the zone in which the project is being developed by more than 5 feet. With this provision in place, the structures on which future projects are developed would not be significantly increased in height or bulk. Nonetheless, these future projects would introduce a new element that would not be subject to environmental or design review. Solar panels would display largely horizontal forms and lines, and the introduction of these features could potentially substantially obstruct, interrupt, or detract from existing available views; see Figures 3-4a through 3-4c in Chapter 3. Small-scale ground-mounted solar energy systems could require site clearing and could involve the addition of photovoltaic (PV) panels to a site, resulting in the potential for substantial alteration of the visual character of that site. Such projects would require project-level CEQA review in the O-S and W zones through the discretionary review process. Because CEQA requires the identification of potential feasible means of avoiding or substantially lessening significant adverse impacts, small-scale ground-mounted solar energy systems proposed in areas designated O-S or W would be required to minimize, avoid, and/or mitigate impacts involving visual character of the site.

Nonetheless, where these projects would be permitted without discretionary or design review (in most zones), small-scale solar energy systems and utility-scale structure-mounted solar energy facilities developed pursuant to the proposed project would have the potential to substantially degrade the existing visual character or quality of future project sites and their surroundings. Thus, impacts would be **potentially significant** (**Impact AES-9**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems, Utility-Scale Structure-Mounted Wind Energy Facilities, and Temporary MET Towers

Small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities would have the potential to degrade the visual character of a site due to the height and bulk of the wind tower(s). However, Part 15 of the existing Zoning Code contains a number of regulations that would continue to apply to small-scale wind energy systems and temporary MET towers that would reduce potential effects to scenic vistas. Under the proposed project, these provisions would remain in place.

Small-scale wind energy systems are limited in size to a capacity of 50 kilowatts (kW) or less, and a parcel must be at least 0.5 acres for a wind turbine to be allowed. The colors used in the construction materials or finished surface of both small-scale wind energy systems and temporary MET towers are required to be muted and visually compatible with the surrounding development. This requirement would ensure that temporary MET towers and small-scale wind energy systems remain consistent with the color scheme of its surroundings, thereby reducing the visibility of such systems and reducing their effect on the visual quality of a site. Minimum setback requirements ensure separation of the turbine or temporary MET tower from a property line or road right-of-way. The required setback would be equivalent to the size of the facility. Maximum tower height requirements would limit the height of small-scale wind energy facilities and temporary MET towers. (Projects located on lots or parcels less than one acre in size must not exceed 35 feet above grade; projects located on lots or parcels between one acre and two acres in size must not exceed a height of 65 feet above grade; and, projects located on lots or parcels two acres or greater in size must not exceed 85 feet above grade.)

The Zoning Code requires the highest point of a small-scale wind energy system to be located at least 25 vertical feet below the top of any adjacent major ridgeline and 100 horizontal feet from any adjacent major ridgeline. (A major ridgeline is any ridgeline that surrounds or visually dominates the landscape; see Appendix A for more details). Additionally, no small-scale wind energy system can be placed or constructed in such a way that it silhouettes against the skyline above any major ridgeline when viewed from any designated major, secondary, or limited secondary highway; from any designated scenic highway; or from any significantly inhabited area, as determined by the Director of Regional Planning. Within the Coastal Zone, the placement of projects would be required to comply with the applicable Local Coastal Plan. Local Coastal Plans are prepared in accordance with the California Coastal Act and therefore have requirements for protecting coastal views.

Under the proposed project, the visual protection standards described above would be applied to utility-scale structure-mounted wind energy systems. Additionally, the proposed project would limit the height of utility-scale structure-mounted wind energy facilities to 5 feet above the height

requirements of the zone in which the project is located. The proposed project would also require such facilities to be setback from the perimeter of the roof by 3 feet on residential buildings and by 4 feet on non-residential or mixed-use building. These provisions would reduce potential for such facilities to affect the visual quality of a site.

Zoning prohibitions would also serve to protect areas of the County that typically have sites with high visual quality. Under the current Zoning Code, small-scale wind energy systems and temporary MET towers are allowed upon discretionary approval in the O-S zone and are prohibited from the W zone. These regulations would remain in place under the proposed project. Utility-scale structure-mounted wind energy facilities would be prohibited from both the O-S and W zones as a result of the Zoning Code amendments, thereby reducing the potential for visual impacts in these zones. ~~Small-scale wind energy systems are limited in size to a capacity of 50 kW or less. The proposed project would allow up to two small wind turbines per 5 gross acres. The proposed Zoning Code amendments contain a number of provisions that would address visual effects of small-scale structure-mounted and ground-mounted wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers. As specified in Table 3-2, the colors used in the construction materials or finished surface of both small-scale wind energy systems and temporary MET towers are required to be muted and visually compatible with the surrounding development or environment. This requirement would ensure that temporary MET towers and small-scale wind energy systems remain consistent with the color scheme of their surroundings, thereby reducing the visibility of such systems and reducing their effect on scenic vistas. Furthermore, the requirements for setbacks, height, and separation of wind turbines, as listed in Table 3-2, would restrict the density, height, and location of development for such systems, thereby reducing their potential to adversely affect or block scenic vistas. Furthermore, the proposed Zoning Code amendments would require the highest point of such a turbine to be located at least 50 vertical feet from a significant ridgeline identified in the general plan, in an applicable area or community plan, or within an applicable community standards district. The Zoning Code amendments would prohibit a small-scale wind energy system from obstructing public views of the ocean unless specific provisions have been made in a local coastal program or long-range development plan. The proposed Zoning Code amendments require that the combined height of a structure and a structure-mounted wind energy system or facility (small scale or utility scale) shall not exceed the height limit of the zone by more than 5 feet. This requirement would limit the height of the wind turbines mounted to structures, thus reducing the effects of such projects on the visual character or quality of future project sites and their surroundings. The proposed project also prohibits such projects (small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers) from being developed in the O-S and W zones.~~

~~Such projects~~ Small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities would also require discretionary approval through the Minor CUP permit process and would therefore be subject to separate project-level environmental review in accordance with CEQA. However, it is not known at this time where future wind energy systems or facilities will be located and as there is no guarantee on a project-specific level that mitigation measures will reduce impacts to a level below significant, the proposed project may result in **potentially significant** impacts related to visual character (**Impact AES-10**).

Utility-Scale Ground-Mounted Renewable Energy Facilities

Future utility-scale ground-mounted renewable energy facilities could require site clearing and could involve the addition of PV panels or wind turbines to a site, resulting in the potential for substantial alteration of the visual character of that site. Therefore, the development of future utility-scale ground-mounted renewable energy facilities would have the potential to substantially degrade the existing visual character or quality of future project sites and their surroundings; impacts would be **potentially significant** (**Impact AES-11**).

Criterion E: Would the project create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?

Glare

Glare is a continuous or periodic intense light that is greater than the luminance (light intensity) to which the eyes are adapted and would have the potential to cause annoyance, discomfort, or visual impairment, and can be a nuisance or hazard. Glare commonly occurs when an object is significantly brighter in contrast to the rest of the viewshed, such as light reflecting off an expanse of glass in a commercial or industrial development. Potentially reflective exterior building materials can affect motorists, cyclists, pedestrians, or other persons within sight of the project depending on the position of the sun, outdoor lighting, and/or building materials.

Light

Daytime lighting would not result in a substantial new source of light or result in light pollution or light trespass. However, excessive nighttime lighting would have the potential to result in light pollution, also called skyglow, which is the haze of light that surrounds highly populated areas and is the result of brightening of the night sky from both artificial (outdoor) and natural (atmospheric and celestial) light. Skyglow reduces people's ability to see stars and other features of the nighttime sky. Excessive lighting can also have the potential to have an adverse impact on wildlife.

Shadow Flicker

Shadow flicker is commonly defined as alternating changes in light intensity at a given stationary location. In order for shadow flicker from wind turbines 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. Refer to Section 4.8, Hazards and Hazardous Materials, for further information.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Shadows

Small-scale solar energy systems, whether structure mounted or ground mounted, are typically not tall enough to generate substantial shadows that would affect nearby sensitive receptors. Due to the limited height of solar energy systems, future small-scale solar energy systems would not generate shadows to the extent that day or nighttime views would be adversely affected. Utility-

scale structure-mounted solar facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include but are not limited to solar collector arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. As a result, these facilities are not anticipated to require construction of substations, new electrical infrastructure or transmission lines, or new operations and maintenance buildings. Therefore, these facilities would not generate substantial shadows to the extent that views would be affected. Furthermore, the proposed Zoning Code amendments require all accessory structures associated with utility-scale structure-mounted facilities to meet all applicable development standards of the zone. Due to this requirement and due to the minimal nature of the shadows that would potentially be generated by future projects, impacts resulting from small-scale solar energy systems and utility-scale structure-mounted solar energy facilities developed pursuant to the proposed project would be **less than significant**.

Light

The County is located in a mostly urbanized context, which means that the existing levels of lighting and light pollution are already relatively high, particularly in the unincorporated urban islands. Some rural and open space areas, particularly the Santa Monica Mountains, San Gabriel Mountains, and Antelope Valley, do not have existing high levels of light and light pollution.

The proposed project does not have any lighting restrictions for small-scale solar energy systems; however, it is not anticipated that structure-mounted solar energy systems would involve any night lighting. Therefore, small-scale structure-mounted solar energy systems developed pursuant to the proposed project would have a **less than significant** effect with respect to nighttime lighting.

Small-scale ground-mounted solar energy systems would not generally include night lighting; however,, depending on the location of such future projects, night lighting could be required for

the safety and security of the site. The nighttime lighting used for such facilities within the urbanized areas of the County (namely, the unincorporated urban islands) would not contribute a substantial, noticeable addition to the existing level of light and light pollution in such areas. However, in areas that are less affected by existing nighttime lighting, such as the Antelope Valley and the Santa Monica Mountains Planning Area, nighttime lighting for safety and security purposes could produce a noticeable effect. The areas of the County that are less affected by existing nighttime lighting are protected under the Rural Outdoor Lighting District Ordinance. As described in Section 4.1.2, the district includes the Antelope Valley, the Santa Monica Mountains Planning Area, portions of the Santa Clarita Valley Planning Area, and small sections of the unincorporated urban islands, most of which are situated in hillside areas with less urban development. As summarized in Section 4.1.2, the Rural Outdoor Lighting District Ordinance limits the height, brightness, and trespass of nighttime lighting, including safety and security lighting. It also requires safety and security lighting to be reduced by 50% between 10:00 p.m. and sunrise or to be connected to a motion sensor so the lights go on only when necessary. Additionally, all lighting is required to be fully shielded (County of Los Angeles 2012a). Compliance with this ordinance is required before building permits are issued. Compliance with the provisions of the Rural Outdoor Lighting District Ordinance would reduce potential effects of small-scale ground-mounted solar energy systems and utility-scale structure-mounted solar energy facilities to a **less than significant** level.

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 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 project, 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 would reduce potential effects of small-scale ground-mounted solar energy systems and utility-scale structure-mounted solar energy facilities to a **less than significant** level.

Glare

The proposed project requires ~~all~~ utility-scale structure-mounted solar energy facilities to be designed and located in such a way to minimize reflective glare toward any inhabited structure on adjacent properties as well as adjacent street rights-of-way as a condition of approval for such projects requiring a Minor CUP.

Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would 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. 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. Due to the potential for PV panels to produce glare, future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities could produce glare that would have a **potentially significant** effect on daytime views in the areas near future project sites (**Impact AES-12**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems, Utility-Scale Structure-Mounted Wind Energy Facilities, and Temporary MET Towers

The County is located in a mostly urbanized context, which means that the existing levels of lighting and light pollution are already relatively high, particularly in the unincorporated urban islands. Some rural and open space areas, particularly the Santa Monica Mountains, San Gabriel Mountains, and Antelope Valley, do not have existing high levels of light and light pollution. The proposed project prohibits lighting on temporary MET towers, small-scale wind energy systems, or utility-scale structure-mounted wind energy facilities except for a safety light to meet FAA standards, to meet other aviation agency requirements, or as imposed by the County. Compliance with the provisions of the proposed Zoning Code amendments would reduce potential effects of small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities to **less than significant**.

<u>Shadows</u>

Future small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers allowed under the proposed project 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. ~~For example, under the proposed project, a maximum of two wind towers would be permitted for each 5 gross acres of land. Additionally, wind towers must be separated from each other per the separation requirements~~

~~of the proposed Zoning Code amendments. Furthermore, i~~In accordance with the proposed amendments, the combined height of a structure and utility-scale structure-mounted wind ~~tower~~ facility would not exceed the height limit of the zone by more than 5 feet, thereby reducing the height of structure-mounted turbines and limiting their capacity to produce shadows. ~~Due to the separation requirements and lack of massing of small-scale wind energy systems~~For these reasons, utility-scale structure-mounted wind energy facilities, and temporary MET towers, these systems and facilities would not generate shadows to the extent that daytime or nighttime views would be adversely affected, and impacts would be **less than significant**.

Light

The County is located in a mostly urbanized context, which means that the existing levels of lighting and light pollution are already relatively high, particularly in the unincorporated urban islands. Some rural and open space areas, particularly the Santa Monica Mountains, San Gabriel Mountains, and Antelope Valley, do not have existing high levels of light and light pollution. The proposed Zoning Code amendments prohibit lighting on temporary MET towers, small-scale wind energy systems, or utility-scale structure-mounted wind energy facilities except for a safety light to meet FAA standards, to meet other aviation agency requirements, or as required by the County.

~~Night lighting for safe and secure access to entryways and operation and maintenance buildings for all future projects under the proposed Zoning Code amendments, 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 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 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 project, 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 the Zoning Code provisions would reduce potential effects of small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities to a **less than significant** level.

In addition, there are specific FAA lighting requirements for wind turbine projects as described in Section 4.1.2, Relevant Plans, Policies, and Ordinances.

Glare

Small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers are not likely to result in glare impacts, although lighting associated with these systems and facilities may result in glare. The lighting of such systems and facilities is limited by the provisions of the proposed Zoning Code amendments, which state that no lights are permitted on a wind tower except for a safety light that may be required by an aviation agency. Compliance with the requirements of the proposed project would reduce potential impacts of small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers to a **less than significant** level.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Shadows

As described previously, neither solar energy systems or facilities nor wind energy systems or facilities would be anticipated to result in substantial shadows that would affect nearby sensitive receptors. Future wind energy towers allowed under the proposed project may generate shadows due to their height. However, the massing of wind turbines is broken up, which creates gaps through which light may pass, thereby minimizing impacts to nearby sensitive receptors. While future projects would be subject to further review under CEQA through the discretionary review process, utility-scale ground-mounted facilities would not be expected to generate shadows to the extent that daytime or nighttime views would be adversely affected, and impacts are anticipated to be **less than significant**.

Light

The proposed project limits any nighttime lighting provided at future facilities to safety and security lighting. As specified in Table 3-2, such lighting is required by the proposed Zoning Code amendments to be shielded and directed downward to avoid light trespass and must include motion sensors for entry lighting to the on-site equipment structures and buildings and light-sensor or motion-sensor lighting for the main facility access gates, operations and maintenance building doorways, and any parking areas for the operation and maintenance buildings. Although future projects would be subject to further review under CEQA, utility-scale ground-mounted solar energy facilities would not be expected to generate light to the extent that nighttime views would be adversely affected, and impacts are anticipated to be **less than significant**.

The proposed Zoning Code amendments prohibit lighting on wind towers except for a safety light to meet FAA standards, to meet other aviation agency requirements, or as required by the County. Although the proposed Zoning Code amendments contain numerous requirements to reduce any contributions that future utility-scale ground-mounted renewable energy facilities

would have to light pollution, the required FAA safety light for wind turbines could produce nighttime lighting that could be visible to residences in the general area due to a lack of existing nighttime lighting in areas that would generally be developed with utility-scale wind energy facilities. Lighting may also be visible to recreationists or motorists in the general area. Also, the height of wind turbines and the repetitive flashing of FAA-required obstruction lighting may result in a strong, constant source of highly visible light, and nighttime views for area residents may be affected. Therefore, the long-term effects on nighttime views resulting from future utility-scale ground-mounted wind energy facilities could be **potentially significant** (**Impact AES-13**).

Glare

The proposed project requires that all utility-scale ground-mounted solar energy facilities be designed and located in such a way to minimize reflective glare toward any inhabited structure on adjacent properties as well as adjacent street rights-of-way. Utility-scale ground-mounted solar projects would have the potential to generate glare, primarily produced by the solar panels, which reflect a small portion of the sun's image back to the viewer. For discretionary solar projects, such as a utility-scale ground-mounted solar facility, the County typically includes the following mitigation measure: "glass used to cover the flat-plate PV panels shall be high-transmission, low-iron tempered glass and have a reflectance value of 8% or less." Although future projects would be subject to further review under CEQA through the discretionary review process, compliance with the County's measure for PV panels with low reflectively would be expected to reduce potential glare effects of utility-scale ground-mounted solar energy facilities to **less than significant**.

Wind energy facilities are less likely to result in glare impacts, although lighting associated with these facilities may result in glare. The lighting of such facilities is limited by the provisions of the proposed Zoning Code amendments, which state that no lights are permitted on a wind tower except for a safety light that may be required by an aviation agency or by the County. Compliance with the requirements of the proposed Zoning Code amendments would reduce potential glare-related impacts of utility-scale ground-mounted wind energy facilities to a **less than significant** level.

4.1.5 Level of Significance Before Mitigation

Without mitigation, the following impacts would be potentially significant:

Impact AES-1 Impacts related to the effects of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities on scenic vistas.

Impact AES-2 Impacts related to the effects of small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers on scenic vistas.

Impact AES-3 Impacts related to the effects of utility-scale ground-mounted renewable energy facilities on scenic vistas.

Impact AES-4 Impacts related to the visual effects of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities on public trails.

Impact AES-5 Impacts related to the visual effects of small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers on public trails.

Impact AES-6 Impacts related to the visual effects of utility-scale ground-mounted renewable energy facilities on public trails.

Impact AES-7 Impacts related to small-scale solar energy systems and utility-scale structure-mounted solar energy facilities that would potentially substantially obstruct, interrupt, or detract from existing available views from a state scenic highway.

Impact AES-8 Impacts related to utility-scale ground-mounted renewable energy facilities that would potentially substantially obstruct, interrupt, or detract from existing available views from a state scenic highway.

Impact AES-9 Impacts related to small-scale solar energy systems and utility-scale structure-mounted solar energy facilities that would potentially substantially degrade the existing visual character or quality of future project sites and their surroundings.

Impact AES-10 Impacts related to small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers that would potentially substantially degrade the existing visual character or quality of future project sites and their surroundings.

Impact AES-11 Impacts related to utility-scale ground-mounted renewable energy facilities that would potentially substantially degrade the existing visual character or quality of future project sites and their surroundings.

Impact AES-12 Impacts related to small-scale solar energy systems and utility-scale structure-mounted solar energy facilities that could produce glare that would affect daytime views in the areas nearby future project sites.

Impact AES-13 Impacts related to utility-scale ground-mounted wind energy facilities that could affect nighttime views due to lighting.

4.1.6 Mitigation Measures

There are no feasible mitigation measures to reduce impacts.

4.1.7 Level of Significance After Mitigation

Impacts AES-1 through **AES-13** would remain **potentially significant and unavoidable**.

Table 4.1-1
State Scenic Highways System

Highway/Route	Description of Location
State Scenic Highways	
SR-2 (Angeles Crest Highway)	From 2.7 miles north of I-210 at La Canada to the San Bernardino County Line
State Eligible Highways	
SR-1	SR-1 from the Orange County line to SR-19 (Lakewood Boulevard) in the City of Long Beach
SR-118	From the western City of Los Angeles boundary to the Ventura County line
SR-67	From the Orange County Line to SR-60 in the City of Diamond Bar
SR-1 from SR-187 (Venice Boulevard)	City of Los Angeles to the Ventura County line
SR-27 (Topanga Canyon Boulevard)	From SR-1 to the City of Los Angeles city limit
I-210 / I-5	From SR-134 in the City of Pasadena, through the City of Santa Clarita to the Ventura County line
U.S. 101	From Topanga Canyon Boulevard to the Ventura County line
County Scenic Highways	
Mulholland Highway	From SR-1 to Kanan Dume Road and west of Cornell Road to east of Las Virgenes Road
Malibu Canyon–Las Virgenes Highway	FromSR-1 to Lost Hills Road

Sources: Caltrans 2013a, 2013b.
Notes: SR- = State Route; I- = Interstate; U.S. = U.S. Highway.

Table 4.1-2
Setback Requirements for Temporary MET Towers and Small-Scale Wind Energy Systems

Setback From	Minimum Distance
~~On-site residence or habitable structure~~	~~1.5 × system height~~
Public road, highway, or railway	As required by the Department of Public Works to meet sight distance and minimum setback requirements from traveled lands
Railway	~~1.5 × system height~~As required by applicable railroad safety standards.
~~Aboveground transmission line, public access easement, or public trail~~	~~1.25 × system height~~
Property line or road right-of-way	~~1.25 × system height~~ 1 x system height
~~Buildings other than a residential structure~~	~~1 × system height~~

Table 4.1-2
Setback Requirements for Temporary MET Towers and Small-Scale Wind Energy Systems

Setback From	Minimum Distance
Trees	As required by the Fire Department
~~Scenic drives and scenic routes as identified in the general plan or in an applicable area or community plan~~	~~1,000 feet~~

Table 4.1-3
Setback Requirements for Utility-Scale Ground-Mounted Wind Energy Facilities

Setback From	Minimum Distance
On-site or off-site residence or habitable structure	2 × facility height
Public road or highway	As required by the Department of Public Works to meet sight distance and minimum setback requirements from traveled lands
Aboveground transmission line, public access easement, or public trail	2 × facility height
Property line	2 × facility height
On-site or off-site buildings other than a residential structure	1 × facility height
Trees	As required by the Fire Department
Scenic drives, scenic highways, and scenic routes as identified in the general plan or in an applicable area or community plan or applicable community standards district	2 × facility height
Railway	2 × facility height

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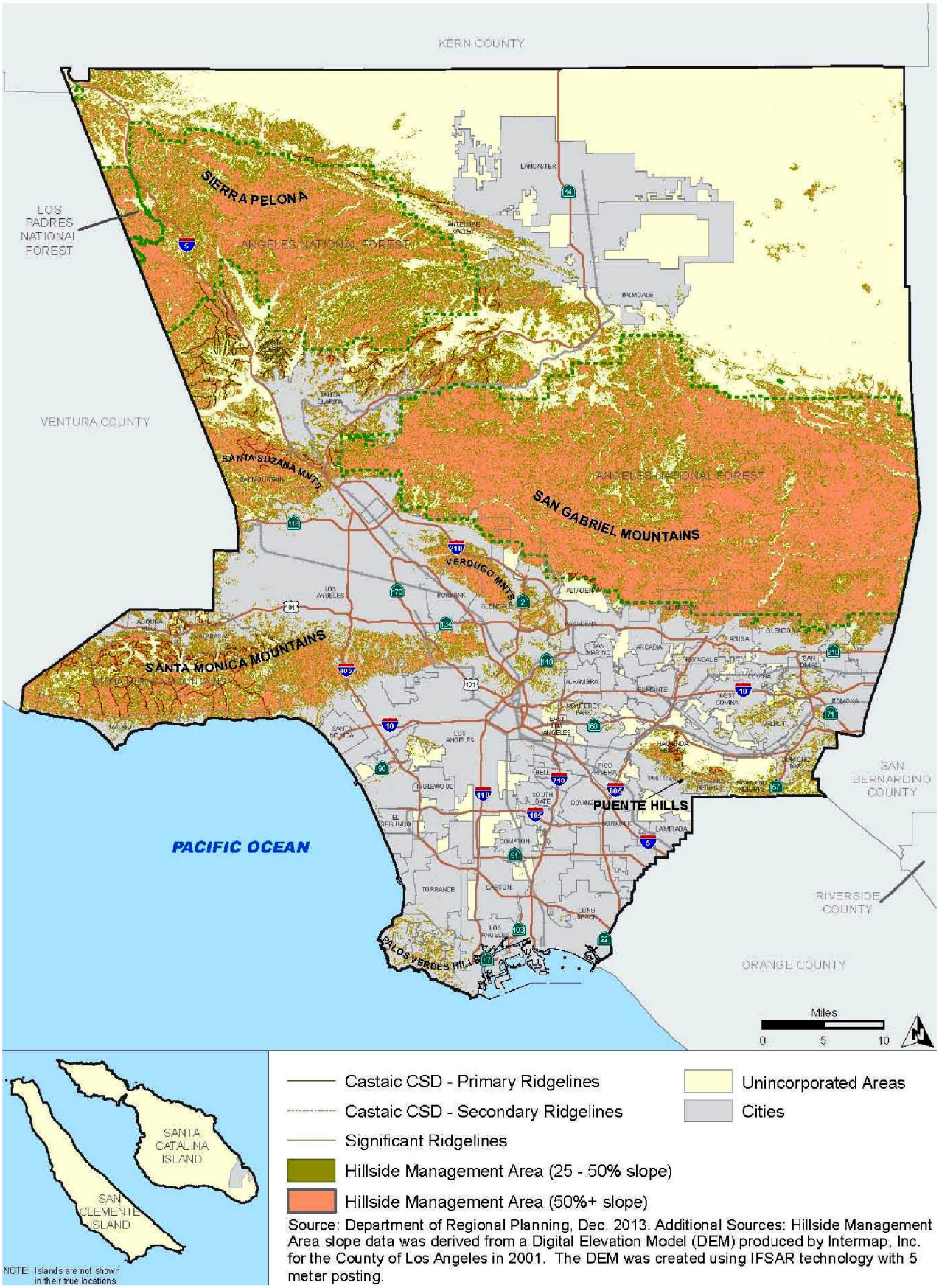

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8124-01

FIGURE 4.1-1

Hillside Management Areas

Los Angeles County Renewable Energy Ordinance EIR

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Source: Department of Regional Planning, Dec. 2013. Additional Sources: California Departmen of Transportation

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FIGURE 4.1-2
State Scenic Highways

Los Angeles County Renewable Energy Ordinance EIR

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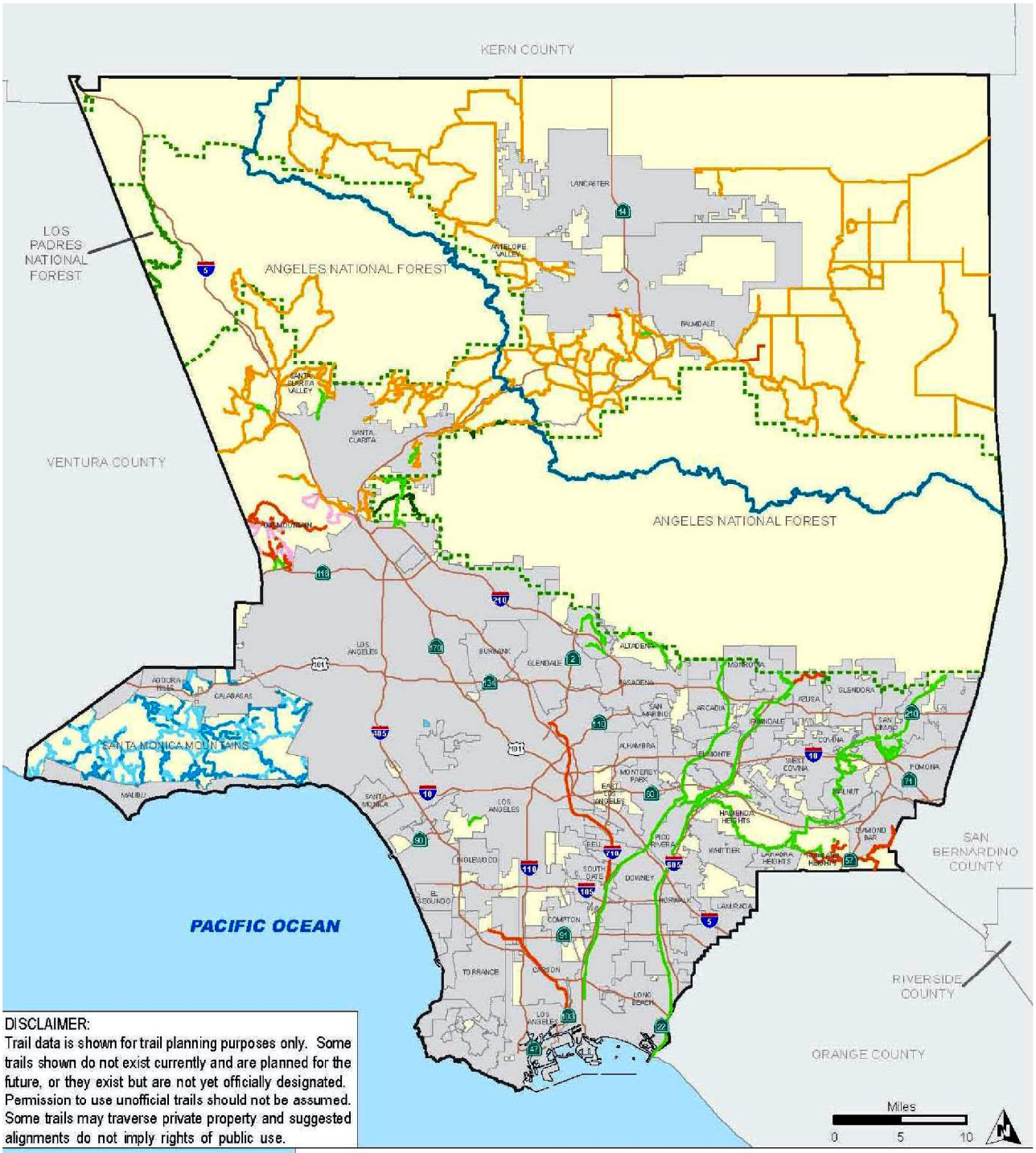

Source: Department of Regional Planning, Dec. 2013. Additional Sources: *Department of Parks and Recreation: January, 2014, **National Park Service (Santa Monica Mountains): April, 2012.

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8124-01

FIGURE 4.1-3

Regional Trail System

Los Angeles County Renewable Energy Ordinance EIR

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4.2 AGRICULTURE AND FORESTRY RESOURCES

This section of the environmental impact report (EIR) describes the existing agriculture and forestry resources of the unincorporated areas of the County of Los Angeles (County), identifies associated regulatory requirements, evaluates the potential impacts of the proposed Zoning Code amendments (proposed project) on these resources, and identifies mitigation measures related to implementation of the proposed project.

4.2.1 Existing Conditions

Although the County is commonly viewed as a primarily urbanized region, agricultural land is considered an important non-renewable resource within the County. The majority of agricultural activity occurs in the northern portions of the County in the Antelope Valley and Santa Clarita Valley Planning Areas. As of 2012, the County had approximately 91,689 acres of land in farming (USDA 2012).

Population growth and accompanying development has resulted in the conversion of agricultural land to non-agricultural uses. This process threatens agricultural land and has led to land use conflicts between existing farms and new residential developments that are being developed adjacent to existing agricultural areas (County of Los Angeles ~~2014a~~2015, Chapter 9).

Agricultural Land Use

A variety of programs administered by the state and County classify and help protect agricultural lands within the County. The Farmland Mapping and Monitoring Program (FMMP), administered by the state and further described below and in Section 4.2.2, identifies important areas of Farmland based on soil types and land use history. Agriculture zoning in the County identifies areas under agricultural use or areas that could be developed with agricultural use, and sets forth development regulations and allowable uses for areas in agricultural zones. The County also designates agricultural areas where agriculture is encouraged and/or preserved by policies, development guidelines, and regulations.

Farmland Mapping and Monitoring Program

As part of the FMMP, the California Department of Conservation produces Important Farmland maps that identify the suitability of agricultural lands in California on a county-by-county basis. The classification of Important Farmlands is based on land use and soil. For land to be shown as Prime Farmland or Farmland of Statewide Importance, land must have been used for irrigated agricultural production at some point within 4 years of the Important Farmland map publishing date, and must contain soils that meet the physical and chemical requirements for classification as Prime Farmland/Farmland of Statewide Importance, as determined by the U.S. Department of

Agriculture Natural Resources Conservation Service. The Natural Resources Conservation Service evaluates soil based on criteria such as available water capacity, soil temperature, acid-alkali balance, soil sodium content, and permeability rate (DOC 2013). The FMMP maps approximately 47.9 million acres of land in 49 counties in California. FMMP maps are updated and released every 2 years. The Important Farmland map categories and the acreage of the FMMP categories present in the County are described in this section, and Figure 4.2-1, State Important Farmland Map, shows the most recent data for the Important Farmland types within the County. The acreages given in this section represent data from the 2010 FMMP maps for Los Angeles County, and include mapped Farmland in the unincorporated areas only. The FMMP maps cover only half of the County's land area, as large areas of the County are entirely urbanized and thus do not contain any Farmland. The FMMP designations do not affect local land use decisions, but are, rather, identification tools that can be used for policy purposes by local governments (County of Los Angeles ~~2014a~~2015, Chapter 9).

Prime Farmland: Prime Farmland has the most favorable combination of physical and chemical features, enabling it to sustain long-term production of agricultural crops. This land possesses the soil quality, growing season, and moisture supply needed to produce sustained high yields. To qualify for this classification, the land must have produced irrigated crops at some point during the two update cycles prior to Natural Resources Conservation Service mapping. The unincorporated County contains 24,374 acres of designated Prime Farmland, which equates to approximately1% of the total unincorporated County acreage.

Farmland of Statewide Importance: Farmland of Statewide Importance is similar to Prime Farmland, but it possesses minor shortcomings, such as greater slopes and/or less ability to store moisture. To qualify for this classification, the land must have produced irrigated crops at some point during the two update cycles prior to Natural Resources Conservation Service mapping. The unincorporated County contains approximately 930 acres of designated Farmland of Statewide Importance, which equates to about 0.05% of the total unincorporated County acreage.

Unique Farmland: Unique Farmland is of lesser-quality soils and is used for the production of the state's leading agricultural crops. Unique Farmland does not meet the previously stated criteria for Prime Farmland or Farmland of Statewide Importance, but it consists of areas that have been used for the production of specific crops with high economic value during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained, high-quality crops and/or high yields of a specific crop when treated and managed according to current farming methods. This land is usually irrigated, but it may include non-irrigated orchards or vineyards, as found in some climatic zones in California. Land must have been cropped sometime during the 4 years prior to the mapping date. The unincorporated County contains approximately 931 acres designated as Unique Farmland (0.05% of the total County acreage).

Farmland of Local Importance: Farmland of Local Importance is important to the local agricultural economy, as determined by the County Board of Supervisors and a local advisory committee. The County defines Farmland of Local Importance as lands that would meet the criteria for Prime Farmland or Farmland of Statewide Importance but are not irrigated. Approximately 6,853 acres of the unincorporated County is designated as Farmland of Local Importance (about 0.4% of the total unincorporated County acreage).

Grazing Land: Grazing Land is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres. Approximately 205,193 acres of the unincorporated County is designated as Grazing Land (about 12% of the total unincorporated County acreage) (FMMP 2010).

Table 4.2-1, Agricultural Lands in the Unincorporated Areas of the County, shows the acreage of FMMP lands in the unincorporated areas. This land is classified by County-designated Planning Area and by FMMP category.

Agricultural Zoning

The County has two agricultural zones: Light Agricultural (A-1) and Heavy Agricultural (A-2). Within the A-2 zone, some areas are designated as Heavy Agriculture Including Hog Ranches (A-2-H), which indicates that hog ranches and fertilizer plants are allowed on those parcels.

The agricultural zones allow for variety of uses, including single-family residences and small group homes, community gardens, livestock, and agricultural uses. The A-2 zone allows for a wider variety of agricultural and non-agricultural uses than the A-1 zone does. Fruit and vegetable packing plants and oil wells are examples of heavier land uses that are allowed in A-2 but not in A-1. With a Conditional Use Permit (CUP), the types of uses for agriculturally zoned land broaden, and can include uses such as airports, universities, and golf courses. Electric-generating plants are a conditionally allowed use in the A-2 zone upon obtaining a CUP.

Agricultural Resource Areas

Agricultural Resource Areas (ARAs) are identified in the ~~2014~~ 2015 Draft General Plan Update and in the ~~Draft~~ 2015 Antelope Valley Area Plan Update[1]. A key purpose of this designation is to

[1] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015. In November 2014, the Draft Antelope Valley Area Plan was considered for adoption by the County Board of Supervisors. However, this plan is not yet officially adopted. It is reasonably foreseeable that this plan will go into effect by July 2015.

encourage preservation and sustainable use of agricultural land, agricultural activities, and compatible uses within these areas. The following land types are ARAs:

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

The following land uses and County land use designations are not considered for ARA designation and are not part of any existing ARAs:

- Significant Ecological Areas (SEAs)
- Approved specific plans
- Approved large-scale renewable energy facilities
- Lands outside of Santa Clarita Valley and Antelope Valley Planning Areas
- Lands that are designated as Public and Semi-Public land uses (County of Los Angeles ~~2014b, Chapter 6 and Chapter 9~~2015)

Because the ~~2014~~ 2015 Draft General Plan Update and the 2015 Antelope Valley Area Plan Update are ~~is currently in the draft stage~~ not yet in effect, the ARA designations are not yet in place. However, it is anticipated that the ~~Draft~~ 2015 Antelope Valley Area Plan Update, the General Plan Update, and the accompanying ARA designations within the Antelope Valley will be in place at about the same time that the proposed project is adopted. (The ARAs designated in the 2015 Antelope Valley Area Plan Update are the same as those designated in Antelope Valley in the ~~2014~~ 2015 Draft General Plan Update.) The proposed ARAs within the County are shown on Figure 4.2-2, Proposed Agricultural Resource Areas. As described in this section, all ARAs are within the Antelope Valley Planning Area and Santa Clarita Valley Planning Area.

Agricultural Opportunity Areas

Agricultural Opportunity Areas (AOAs) are an existing County identification tool to indicate where commercial agriculture is taking place and/or is believed to have a future potential based on the presence of prime agricultural soils, compatible adjacent land uses, and existing County land use policy (County of Los Angeles 2014~~b~~). All AOAs are located within the Antelope Valley. The AOAs encompass larger areas than the ARAs do, as AOAs additionally identify areas where

commercial agriculture is believed to have future potential. AOAs will not remain in place upon adoption of the ~~Draft~~ 2015 Antelope Valley Area Plan Update.

Williamson Act Contract Lands

The purpose of the Williamson Act contract is to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. The only Williamson Act contract lands in the County are located on Santa Catalina Island and held by the Catalina Island Conservancy and set aside for open space and recreational purposes. The proposed Zoning Code amendments would not apply to Santa Catalina Island.

Crops and Operations

Significant crop production occurs in the Antelope Valley. Los Angeles County produced more than $200 million in agriculture products in 2013. Top commodities by dollar value are nursery products, vegetables, field crops, and fruits and nuts (ACWM 2013). The 2012 U.S. Census of Agriculture identifies a general decrease in acres of land in farms and in the number of farms in the County between 2007 and 2012. The 2007U.S. Census of Agriculture identified 1,734 farms in the County, and the 2012 census identified 1,294 farms. Total acreage in farms during 2012 was approximately 91,689 acres, compared to 108,463 acres in 2007.However, the average farm size increased between 2007 and 2012 from 63 acres to 71 acres (USDA 2012).

Forest Resources

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

Within the unincorporated areas of the County, the Angeles National Forest, coupled with a small portion of the Los Padres National Forest, encompasses 650,000 acres. The Angeles National Forest extends along the San Gabriel Mountains and is divided into two sections totaling 1,018 square miles, which equates to approximately 25% of the County land area. The U.S. Forest Service is responsible for managing public forest lands. However, nearly 40,000 acres of the national forests are privately owned. These privately owned areas are commonly referred to as in-holdings, and the County retains responsibility for their land use regulation (County of Los Angeles 2015~~2014a~~, Chapter 9). The County also includes small areas of forest outside of National Forests. These consist primarily of small areas in the Santa Monica Mountains, the

Sierra Pelona, and areas of the San Gabriel Mountains adjacent to the Angeles National Forest. Forest lands within the County are generally zoned Open Space (O-S) and Watershed (W) zones.

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

4.2.2 Relevant Plans, Policies, and Ordinances

Federal

Farmland Protection Policy Act

The U.S. Department of Agriculture administers the Farmland Protection Policy Act of 1981. This act is intended to minimize the extent to which federal programs contribute to the unnecessary conversion of Farmland to non-agricultural uses. The act also requires these programs to be compatible with state, local, and private efforts to protect Farmland.

State

California Public Resources Code

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

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

California Civil Code Section 3482.5 (Right to Farm Act)

The Right to Farm Act is designed to protect commercial agricultural operations from nuisance complaints that may arise when an agricultural operation is conducting business in a "manner consistent with proper and accepted customs." The code specifies that established operations that

have been in business for 3 or more years that were not nuisances at the time they began shall not be considered a nuisance as a result of a new land use.

Farmland Mapping and Monitoring Program

The FMMP, established in 1982, produces maps and statistical data used for analyzing impacts to California's agricultural resources. Agricultural land is rated according to the soil quality and irrigation status, with the best-quality land called Prime Farmland. Maps are updated every 2 years, with current land use information gathered from aerial photographs, a computer mapping system, public review, and field reconnaissance.

California Land Conservation Act (Williamson Act)

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

California Government Code

California Government Code Section 51104(g) defines a timberland production zone as an area that has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses.

The Los Angeles County Code (L.A. County Code) does not identify timberland production zones within the unincorporated portion of the County.

Local

County of Los Angeles General Plan

The ~~2014~~ 2015 Draft General Plan Update includes an Implementing Program to adopt an Agricultural Resources Areas Ordinance. The intent of this ordinance is to encourage the retention and sustainable use of agricultural land for agricultural uses. The ordinance effort would also include analyzing the feasibility of offering incentives such as density bonuses and/or conservation subdivisions that deed-restrict a certain percentage of a project site for open space and agricultural uses only. The County also anticipates that this future ordinance would ensure

compatibility between agricultural and non-agricultural land uses through buffering, development standards, and design requirements (County of Los Angeles ~~2014a~~2015, Chapter 16). Relevant agricultural resources policies set forth in the ~~2014~~ 2015 Draft General Plan Update include protection of ARAs and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance from encroaching development. These policies also discourage incompatible land uses in areas adjacent to or within these farmland areas and encourage agricultural activity within ARAs (County of Los Angeles ~~2014a~~2015, Chapter 9).

~~Draft~~ 2015 Antelope Valley Area Plan Update

The 2014 Draft Antelope Valley Area Plan was being considered for adoption by the County Board of Supervisors as of November 2014. The 2015 Antelope Valley Area Plan Update was published in June 2015 and is anticipated to go into effect in July 2015. This plan sets forth specific goals, policies, land use and zoning maps, and other planning instruments to guide future development and preservation activities in the Antelope Valley Planning Area. The boundaries of this Planning Area are shown in Figure 3-3, Planning Areas, in Chapter 3, Project Description, of this EIR. The Conservation and Open Space Element of this plan contains policies related to agricultural resources. Relevant policies include limiting the amount of potential residential development in ARAs (shown on Map 4.3 of the 2015 Antelope Valley Area Plan Update) through appropriate land use designations with low densities, limiting incompatible uses in ARAs, requiring buffering and appropriate development standards where non-agricultural uses in ARAs are necessary to meet regional or community needs, supporting innovative agricultural business practices such as agricultural tourism by streamlining regulations, and supporting the use of alternative and renewable energy systems in conjunction with agricultural activities (County of Los Angeles 2014~~b~~). As described in Section 4.2.1, the ~~Draft~~ 2015 Antelope Valley Area Plan Update also contains the ARA designations for the Antelope Valley. The ARA designations will go into effect upon adoption of the 2015 Antelope Valley Area Plan Update.

Los Angeles County Code – Agricultural Zone

L.A. County Code, Title 22, Chapter 22.24, Parts 1 through 4, contain regulations for the agricultural zones within the County: A-1, A-2, A-2-H, and Residential Agricultural (R-A). Chapter 22.24 of the County Code contains a list of allowable uses for each of these zones, allowable uses with director's review and approval, and allowable uses with the appropriate permits, and a list of development standards (L.A. County Code, Chapter 22.24).

Los Angeles County Code – Watershed Zone

L.A. County Code, Title 22, Chapter 22.20, Part 6, contains regulations for the W zone, one of two zones used for forest lands within the County. The purpose of the W zone, as defined in the County Code, is to "provide for conservation of water and other natural resources within a watershed area and to protect areas subject to fire, flood, erosion or similar hazards" (L.A. County Code, § 22.40.240). This zone allows for limited recreational development of the land and necessary public facilities. Chapter 22.40, Part 6, contains a list of allowable uses for the W zone, allowable uses with director's review and approval, and allowable uses with the appropriate permits, as well as a list of development standards.

Los Angeles County Code – Open Space Zone

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

4.2.3 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts to agriculture and forestry resources are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

A. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

B. Conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract.

C. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220 (g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g)).

D. Result in the loss of forest land or conversion of forest land to non-forest use.

E. Involve other changes in the existing environment that, 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.

4.2.4 Impacts Analysis

Criterion A: Would the project 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?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or California Environmental Quality Act (CEQA) review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility scale structure-mounted solar energy facilities proposed in Single Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Although some small-scale solar energy systems would be roof mounted and would not result in ground disturbance, others would be ground mounted. However, small-scale solar energy systems would be permitted as accessory uses on designated Farmland and would not convert Farmland to a non-agricultural use. The purpose of a small-scale solar energy system is to generate electricity for use in homes, agricultural facilities, and small businesses; therefore, small-scale solar energy systems would assist in agricultural operations.

The specific locations of small-scale solar energy systems to be implemented under the proposed project are currently unknown. However, these facilities would not result in substantial ground-disturbing activities that may result in the permanent conversion of

Important Farmland to a non-agricultural use. Small-scale ground-mounted systems would be limited in size because, by definition in the proposed Zoning Code amendments, the maximum lot coverage shall be 25% of the lot or parcel of land, or 2.5 acres, whichever is less. These systems would be used to generate energy primarily for on-site use, although there is the potential for any extra energy to be used off site.

A utility-scale structure-mounted solar energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where solar energy is used to generate power primarily for off-site use. Utility-scale structure-mounted solar facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include but are not limited to solar collector arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. As a result, these facilities are anticipated to be associated with minimal ground disturbance, if any. Therefore, impacts related to conversion of Farmland from the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems, Utility-Scale Structure-Mounted Wind Energy Facilities, and Temporary MET Towers

Small-scale and utility-scale structure-mounted wind energy systems and facilities could be located within Farmland. However, such systems would be located on existing rooftops or structures and would be associated with minimal ground disturbance, if any.

Small-scale ground-mounted wind energy systems and temporary MET towers would require erection of turbine towers and construction of concrete foundations. However, due to the limited generating capacity of such systems (maximum of 50 kilowatts) ~~allowed by the proposed project~~, such systems would not be expected to result in substantial ground disturbance to the extent that Farmland would be converted to a non-agricultural use. Additionally, temporary MET towers do not require large foundations and would not result in substantial ground-disturbing activities that may result in the permanent conversion of Farmland to a non-agricultural use. If located on Farmland, the installation of MET towers would result in the temporary conversion of Farmland to non-agricultural use; however, due to the temporary nature and use of the MET towers, previous uses could return once the wind testing phase is complete. In addition, ~~these future~~ small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities~~projects~~ would be subject to further review under CEQA through the discretionary Minor CUP process. Therefore, impacts to Farmland would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

As shown in Figure 4.2-1, the areas of the County that have been designated as Farmland by the FMMP are limited. However, in the event that future utility-scale renewable energy facilities are proposed on these designated lands, they would convert the land to a non-agricultural use. The CUP discretionary review process would require all future utility-scale ground-mounted projects to be evaluated under CEQA and to implement measures to minimize impacts to Farmland in the event that the project is proposed on Farmland. Mitigation measures that have been proposed for utility-scale ground-mounted renewable energy facilities within the County include mitigating the net acreage of lost Farmland at a 1:1 ratio through purchase of agricultural conservation easements, purchase of credits from an established agricultural farmland mitigation bank, contribution of agricultural land or equivalent funding to an organization that provides for the preservation of Farmland in California, or participation in an agricultural land mitigation program adopted by the County. Other mitigation options could include avoidance of agricultural resources and inclusion of compatibility buffers near areas intended for agricultural use. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level below significant, future utility-scale ground-mounted facilities may result in **potentially significant** impacts related to conversion of Farmland to a non-agricultural use (**Impact AGR-1**).

Criterion B: Would the project conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Agriculturally zoned lands exist throughout the County but are generally concentrated in the Antelope Valley, Santa Clarita, and Santa Monica Mountains Planning Areas. ARAs are located within the Antelope Valley and Santa Clarita Valley. Although they are scattered throughout the unincorporated areas of the Antelope Valley, agriculturally zoned lands are generally concentrated in the northwest corner and the southeast corner of Antelope Valley, as well as in areas to north of Lancaster and Palmdale. The Santa Clarita Valley contains fewer ARAs, and these ARAs are smaller than those in the Antelope Valley (see Figure 4.2-2). The ARA designation in the Antelope Valley will go into effect upon adoption of the 2015 Antelope Valley Area Plan Update; ARA designations in the Santa Clarita Valley will go into effect upon adoption of the ~~2014~~ 2015 Draft General Plan Update. The ARA designation is given to encourage preservation and sustainable use of agricultural land, agricultural activities, and compatible uses within lands that are mapped as Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, or Unique Farmland, and lands that have received permits from the County Agricultural Commissioner/Weights and Measures. Although a number of general plan and Antelope Valley Area Plan policies are related to protection of agricultural uses within ARAs, these lands may also be subject to an ARA Ordinance in the future. This ARA Ordinance is one of the Implementing Programs described in the ~~2014~~ 2015 Draft General Plan Update. Because

adoption of this ordinance would be a future action, and because it is dependent on adoption of the ~~2014~~ 2015 Draft General Plan Update, its contents and regulations are currently speculative.

The only Williamson Act contract lands in the County are located on Santa Catalina Island. These lands are held by the Catalina Island Conservancy and set aside for open space and recreational purposes.

Structure-mounted solar energy systems could be located within agriculturally zoned lands, ARAs, existing AOAs, or Williamson Act contract lands. However, such systems would be constructed on existing rooftops or other structures and would not result in ground disturbance to an extent that would potentially affect agriculturally zoned land, ~~a designated~~ ARAs, AOAs, or Williamson Act contract lands.

Small-scale ground-mounted solar energy systems would involve ground disturbance that could potentially occur on agriculturally zoned land, ARAs, AOAs, or Williamson Act contract lands. Under the proposed project, such systems would be allowable in the County agricultural zones (A-1, A-2, and A-2-H) upon going through ministerial review. However, small-scale solar energy systems would be permitted only as accessory uses and would not convert Farmland to a non-agricultural use. The purpose of a small-scale solar energy system is to generate energy that can be used to provide a reliable power source for homes, agricultural facilities, or small businesses; therefore, small-scale solar energy systems would assist in agricultural operations. Minor ground disturbance would potentially result from small-scale solar energy systems and utility-scale structure-mounted solar energy facilities; however, these projects would be associated with minimal ground disturbance, if any, and no land use conversions would result. Therefore, impacts to agricultural zoning would be **less than significant**.

Program-Level Components

Under the proposed project, development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems, Utility-Scale Structure-Mounted Wind Energy Facilities, and Temporary MET Towers

Structure-mounted wind energy ~~systems and facilities~~projects could be located within agriculturally zoned lands, ARAs, AOAs, or Williamson Act contract lands. However, such systems would be constructed on existing rooftops and would not result in ground disturbance to an extent that would potentially affect agriculturally zoned land, ~~a designated~~ ARAs, AOAs, or Williamson Act contract land.

Small-scale ground-mounted wind energy systems would require erection of turbine towers and construction of concrete foundations. However, due to the limited generating capacity of such systems ~~allowed by the proposed Zoning Code amendments~~, such systems would not be expected to result in substantial ground disturbance to the extent that conflicts would occur with agriculturally zoned land, ~~a designated~~ ARAs, AOAs, or Williamson Act contract lands. Although not specifically permitted by current Williamson Act regulations, small wind turbines and other accessory uses are typically permitted if these uses are compatible with existing agricultural operations. Furthermore, the amount of Williamson Act contract land within the County is limited and currently exists only on Santa Catalina Island. Future MET towers would operate temporarily, and once wind testing is completed, temporary MET towers would be removed and previous agricultural uses could return. Also, temporary MET towers do not require large foundations and would not result in substantial ground-disturbing activities. As such, temporary MET towers would not substantially interfere with existing agriculture operations on agriculturally zoned lands, ARAs, AOAs, or Williamson Act contract lands. Additionally, ~~these future projects~~small-scale wind energy systems, temporary MET towers, and utility-scale~~s~~ structure-mounted wind energy facilities would be subject to further review under CEQA through the Minor CUP process. Therefore, small-scale ground-mounted wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers developed under the proposed project would result in a **less than significant** impact to agricultural zoning.

Utility-Scale Ground-Mounted Renewable Energy Facilities

All lands under Williamson Act contact within the County are located on Santa Catalina Island, are held by the Catalina Island Conservancy, and have been set aside by that organization for open space and recreational purposes. Therefore, it is unlikely that future utility-scale ground-mounted facilities would be developed on Williamson Act contract lands. However, future utility-scale ground-mounted facilities would be allowed within the A-2 and A-2-H zones upon obtaining a CUP. Future utility-scale ground-mounted facilities would not be allowed within the A-1 zone. Future facilities could also be allowed with an AOA or ARA, so long as that AOA or ARA is in the A-2 or A-2-H zone.

In the event that future utility-scale facilities are proposed on these designated lands, they would likely preclude the agricultural use of that land. The CUP discretionary review process would require all future utility-scale ground-mounted projects to be evaluated under CEQA and to implement measures to minimize impacts to agricultural in the event that the project were proposed on agriculturally zone lands, ARAs, AOAs, or Williamson Act contract lands. Example mitigation measures that have been proposed for utility-scale ground-mounted solar facilities within the County are described under Criterion A. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level

below significant, future utility-scale ground-mounted facilities may result in **potentially significant** impacts related to agricultural zoning, ARAs, AOAs, or Williamson Act contract lands (**Impact AGR-2**).

Criterion C: Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g))?

As stated in Section 4.2.1, forest land is defined in the California Public Resources Code as land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits (Pub. Resources Code, § 12220(g)). Timberland is defined as land that is available for and capable of growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees (Pub. Resources Code, § 4526). The Zoning Code does not contain zones specifically for forest use or production of forest resources. Additionally, forest use is not specified as a permitted use in any of the three agricultural zones. As the County has no existing zone specifically designating forest or timberland use, the development of small-scale or utility-scale renewable energy systems or facilities or temporary MET towers would result in **no impact** to such forest or timberland zones.

Criterion D: Would the project result in the loss of forest land or conversion of forest land to non-forest use?

Project-Level Components

The proposed project would allow for development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section

65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Forests in the County are generally located only along the mountain ranges in the Antelope Valley, Santa Clarita Valley, and Santa Monica Mountains Planning Areas. However, small areas of forest are also found at the northern edge of the East San Gabriel Valley and West San Gabriel Valley Planning Areas. The largest concentration of forest is in the Angeles National Forest, which covers 25% of the land area of the County. Despite the large extent of the Angeles National Forest, very little of it contains forests or woodlands as defined by the California Public Resources Code. Most of the land in the Angeles National Forest is chaparral or similar scrub communities. Forests in the County are limited to narrow formations along creeks and other watercourses, and to the highest elevations of the San Gabriel Mountains.

The forests situated along creeks generally consist of coast live oak riparian forest or southern cottonwood–willow riparian forest. Coast live oak riparian forest occurs in narrow formations along watercourses; southern cottonwood–willow riparian forest occurs in frequently flooded lands along perennially wet stream areas. As these communities are generally considered riparian habitat, they would be protected under existing regulations, including Sections 1600 et seq. of the California Fish and Game Code, as the California Department of Fish and Wildlife has jurisdiction over riparian habitat.

The higher-elevation areas of the County's mountain ranges may contain oak riparian forest, which occurs in canyons at higher elevations. Many of these areas are protected within the Angeles National Forest and the Santa Monica Mountains National Recreation Area. Additionally, some oak riparian forests are located in riparian habitat that is within the jurisdiction of the California Department of Fish and Wildlife.

~~Forest land in the County is also protected through the County's SEA Ordinance. As part of its 2014 Draft General Plan Update and Antelope Valley Area Plan Update, the County is updating the SEA designations and policies. Both the existing and proposed SEA designations protect forest resources throughout the County. Future renewable energy systems that are located within an SEA would be subject to review by the Significant Ecological Area Technical Advisory Committee (SEATAC). The SEATAC would recommend mitigation measures such as minimizing development footprint, reducing project height, and avoiding certain natural resources to reduce potential impacts to forest resources.~~

Structure-mounted solar energy systems and facilities could be located within forest land; however, this would be unlikely, as forest land within the County is generally limited to trees growing along

riparian areas such as creek and canyons. Additionally, such systems would be located on existing rooftops and would not result in ground disturbance to an extent that could potentially cause the loss of forest land or that could result in the conversion of forest land to a non-forest use.

Ground-mounted solar energy systems would involve ground disturbance that could potentially occur on forest land. As described under Criterion A, small-scale ground-mounted systems would be limited in size because, by definition in the proposed Zoning Code amendments, the maximum lot coverage shall be 25% of the lot or parcel of land, or 2.5 acres, whichever is less~~they would not be allowed to provide for more than 150% of the on-site energy demand~~. Typically, these systems would only be used to generate energy for on-site use, although there is the potential for extra energy to be used off site. Additionally, as stated above, development on forest lands would likely be subject to a number of state and local regulations, including ~~SEATAC review and~~ the California Fish and Game Code. Furthermore, such systems would undergo project-level CEQA review for O-S and W zones, which generally contain a concentration of the County's limited forest lands.

As a result of the limited range of forest resources within the County, the existing state and County regulations protecting these lands, and the likelihood that ground disturbance associated with small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be limited, such projects developed under the proposed project would result in a **less than significant** effect with respect to removal or conversion of forest land.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems, Utility-Scale Structure-Mounted Wind Energy Facilities, and Temporary MET Towers

Structure-mounted wind energy ~~systems and facilities~~projects could be located within forest land; however, this would be unlikely, as forest land within the County is generally limited to trees growing along riparian areas such as creek and canyons. Additionally, such systems and facilities would be located on existing rooftops and would not result in ground disturbance to an extent that could potentially cause the loss of forest land or that could result in the conversion of forest land to a non-forest use.

Forest land in the County is protected through the County's SEA Ordinance. As part of its 2015 Draft General Plan Update and 2015 Antelope Valley Area Plan Update, the County is updating

the SEA designations. Both the existing and proposed SEA designations protect forest resources throughout the County. Future small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities that are located within a SEA would be subject to review by the Significant Ecological Area Technical Advisory Committee (SEATAC). The SEATAC would recommend mitigation measures such as minimizing development footprint, reducing project height, and avoiding certain natural resources to reduce potential impacts to forest resources.

Small-scale ground-mounted wind energy systems would involve ground disturbance that could potentially occur on forest land. As described under Criterion A, such systems would be small due to the limited generating capacity of such systems ~~allowed by the proposed Zoning Code amendments~~. Therefore, such systems would be associated with minimal ground disturbance, if any; therefore, minimal forest land would be lost or converted to a non-forest use. Additionally, temporary MET towers do not require large foundations and would not result in substantial ground-disturbing activities that would result in the conversion or loss of forest land.

~~These future projects~~Small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities would also be subject to further review under CEQA through the Minor CUP process. Therefore, small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and MET towers would result in a **less than significant** impact related to conversion or loss of forest land.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Although the amount of ground disturbance potentially associated with utility-scale ground-mounted facilities would be of a magnitude that such projects could potentially result in the conversion or loss of forest land, the locations of forest resources within the County and the limited amount of forest resources would make this effect unlikely. Additionally, the County's limited forest resources are mostly located within the O-S and W zones, in which utility-scale ground-mounted facilities would be prohibited. Forest resources located outside of these zones would be generally confined to limited hillside areas along the foothills of the San Gabriel Mountains and riparian canyons. Such facilities would also be prohibited in SEAs. Due to the limited ~~extend~~ extent of forest resources within the County, the existing zoning of much of the County's forest resources, and the project-level CEQA review that future projects would be required to undergo during the CUP process, impacts of utility-scale structure-mounted renewable energy facilities related to loss or conversion of forest land are anticipated to be **less than significant**.

Criterion E: Would the project involve other changes in the existing environment that, 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?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

As described under Criterion D, forest land within the County is limited. Therefore, indirect effects would be confined to Farmland.

Structure-mounted solar energy systems and facilities could be located within or adjacent to Farmland or forest land. However, such systems and facilities would be located on existing rooftops and would not result in ground disturbance to an extent that could cause indirect effects to Farmland or forest land resulting in conversion of such land to a non-agricultural or non-forest use.

Ground-mounted solar energy systems would involve ground disturbance that could potentially occur on or adjacent to Farmland or forest land. However, small-scale solar energy systems would be permitted as accessory uses on designated Farmland, and would not convert Farmland to a non-agricultural use. The purpose of a small-scale solar energy system is to generate energy for a power source for homes, agricultural facilities, or small businesses; therefore, small solar energy systems would assist in agricultural operations.

The specific locations of future small-scale solar energy systems are currently unknown. However, these facilities would not result in substantial ground-disturbing activities that may

result in the permanent conversion of Farmland to a non-agricultural use. Small-scale ground-mounted systems would be limited in size because, by definition in the proposed Zoning Code amendments, they would adhere to a maximum lot coverage of 25% of the lot or parcel of land, or 2.5 acres, whichever is less. Typically, these systems would only be used to generate energy for on-site use, although there is the potential for extra energy to be used off site. Although minor ground disturbance would potentially result from ground-mounted small-scale solar energy systems, ground disturbance would be minimal and no land use conversions would result. Therefore, indirect effects to Farmland or forest land associated with small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be **less than significant.**

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems, Utility-Scale Structure-Mounted Wind Energy Facilities, and Temporary MET Towers

Structure-mounted wind energy ~~systems and facilities~~projects could be located within or adjacent to Farmland or forest land. However, such systems and facilities would be located on existing rooftops or structures and would not result in ground disturbance to an extent that could cause indirect effects to Farmland or forest land resulting in conversion of such land to a non-agricultural or non-forest use.

Ground-mounted wind energy systems would involve ground disturbance that could potentially occur on or adjacent to Farmland or forest land. As described under Criterion A, such systems would be small due to the limited generating capacity of such systems~~ allowed by the proposed project~~. Therefore, such systems would not be expected to result in substantial ground disturbance to the extent that Farmland or forest land would be indirectly affected and converted. Additionally, temporary MET towers would not require large foundations and would not result in substantial ground-disturbing activities that may result in indirect effects to agricultural or forest land, or in conversion of such lands. Additionally, these future projects would be subject to further review under CEQA through the Minor CUP process. Therefore, small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers would result in a **less than significant** impact relative to indirect effects on Farmland or forest land.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Utility-scale ground-mounted renewable energy facilities would involve ground disturbance that could potentially occur on or adjacent to Farmland or forest land; see Criterion A for further details. Therefore, future ground-mounted facilities could result in a **potentially significant** impact relative to indirect effects on Farmland resulting in conversion of use (**Impact AGR-3**).

4.2.5 Level of Significance Before Mitigation

Impact AGR-1 Impacts related to conversion of Farmland to a non-agricultural use from development of utility-scale ground-mounted renewable energy facilities under the proposed project.

Impact AGR-2 Impacts related to agricultural zoning, AOAs, or Williamson Act contract lands from development of utility-scale ground-mounted renewable energy facilities under the proposed project.

Impact AGR-3 Impacts related to indirect effects from conversion of Farmland from development of utility-scale ground-mounted renewable energy facilities under the proposed project.

4.2.6 Mitigation Measures

MM AGR-1 When impacts relative to Farmland, agricultural zoning, Agricultural Opportunity Areas, or Williamson Act contracts are determined to be significant during the environmental review process for future Conditional Use Permits for utility-scale ground-mounted renewable energy facilities, all feasible and appropriate project-specific mitigation measures shall be incorporated. Examples of standard mitigation measures include avoidance of agricultural resources, preservation of agriculture, and inclusion of compatibility buffers near areas intended for agricultural uses.

4.2.7 Level of Significance After Mitigation

Impact AGR-1, Impact AGR-2, Impact AGR-3

Incorporation of mitigation measure **MM AGR-1** would reduce potential impacts, but not to a level less than significant. Therefore, impacts to agriculture and forestry resources would remain potentially significant and unavoidable.

Table 4.2-1
Agricultural Lands in the Unincorporated Areas of the County (in acres)

Planning Area	Prime Farmland	Farmland of Statewide Importance	Unique Farmland	Farmland of Local Importance	Grazing Land	Total
Antelope Valley						
Antelope Valley	23,231	749	463	6,723	135,342	**166,508**
Unincorporated Urban Islands						
Santa Clarita Valley	1,039	181	264	130	55,222	**56,836**
Santa Monica Mountains	104	—	204	—	—	**308**
San Fernando Valley	—	—	—	—	14,629	**14,629**

Source: FMMP 2010.

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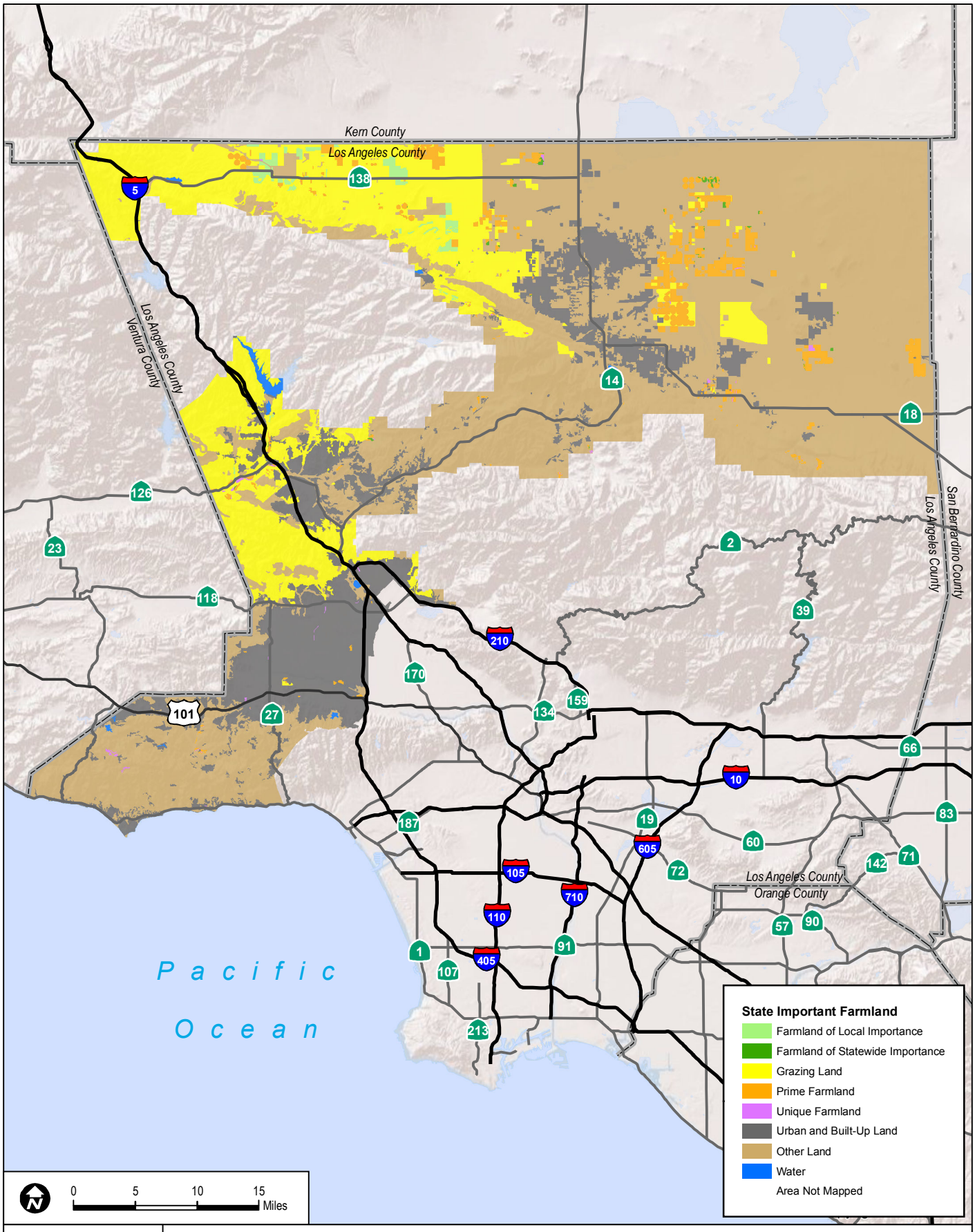

DUDEK

8124-01

SOURCE: California Department of Conservation 2010

FIGURE 4.2-1

State Important Farmland Map

Los Angeles County Renewable Energy Ordinance EIR

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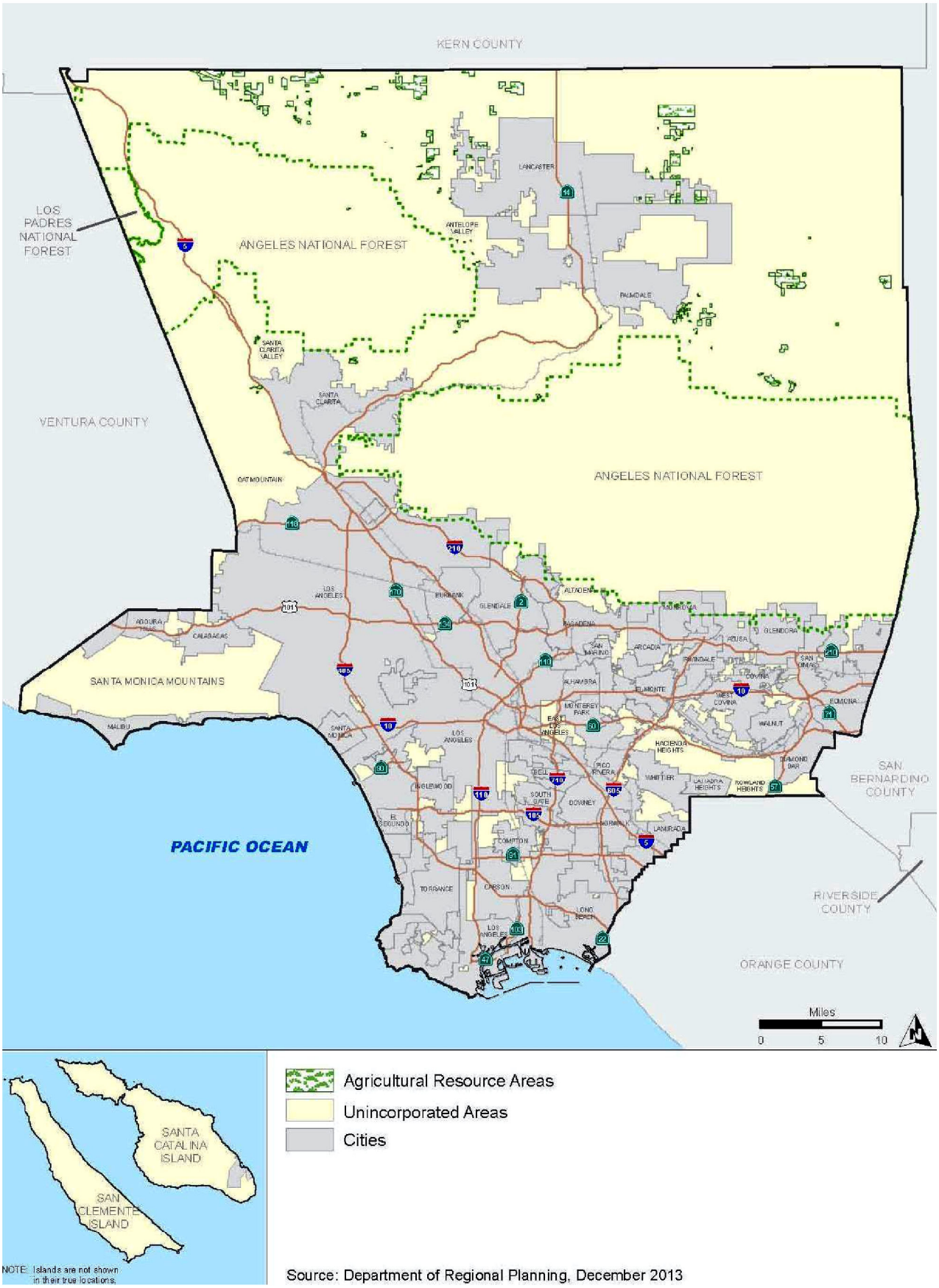

Source: Department of Regional Planning, December 2013

DUDEK

8124-01

FIGURE 4.2-2

Proposed Agricultural Resource Areas

Los Angeles County Renewable Energy Ordinance EIR

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4.3 AIR QUALITY

This section describes the existing air quality setting of the project ~~site and vicinity~~area, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed amendments to the Zoning Code (proposed project). Analysis specifically pertaining to greenhouse gas emissions and climate change is discussed in Section 4.7, Greenhouse Gas Emissions, of this environmental impact report (EIR).

4.3.1 Existing Conditions

The County of Los Angeles (County) encompasses approximately 4,083 square miles and is bound by the Pacific Ocean to the southwest, by Ventura County to the west and northwest, by Kern County to the north, and by San Bernardino and Orange County to the east and southeast. About 75 miles of the County front the Pacific Ocean. The Angeles Crest National Forest (comprising the San Gabriel and Sierra Pelona mountain ranges) roughly bisects the County into two regions: the Los Angeles Basin and the Antelope Valley (County of Los Angeles ~~2014a~~2015a).

The proposed project would apply to the unincorporated areas of the County, which account for about 65% of the total County land area, equating to 2,656 square miles. Of this 2,656-square-mile unincorporated area, 1,800 square miles are located within the Antelope Valley. The unincorporated area of Antelope Valley surrounds the City of Palmdale and the City of Lancaster and borders San Bernardino County to the east, the remainder of Los Angeles County to the south, Ventura County to the west, and Kern County to the north. This high desert area is considered the western part of the Mojave Desert and is sparsely populated outside the metropolitan area. Approximately 719 square miles of unincorporated County land area are encompassed by 38 discontinuous land areas often referred to as the County's unincorporated urban islands. The unincorporated urban islands are scattered throughout the Los Angeles Basin. The denser, more urban islands are often surrounded on all sides by one or more incorporated cities, while the suburban and rural areas often border hillsides or open space. The remaining 131 square miles of unincorporated County land consist of San Clemente Island and Santa Catalina Island, two coastal islands located 63 miles and 22 miles off the coast of California, respectively (County of Los Angeles ~~2014a, 2014b~~2015a, 2015b). The project would be County wide, with location considerations for large-scale renewable energy facilities—such as access to transmission lines, open areas, and particular meteorological conditions—unique to the Antelope Valley. Location considerations also include urban areas that could accommodate smaller scale renewable energy facilities.

These distinct geographical areas of the Antelope Valley and the Los Angeles Basin are reflected by the boundaries of the two air basins that divide the County. 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) (see Figure 4.3-1, Air Basins).

The SCAB encompasses all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAB has among the worst air quality ratings in the country, and air quality in Southern California as a whole generally does not meet state or federal air quality requirements (County of Los Angeles ~~2014c~~2015c) for ozone (O_3), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size ($PM_{2.5}$), and particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM_{10}). The South Coast Air Quality Management District (SCAQMD) is 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 SCAB.

The MDAB encompasses the northeastern portion of Los Angeles County, the eastern portion of Kern County, and the majority of San Bernardino County. Unlike the SCAB, which is entirely managed by the SCAQMD, the MDAB is divided into four air districts, each of which has primary authority for air quality in its jurisdiction. The Antelope Valley lies within the Antelope Valley Air Quality Management District (AVAQMD), which has jurisdiction over the part of the MDAB that lies within Los Angeles County (AVAQMD 2011).

4.3.1.1 Topography and Meteorology

Air quality is influenced by the amount of air pollutants emitted, by the rate at which they are emitted, and by the topography and meteorology of the area in which they are emitted. In both the SCAB and in the MDAB, topography and meteorology contribute to air quality conditions.

South Coast Air Basin

The SCAB's combination of topography, low mean mixing height, abundant sunshine, and emissions from one of the largest urban areas in the United States has historically resulted in some of the worst air pollution in the nation.

Although the SCAB has a semiarid climate, air near the surface is generally moist because of the presence of a shallow marine layer. With very low average wind speeds, there is a limited capacity to disperse air contaminants horizontally. The dominant daily wind pattern is an onshore daytime breeze of 8 to 12 miles per hour (mph) and an offshore nighttime breeze of 3 to 5 mph. The typical wind flow pattern fluctuates only with occasional winter storms or strong northeasterly Santa Ana winds from the mountains and deserts northeast of the SCAB. Summer wind flow patterns represent worst-case conditions because this is the period of higher temperatures and more sunlight, which results in more O_3 formation.

During spring and early summer, pollution produced during any one day is typically blown out of the SCAB through mountain passes or lifted by warm, vertical currents adjacent to mountain slopes. The vertical dispersion of air pollutants in the SCAB is limited by temperature inversions in the atmosphere close to the Earth's surface. The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are carbon monoxide (CO), $PM_{2.5}$ and PM_{10} , and nitrogen dioxide (NO_2) because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and oxides of nitrogen (NO_x) to form photochemical smog (SCAQMD 2011).

Mojave Desert Air Basin

The MDAB is separated from Southern California coastal regions and central California valley regions by mountains extending up to 10,000 feet above mean sea level (amsl). As a result, the Mojave Desert is removed from the cooling effects of the Pacific Ocean and is characterized by extreme temperatures. The MDAB consists of an assemblage of mountain ranges interspersed with valleys that often contain dry lakes. Lower-elevation mountains scattered throughout the basin are generally 1,000 feet to 4,000 feet high. Mountain passes form channels for air masses flowing from the west and southwest and the prevailing winds from the west and southwest are caused by the proximity of the MDAB to coastal and central regions and to the blocking effect of the Sierra Nevada to the north.

The Antelope Valley is in the western portion of the MDAB. It is bordered to the northwest by the Tehachapi Mountains and is separated from the Sierra Nevada to the north by the Tehachapi Pass, which has an elevation of approximately 3,800 feet amsl. The Antelope Valley is bordered on the south by the San Gabriel Mountains, which are bisected by Soledad Canyon, a pass with an elevation of approximately 3,300 feet amsl, which provides connectivity between the air masses of the Los Angeles Basin and the Antelope Valley.

During the summer the MDAB is generally influenced by a Pacific Subtropical High cell that resides off the coast of California. This high pressure cell prevents cloud formation and engenders daytime solar heating. The MDAB is rarely influenced by the cold air masses that move south from Canada and Alaska, as these frontal systems diffuse by the time they reach the basin. Most moisture arrives from infrequent warm, moist, and unstable air masses from the south. The MDAB averages between 3 and 7 inches of precipitation per year. The MDAB is classified as a dry–hot desert climate, with portions classified as dry–very hot desert, indicating that at least 3 months have maximum average temperatures over 100 degrees Fahrenheit (°F) (AVAQMD 2011).

4.3.1.2 Pollutants and Effects

Air pollution is a general term that refers to one or more chemical substances that degrade the quality of the atmosphere. Individual air pollutants may adversely affect human or animal health, reduce visibility, damage property, and reduce the productivity or vigor of crops and natural vegetation.

Through the implementation of SCAQMD and AVAQMD rules, the County has emission controls that are among the most stringent in the country. However, the County is home to diverse industrial activities and to the largest goods movement operation on the west coast, and both power generation and petroleum refining activities in the County continue to create substantial stationary sources of air pollution (County of Los Angeles ~~2014c~~2015c). The emissions from industrial and transportation activities in the County, combined with the topographic and meteorological characteristics of the area, create air quality conditions that fail to meet state and federal ambient air quality standards.

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, NO_2, CO, sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead. These pollutants, as well as volatile organic compounds (VOCs) and toxic air contaminants (TACs), are discussed below.[1] In California, sulfates (SO_4), vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors such as hydrocarbons and NO_x . These precursors are mainly NO_x and VOCs (also referred to as reactive organic compounds or gases). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere ozone layer (stratospheric O_3) as well as at the Earth's surface in the troposphere (O_3). O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern

[1] The descriptions of health effects for each of the criteria air pollutants associated with project construction and operations are based on the U.S. Environmental Protection Agency's *Six Common Air Pollutants* (EPA 2012) and CARB's *Glossary of Air Pollutant Terms* (CARB 2012).

changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children. Significant O_3 concentrations are primarily produced in the summer, when atmospheric inversions are greatest and temperatures are high. VOC and NO_x emissions are both considered critical in O_3 formation. Control strategies for O_3 have focused on reducing emissions from motor vehicles; industrial processes using solvents and coatings; stationary combustion devices, such as boilers, engines, and gas turbines; and consumer products.

Nitrogen Dioxide. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. NO and NO_2 are collectively referred to as NO_x . NO_x plays a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers. NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections.

Carbon MoNO_x ***ide.*** CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil, fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas such as the County, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions; primarily, wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Fine particulate matter ($PM_{2.5}$) is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and

woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x , and VOCs. Respirable particulate matter, or coarse particulate matter (PM_{10}), is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport absorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle, as well as producing haze and reducing regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM_{10} and $PM_{2.5}$. Other groups considered sensitive are smokers, people who cannot breathe well through their noses, and exercising athletes (because many breathe through their mouths).

Ultrafine particulate matter are defined as particles with an aerodynamic diameter of 0.1 microns or smaller, and are 25 and 100 times smaller than $PM_{2.5}$ and PM_{10} , respectively. The largest sources of ultrafine particle mass are on-road motor vehicles, stationary source fuel combustion, non-highway mobile sources (for example diesel off-road vehicles), and miscellaneous processes like char-broiling, petroleum refining, and waste burning. Human exposure studies have shown that individuals with moderate to severe airway obstruction receive a greater dose of ultrafine particulate matter than do healthy individuals. In addition, ultrafine particles pass rapidly into the human circulatory system, implying a clearance mechanism exists for ultrafine particulate matter in the lungs; however, at the same time increasing the number of particles in the blood and thus increasing exposure to other organs. These results suggest that certain sensitive sub-populations, like individuals with chronic obstructive pulmonary disease, may be at greater risk than healthy individuals when exposed to ultrafine particulate matter due to an increased dose in the lungs, which leads to an increased dose in the circulatory system. Finally, a toxicology study indicates that ultrafine particulate matter is more potent than $PM_{2.5}$ and PM_{10} with regard to inducing cellular damage (CARB 2003).

Diesel particulate matter has been identified as a toxic air contaminant and represents 70% of the known potential cancer risk from air toxics in California. Diesel particulate matter is an important contributor to particulate matter air pollution. In California, on-road diesel-fueled vehicles contribute about 26% of statewide diesel particulate matter emissions, with an additional 72% attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and other equipment. Stationary engines in shipyards, warehouses, heavy equipment repair yards, and oil and gas production operations contribute about 2% of statewide emissions. Particulate matter exposure is associated with premature mortality and health effects such as asthma exacerbation and hospitalization due to aggravating heart and lung disease (CARB 2005).

Ultrafine particulate matter and diesel particulate matter, as they relate to the proposed project, are not discussed within the impact analysis. Ultrafine particulate matter and diesel particulate matter are not considered to be a criteria air pollutant, as federal and state governments have not established ambient air quality standards; therefore, no significance threshold has been adopted by either the SCAQMD or AVAQMD. Construction of the proposed project could involve the use of equipment powered by diesel engines, which could potentially emit ultrafine particulate matter and diesel particulate matter; however, construction activities would be temporary in nature, and are not anticipated to result in the long-term exposure of these types of particulate matter to nearby sensitive receptors.

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emission sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

Volatile Organic Compounds. Hydrocarbons are organic compounds that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as VOCs. Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O_3 and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs (see below). There are no separate health standards for VOCs as a group.

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the state of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emission sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Sensitive Receptors

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts upon those persons termed "sensitive receptors" are the most serious hazards of existing air quality conditions in the area. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution may include children, the elderly, and people with cardiovascular and chronic respiratory diseases. The SCAQMD considers that sensitive receptors may include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993).

4.3.2 Relevant Plans, Policies, and Ordinances

Federal

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The U.S. Environmental Protection Agency (EPA) is responsible for implementing most aspects of the Clean Air Act, including setting National Ambient Air Quality Standards (NAAQS) for major air pollutants, setting hazardous air pollutant standards, approving state attainment plans, setting motor vehicle emission standards, issuing stationary source emission standards and permits, and establishing acid rain control measures, stratospheric O_3 protection measures, and enforcement provisions. NAAQS are established for criteria pollutants under the Clean Air Act, which are O_3, CO, NO_2 , SO_2, PM_{10} , $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O_3, NO_2 , SO_2, PM_{10} , $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2 , SO_2, PM_{10} , and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a State Implementation Plan that demonstrates how those areas will attain the standards within mandated time frames.

State

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to the California Air Resources Board (CARB), with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour),

NO_2, PM_{10} , $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.3-1, Ambient Air Quality Standards.

Local

Although CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources.

The County is located within the jurisdiction of two air quality management districts: the SCAQMD and the AVAQMD. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county SCAB (Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties), the Riverside County portion of the Salton Sea Air Basin, and part of the Riverside County portion of the MDAB. The Salton Sea Air Basin and MDAB were previously included in a single large basin called the Southeast Desert Air Basin. On May 30, 1996, CARB replaced the Southeast Desert Air Basin with the Salton Sea Air Basin and Mojave Desert Air Basin (MDAB). In July 1997, the Antelope Valley area of MDAB was separated from the SCAQMD and incorporated into a new air district under the jurisdiction of the newly formed AVAQMD.

South Coast Air Quality Management District

The SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SCAB. The SCAQMD operates monitoring stations in the SCAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The SCAQMD's Air Quality Management Plans (AQMPs) include control measures and strategies to be implemented to attain the CAAQS and NAAQS in the SCAB. The SCAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

The SCAQMD's governing board adopted the 2012 AQMP on December 7, 2012 (SCAQMD 2013). The 2012 AQMP demonstrates attainment of the federal 24-hour $PM_{2.5}$ standard by 2014 in the SCAB through adoption of all feasible measures. The plan also updates the EPA-approved 8-hour O_3 control plan with new measures. The plan addresses state and federal planning requirements and provides updated emissions inventories, measurements, and meteorological air quality models. The plan builds on the approaches taken in the 2007 AQMP for attainment of federal PM and O_3 standards and provides the amount of reductions needed (SCAQMD 2013).

Antelope Valley Air Quality Management District

As described above, the AVAQMD, which was established in 1997 by the State Legislature, separated the Antelope Valley and northern Los Angeles County from the SCAQMD. The AVAQMD lies within the northern part of Los Angeles County and the boundaries within Los Angeles County start on the south just outside of Acton, north to the Kern County line, east to the San Bernardino County line, and west to the Quail Lake area. The AVAQMD is the local agency with the primary responsibility for the control of non-vehicular sources of air pollution throughout the Antelope Valley.

The AVAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the Antelope Valley region of the MDAB. The AVAQMD operates monitoring stations in the Antelope Valley, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The AVAQMD has a variety of air quality management and attainment plans that include control measures and strategies to be implemented to attain the CAAQS and NAAQS in the Antelope Valley. The AVAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

AVAQMD air quality management and attainment plans include the following:

- 2004 State and Federal Ozone Attainment Plan
- 2008 Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Non-Attainment Area)
- 2006 8-Hour Ozone Reasonably Available Control Technology – State Implementation Plan Analysis (RACT SIP Analysis)
- 2014 Supplement to the 8-hour Ozone RACT SIP Analysis

SCAQMD and AVAQMD Rules

Emissions that would result from mobile, stationary, and area sources during construction and operation of renewable energy facilities within the portion of the County that is within SCAQMD jurisdiction are subject to the rules and regulations of the SCAQMD. Similarly, construction and operation of renewable energy facilities within the portion of the County that is within AVAQMD jurisdiction are subject to the rules and regulations of the AVAQMD. As stated above, the SCAQMD previously had jurisdiction over the north Los Angeles County and Antelope Valley area. When the AVAQMD was established in 1997, it adopted many of the same rules that the SCAQMD enforced at that time. Accordingly, the rules applicable to the construction and operation of the project, as presented below, reflect the same rule numbering and description for both the SCAQMD and the AVAQMD. These may include the following rules:

Rule 201 – Permit to Construct: This rule establishes an orderly procedure for the review of new and modified sources of air pollution through the issuance of permits. Rule 201 specifies that any facility installing nonexempt equipment that causes or controls the emissions of air pollutants must first obtain a permit to construct from the air quality management district.

Rule 401 – Visible Emissions: This rule establishes the limit for visible emissions from stationary sources. This rule prohibits visible emissions as dark as or darker than Ringelmann No. 1 for periods greater than 3 minutes in any hour.

Rule 402 – Nuisance: This rule prohibits the discharge of air pollutants from a facility that cause injury, detriment, nuisance, or annoyance to the public or damage to business or property.

Rule 403 – Fugitive Dust: This rule requires fugitive dust sources to implement best available control measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. Air quality management district Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust.

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

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

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

Air Basin Attainment Designations

An area is designated "in attainment" when it is in compliance with the NAAQS and/or CAAQS. These standards are set by the EPA or CARB for the maximum level of a given air pollutant that

can exist in the outdoor air without unacceptable effects on human health or the public welfare with a margin of safety.

The criteria pollutants of primary concern considered in this air quality assessment include O_3, NO_2 , CO, SO_2, PM_{10} , $PM_{2.5}$, and lead. Although there are no ambient standards for VOCs or NO_x , they are important because they are precursors to O_3.

Los Angeles County Portion of the South Coast Air Basin

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 SCAB is also designated as a nonattainment area for state PM_{10} standards, and both federal and state $PM_{2.5}$ standards. The federal NO_2 standard was revised in 2010, and all areas of California have been designated unclassifiable/ attainment; however, the SCAB is 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, and as an attainment area for the federal PM_{10} standard. The County is designated nonattainment for state and federal lead standards.

The attainment classifications for these criteria pollutants are outlined in Table 4.3-2, Los Angeles County Portion of the SCAB Attainment Classification.

Los Angeles County Portion of the Mojave Desert Air Basin (Antelope Valley)

The County portion of the MDAB, also referred to as the Antelope Valley, is designated as a nonattainment area for both federal and state O_3 standards, which the EPA has classified as a "severe 15 nonattainment" area. The Antelope Valley is also designated as a nonattainment area for state PM_{10} standards. The Antelope Valley is designated as an attainment area for the state NO_2 , CO, SO_2, and lead standards and an attainment area for the federal CO and PM_{10} standards. The Antelope Valley is designated as unclassifiable/attainment area for federal NO_2 , $PM_{2.5}$, and lead standards. The entire MDAB is designated unclassifiable for federal SO_2.

The attainment classifications for these criteria pollutants are outlined in Table 4.3-3, Los Angeles County Portion of the MDAB Attainment Classification.

Air Quality Monitoring Data

The project area's local ambient air quality is monitored by the SCAQMD, AVAQMD, and CARB. CARB monitors ambient air quality at approximately 250 air quality monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level

concentrations. To illustrate County ambient air quality conditions within the SCAB and MDAB, monitoring data are presented for the non-desert area of the County and Antelope Valley.

Los Angeles County

Air quality data from 2010 through 2012 for the highest maximum emissions are provided in Table 4.3-4, Maximum Los Angeles County Ambient Air Quality Data. The number of days exceeding the ambient air quality standards is shown in Table 4.3-5, Maximum Los Angeles County Frequency of Air Quality Standard Violations.

As Table 4.3-4 demonstrates, air quality within the County is in compliance with both CAAQS and NAAQS for NO_2 , CO, and SO_2. Federal and state 1-hour and 8-hour O_3 standards were, however, exceeded during each of the last 3 years, as shown in Table 4.3-5. The PM_{10} levels monitored at the air monitoring stations exceeded the state annual standards during each of the 3 years reported, and $PM_{2.5}$ levels exceeded the federal 24-hour standards during each of the 3 years reported.

Antelope Valley

Air quality data from 2010 through 2012 for the Lancaster station, located at 43301 Division Street in the Antelope Valley, are provided in Table 4.3-6, Antelope Valley (Lancaster) Ambient Air Quality Data. The number of days exceeding the ambient air quality standards is shown in Table 4.3-7, Antelope Valley (Lancaster) Frequency of Air Quality Standard Violations.

As Table 4.3-6 demonstrates, air quality within the Antelope Valley region is in compliance with both CAAQS and NAAQS for NO_2 , CO, and PM_{10} . As the Lancaster Station does not monitor ambient SO_2 levels, ambient air quality data for SO_2 were not available. Federal and state 1-hour and 8-hour O_3 standards were exceeded during each of the last 3 years, as shown in Table 4.3-7. The $PM_{2.5}$ levels exceeded the federal 24-hour standards once in 2011; however, the next highest 24-hour $PM_{2.5}$ average was estimated to be 13 micrograms per cubic meter ($\mu g/m^3$), which is well below the federal standard of 35 $\mu g/m^3$.

4.3.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to air quality are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

A. Conflict with or obstruct implementation of applicable air quality plans of either the South Coast AQMD (SCAQMD) or the Antelope Valley AQMD (AVAQMD).

B. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

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).

D. Expose sensitive receptors to substantial pollutant concentrations.

E. Create objectionable odors affecting a substantial number of people.

In addition, Appendix G of the California Environmental Quality Act (CEQA) Guidelines (Cal. Code Regs., Title 14, § 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or pollution control district may be relied upon to determine whether the proposed project would have a significant impact on air quality. The SCAQMD *CEQA Air Quality Handbook* (SCAQMD 1993), as supplemented in March 2012, sets forth quantitative emission significance thresholds below which a project would not have a significant impact on ambient air quality. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds are exceeded (see Table 4.3-8, SCAQMD Air Quality Significance Thresholds). A project would result in a substantial contribution to an existing air quality violation of the federal or state standards for O_3 (see Table 4.3-1), which is a nonattainment pollutant, if the project's construction or operational emissions would exceed the SCAQMD VOC or NO_x thresholds shown in Table 4.3-8. These emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly (see the previous discussion of O_3 and its sources), and the effects of an individual project's emissions of O_3 precursors (VOCs and NO_x) on O_3 levels in ambient air cannot be determined through air quality models or other quantitative methods.

4.3.4 Impacts Analysis

Criterion A: Would the project conflict with or obstruct implementation of applicable air quality plans of either the South Coast AQMD (SCAQMD) or the Antelope Valley AQMD (AVAQMD)?

The County is located within the SCAB and the MDAB under the jurisdiction of the SCAQMD and AVAQMD, respectively. Construction and operation of facilities that would be established under the proposed project may result in the emissions of additional short- and long-term criteria air pollutants in conflict with the SCAQMD and the AVAQMD AQMPs.

While striving to achieve the federal standards for O_3 and $PM_{2.5}$ through a variety of air quality control measures, the 2012 SCAQMD AQMP also accommodates planned growth in the basin. Projects are considered consistent with, and would not conflict with or obstruct implementation of,

the AQMP if the growth in socioeconomic factors (e.g., population, employment) is consistent with the underlying regional plans used to develop the AQMP. As indicated in Chapter 3 of the 2012 AQMP, demographic growth forecasts for various socioeconomic categories developed by the Southern California Association of Governments (SCAG) for its 2012 Regional Transportation Plan were used to estimate future emissions in the 2012 AQMP (SCAQMD 2013).

According to the AVAQMD CEQA and Federal Conformity Guidelines, a project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable air quality management district rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan) (AVAQMD 2011).

Therefore, if the proposed project includes development that is greater than anticipated in the SCAG 2012 Regional Transportation Plan and the existing adopted General Plan growth projections, the proposed project would conflict with the implementation of the SCAQMD and AVAQMD AQMPs.

The proposed project would not induce substantial unplanned population growth because it does not propose any physical or regulatory changes that would remove a restriction to or encourage population growth in an area including, but not limited to, the following: new or extended infrastructure or public facilities and new conversion of homes to commercial or multifamily use. New or extended infrastructure or public facilities typically considered population growth inducing include extension or expansion of roadways, water facilities, and wastewater facilities because they provide the type of infrastructure necessary for new residential and commercial development. Energy production, which may be considered public infrastructure at the utility scale, is typically planned to meet current demand and respond to long-term growth projections; see Section 4.14, Public Services, for further details.

The existing adopted General Plan Housing Element[2] uses population, household, and employment projections from the SCAG Regional Transportation Plan's growth forecast. The population projections and household projections for the unincorporated County are organized by the eight SCAG subregions. SCAG has established the County's Regional Housing Needs Assessment

[2] The Housing Element was adopted by the County Board of Supervisors in February 2014 and is not a part of the 2015 Draft General Plan Update.

allocation at 30,145 units. The project entails amendments to Los Angeles County Code Title 22 (the Zoning Code) to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary meteorological (MET) towers. The proposed project would not induce substantial population growth in any area. Operation and construction of the proposed facilities would result in long- and short-term employment; however, this growth is not anticipated to exceed the County's Regional Housing Needs Assessment allocation of 30,145 units.

As explained in further detail in Section 4.13, Population and Housing, of this EIR, the proposed project would not induce population growth to the area as it does not include new residential or commercial development, nor would the project induce substantial population growth through new or extended infrastructure or public facilities. The proposed project also does not require regulatory changes including general plan amendments, specific plan amendments, zone reclassifications, sewer or water annexations, or Local Agency Formation Commission annexation actions. Additionally, the proposed project would not increase density or intensity of land use in a manner inconsistent with the existing adopted General Plan or with the General Plan Update.[3] The development of renewable energy systems and facilities pursuant to the proposed project, including project-level components (small-scale solar energy systems and utility-scale structure-mounted solar energy facilities) and program-level components (small-scale and utility-scale wind energy systems and facilities, temporary MET towers, and utility-scale ground-mounted solar energy facilities), would not induce substantial unplanned population growth. Therefore, the proposed project would not conflict with or obstruct the implementation of these air quality plans; impacts would be **less than significant**.

Criterion B: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

The entire SCAB, including the County portion, 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 SCAB is also designated as a nonattainment area for state PM_{10} standards and for both federal and state $PM_{2.5}$ standards. The County is designated nonattainment for state and federal lead standards.

Although the MDAB is designated as both nonattainment and unclassified/attainment, the County portion of the MDAB is specifically designated as a nonattainment area for both federal and state O_3 standards, which the EPA has classified as a "severe 15 nonattainment" area. The Antelope Valley is also designated as a nonattainment area for state PM_{10} standards.

[3] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

Therefore, the air pollutants of greatest concern in the County are O_3, PM_{10} , $PM_{2.5}$, and lead because of the current nonattainment status. O_3 is formed when VOCs and NO_x react in the presence of sunlight. VOC sources include any source that burns fuels (e.g., gasoline, natural gas, wood, oil), solvents, petroleum processing and storage, and pesticides. Sources of PM_{10} in both urban and rural areas include motor vehicles, wood-burning stoves and fireplaces, dust from construction, landfills, agriculture, wildfires, brush/waste burning, and industrial sources of windblown dust from open lands. Sources of $PM_{2.5}$ include the combustion organic carbon, and ammonium sulfate and ammonium nitrate from combustion sources. Although the proposed project facilitates the development of renewable energy sources in built environments and regulates the development of renewable energy sources in undisturbed environments in place of a typical fossil-fuel-based electrical generation, resulting in long-term air quality benefits, future facility development would have the potential to result in emissions related to vehicle trips. Therefore, future renewable energy systems/facilities may have the potential to violate air quality standards or contribute substantially to an existing or projected air quality violation.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Emissions associated with small-scale solar energy systems and utility-scale structure-mounted solar energy facilities could include $PM_{2.5}$, PM_{10}, NO_x, CO, and VOCs from construction activities and as a result of traffic from operations and maintenance of these systems and facilities.

Construction

Construction emissions would be generated from three principal sources: (1) engine exhaust of construction equipment and vehicles, (2) particulate emissions from soil disturbance due to vehicle activity on unpaved roads and work areas, and (3) VOCs from paints and architectural coatings. 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 the project sites and vehicle travel on unpaved roadways.

Construction activities for small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would generate a minimal amount of traffic on project-area roadways; see Section 4.16, Traffic and Circulation, for details. Construction traffic would be limited to the delivery of component parts and equipment, and if a concrete foundation must be poured or if assistance is needed to erect the solar panels, one or two additional vehicles/equipment may be required. Some small-scale solar energy systems such as roof-mounted panels may not require construction vehicles at the project site since they can typically be installed by the property owner. Only small-scale ground-mounted solar energy systems requiring substantial earthmoving activities for the construction of a support structure would require heavy, drivable equipment.

Any future small-scale solar energy systems or utility-scale structure-mounted solar energy facilities requiring earthmoving and grading activities would be subject to SCAQMD and AVAQMD Rule 403 (Fugitive Dust), which requires the implementation of dust control measures. Contractors would be required to minimize land disturbance to the extent feasible, and all areas of vehicle movement and construction work areas would be watered at least twice daily to decrease ambient particulate matter. Speed limits will be required to restrict vehicles traveling on unpaved roads, and trucks hauling soil material will be required to be covered. It is anticipated that structure-mounted solar energy systems and facilities would require minimal ground disturbance, if any.

Utility-scale structure-mounted solar facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include but are not limited to solar collector arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a

substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. As a result, these facilities are anticipated to require minimal ground disturbance, if any.

Paints or coatings may be used that could potentially emit VOCs. Paints would be used for support structures. However, the amount of paint used for these purposes would be minimal.

Due to the brief construction time period associated with the installation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities, and because traffic generated by the construction of these systems and facilities would be relatively minor, air quality impacts as a result of construction emissions would be **less than significant**.

Operations and Maintenance

The principal pollutants of concern during maintenance activities would be CO, VOCs, and NO_x that would be generated by maintenance vehicles traveling to future small-scale solar energy system sites. The actual locations and actions of future projects are unknown at this time; therefore, the actual maximum daily emission rates cannot be quantified. However, due to the fact that future maintenance activities for small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be infrequent and would occur for short periods, the emission of CO, VOCs, and NO_x from maintenance activities would be minimal and would remain below the significance thresholds, as shown in Table 4.3-8. Maintenance activities for small-scale solar energy systems usually occur once a year for inspection or for the periodic cleaning of the photovoltaic panels, and may not require vehicle trips. Often, annual maintenance consists of the property owner visually inspecting and cleaning the solar energy systems. If additional maintenance is required, it is anticipated that one vehicle and a small amount of equipment would access the site. Utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, traffic generated during operation would be limited to a cleaning and inspection once or twice annually. Due to the small number of vehicles and equipment required for maintenance at future project sites, future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities implemented under the proposed project are not expected to result in the exceedance of any federal or state air quality standards. Impacts related to emissions from small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not violate any air quality standards or contribute substantially to an existing or projected air quality violation; impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA at a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Emissions associated with small-scale wind energy systems and temporary MET towers could include $PM_{2.5}$, PM_{10}, NO_x, CO, and VOCs from construction activities and as a result of traffic from operations and maintenance of these systems.

Construction

Construction emissions would be generated from three principal sources: (1) engine exhaust of construction equipment and vehicles, (2) particulate emissions from soil disturbance due to vehicle activity on unpaved roads and work areas, and (3) VOCs from paints and architectural coatings. Particulate pollutants of concern are diesel particulate matter from construction equipment and particulates in dust raised by earthmoving and grading, if grading and earthmoving are to occur; diesel particulate matter contributes to $PM_{2.5}$ air quality emission levels. Additional emissions would be generated by any workers commuting to the project sites and vehicle travel on unpaved roadways.

Construction activities for small-scale wind energy systems and temporary MET towers may generate a minimal amount of traffic on project-area roadways. Construction traffic would be limited to the delivery of component parts and equipment (if the turbine is too large for the individual property owner to manage), and if a concrete foundation must be poured or if assistance is needed to erect the turbine tower, one or two additional vehicles/equipment may be required. Some smaller turbines, such as roof-mounted turbines, would not require construction vehicles at the project site because they can typically be installed by the property owner. Only turbines requiring substantial earthmoving activities or those requiring the delivery of larger-scale turbine tower or hub equipment would require heavy, drivable equipment.

Additionally, future small-scale wind energy systems and temporary MET towers requiring substantial earthmoving activities would be subject to SCAQMD and AVAQMD Rule 403 (Fugitive Dust), which requires the implementation of dust control measures. Contractors would be required to minimize land disturbance to the extent feasible, and all areas of vehicle movement and construction work areas would be watered at least twice daily to decrease ambient particulate matter. Speed limits will be required to restrict vehicles traveling on unpaved roads, and trucks hauling soil material will be required to be covered.

Paints or low-reflectivity finishes may be used that could potentially emit VOCs. Paints would be used for turbine components. However, the amount of paint used for these purposes would be minimal.

Due to the brief construction period associated with the installation of small-scale wind energy systems and temporary MET towers (usually lasting 1 day), and because traffic generated by the construction of these facilities would be relatively minor, air quality impacts as a result of construction emissions would be **less than significant**.

Operation and Maintenance

The principal pollutants of concern during maintenance activities would be CO, VOCs, and NO_x that would be generated by maintenance vehicles traveling to future small-scale wind energy systems and temporary MET towers. The actual locations and actions of future projects are unknown at this time; therefore, the actual maximum daily emission rates cannot be quantified. However, due to the fact that future maintenance activities for small-scale wind energy systems and temporary MET towers would be infrequent and would occur for short periods, the emission of CO, VOCs, and NO_x from maintenance activities would be minimal and would remain below the significance thresholds, as shown in Table 4.3-8. Maintenance activities for small-scale wind energy systems and temporary MET towers usually occur every 1 to 3 years, or as needs arise, and may not require vehicle trips. Often, annual maintenance consists of the property owner visually inspecting facilities with a pair of binoculars and checking that bearings are lubricated. If additional maintenance is required, it is anticipated that one vehicle and a small amount of equipment would access the site. Due to the small number of vehicles and equipment required for maintenance at future project sites, future small-scale wind energy systems and temporary MET towers implemented under the proposed project are not expected to result in the exceedance of any federal or state air quality standards. Impacts related to emissions from small-scale wind energy systems and temporary MET towers would not violate any air quality standards or contribute substantially to an existing or projected air quality violation; impacts would be less than significant.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Emissions associated with utility-scale ground-mounted renewable energy facilities could include $PM_{2.5}$, PM_{10} , NO_x , CO, and VOCs from construction activities and as a result of traffic from operations and maintenance of these facilities.

Construction

Construction emissions would be generated from three principal sources: (1) engine exhaust of construction equipment and vehicles; (2) particulate emissions from soil disturbance due to grading,

earthmoving, and vehicle activity on unpaved roads and work areas; and (3) VOCs from paints and architectural coatings. 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 the project sites and vehicle travel on unpaved roadways.

Construction activities for utility-scale ground-mounted renewable energy facilities could generate a significant amount of traffic on project-area roadways. The construction of these facilities may involve grading, trenching, construction, paving, and architectural coating phases. Construction equipment for these phases could include but would not be limited to graders, excavators, tractors/loaders/backhoes, rubber-tired dozers, forklifts, cranes, welders, bore/drill rigs, cement and mortar mixers, paving equipment, and air compressors. The time associated with these construction phases is unknown and would vary based on the scale and type of project.

Utility-scale ground-mounted renewable energy facilities requiring substantial earthmoving activities would be subject to SCAQMD and AVAQMD Rule 403 (Fugitive Dust), which requires the implementation of dust control measures. Contractors would be required to minimize land disturbance to the extent feasible, and all areas of vehicle movement and construction work areas would be watered at least twice daily to decrease ambient particulate matter. Speed limits will be required to restrict vehicles traveling on unpaved roads, and trucks hauling soil material will be required to be covered.

Additionally, paints or low-reflectivity finishes may be used that could potentially emit VOCs. The amount of paint or finishes used for these purposes is unknown and is dependent on the scale and type of project.

The County's Conditional Use Permit (CUP) discretionary review process would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and would require measures to minimize impacts to air quality, as necessary. However, as there is no guarantee at this time on a project-specific level that mitigation measures will reduce impacts to a level below significance, the proposed project may result in potentially significant impacts related to the violation of an air quality standard (Impact AQ-1).

Operations and Maintenance

The principal pollutants of concern during maintenance activities would be CO, VOCs, and NO_x that would be generated by maintenance vehicles traveling to future utility-scale ground-mounted renewable energy facilities. The actual locations and actions of future projects are unknown at this time; therefore, the actual maximum daily emission rates cannot be quantified. However, as indicated in Section 4.16, Traffic and Circulation, operational vehicle trips would be

limited to 0–10 on-site workers, on average. Occasionally, maintenance activities could involve additional trips for inspections, cleaning of the panels, or special equipment required to service the facilities. Due to the minimal operational trips that would be involved and the requirement for further discretionary review pursuant to the CUP process**,** utility-scale ground-mounted renewable energy facilities would not result in potentially significant impacts related to the violation of an air quality standard during operation; impacts would be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

Emissions associated with utility-scale structure-mounted wind energy facilities could include $PM_{2.5}$, PM_{10} , NO_x , CO, and VOCs from construction activities and as a result of traffic from operations and maintenance of these facilities.

Construction

Construction emissions would be generated from three principal sources: (1) engine exhaust of construction equipment and vehicles, (2) particulate emissions from soil disturbance due to vehicle activity on unpaved roads and work areas, and (3) VOCs from paints and architectural coatings. 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 the project sites and vehicle travel on unpaved roadways.

Construction activities for utility-scale structure-mounted wind energy facilities would generate a minimal amount of traffic on project-area roadways; see Section 4.16 for details. Construction traffic would be limited to the delivery of component parts and equipment, and trips associated with equipment installers. Like utility-scale structure-mounted solar energy facilities, utility-scale structure-mounted wind energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. As a result, these facilities are anticipated to require minimal ground disturbance, if any.

Paints or coatings may be used that could potentially emit VOCs. Paints would be used for support structures. However, the amount of paint used for these purposes would be minimal.

Due to the brief construction period associated with the installation of utility-scale structure-mounted wind energy facilities, and because traffic generated by the construction of these facilities would be relatively minor, air quality impacts as a result of construction emissions would be **less than significant**. Additionally, the Minor CUP discretionary review process would require all future utility-scale structure-mounted wind energy facilities to be evaluated under CEQA and to implement measures to minimize impacts to air quality, as necessary.

Operations and Maintenance

The principal pollutant of concern during maintenance activities would be CO, VOCs, and NO_x that would be generated by maintenance vehicles traveling to future sites. Utility-scale structure-mounted wind energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, traffic generated during operation would be limited to cleaning and inspection once or twice annually. The actual locations and actions of future projects are unknown at this time; therefore, the actual maximum daily emission rates cannot be quantified. However, due to the fact that future maintenance activities for utility-scale structure-mounted wind energy facilities would be infrequent and would occur for short periods, the emission of CO, VOCs, and NO_x from maintenance activities would be minimal and below the significance thresholds, as shown in Table 4.3-8. Impacts related to emissions from utility-scale structure-mounted wind energy facilities would not violate any air quality standards or contribute substantially to an existing or projected air quality violation. Additionally, the Minor CUP discretionary review process would require all future utility-scale structure-mounted wind energy facilities to be evaluated under CEQA and to implement measures to minimize impacts to air quality, as necessary; therefore, impacts would be **less than significant**.

Criterion C: Would the project 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)?

See Section 5, Cumulative Effects, of this EIR for a discussion of this threshold.

Criterion D: Would the project expose sensitive receptors to substantial pollutant concentrations?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA

review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~,; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Emissions associated with small-scale solar energy systems and utility-scale structure-mounted solar energy facilities could include $PM_{2.5}$, PM_{10} , NO_x , CO, and VOCs from construction activities and as a result of traffic from operations and maintenance of these systems and facilities. Additionally (as described in Section 4.3.1.2), TACs refer to a category of air pollutants that pose a present or potential hazard to human health, but which tend to have more localized impacts than criteria pollutants. Because no safe region-wide level of emissions can be established for TACs, their regulation is based on the levels of cancer risk. Project impacts may include emissions of pollutants identified by the federal and state government as TACs. The risks are mainly attributable to exposure to emissions from on-road vehicles, especially diesel particulate matter from truck trips.

Construction

Traffic generated by small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be limited to construction and maintenance vehicles traveling to and from future project sites throughout the County. As described under Criterion B, the amount of construction vehicle trips and use of construction equipment generated by future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities is anticipated to be minimal and short term. Additionally, future small-scale ground-mounted solar energy systems requiring substantial earthmoving activities would be subject to SCAQMD and AVAQMD Rule 403 (Fugitive Dust), which requires the implementation of dust control measures. Contractors would be required to minimize land disturbance to the extent feasible, and all areas of vehicle movement and construction work areas would be watered at least twice daily to decrease ambient particulate matter. Speed limits will be required to restrict vehicles traveling on unpaved roads, and trucks hauling soil material will be required to be covered.

Additionally, paints or coatings used for support structures may be used that would potentially emit VOCs. However, the amount of paint used for these purposes would be minimal.

Due to the brief construction time associated with the installation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities, and because traffic generated by the construction of these systems and facilities would be relatively minor, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities are not anticipated to create hotspots or result in TACs near sensitive receptors; impacts to sensitive receptors would be **less than significant**.

Operations and Maintenance

Trips related to maintenance would be sporadic and would not result in any permanent increases in vehicle trips that would contribute to long-term exhaust emissions resulting in substantial pollutant concentrations. Therefore, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities are not anticipated to create hotspots or result in TACs near sensitive receptors; impacts to sensitive receptors would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), ground-mounted utility-scale solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA at a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Emissions associated with small-scale wind energy systems and temporary MET towers could include $PM_{2.5}$, PM_{10}, NO_x, CO, and VOCs from construction activities and as a result of traffic from operations and maintenance of these systems. Additionally (as described in Section 4.3.1.2), TACs refer to a category of air pollutants that pose a present or potential hazard to human health, but that tend to have more localized impacts than criteria pollutants. Because no safe region-wide level of emissions can be established for TACs, their regulation is based on the levels of cancer risk. Project impacts may include emissions of pollutants identified by the federal and state government as TACs. The risks are mainly attributable to exposure to emissions from on-road vehicles, especially diesel particulate matter from truck trips.

Construction

Traffic generated by small-scale wind energy systems and temporary MET towers would be limited to construction and maintenance vehicles traveling to and from future project sites

throughout the County. As described under Criterion B, the amount of construction vehicle trips and use of construction equipment generated by future small-scale wind energy systems and temporary MET towers is anticipated to be minimal and short term. Additionally, future small-scale wind energy systems and temporary MET towers requiring substantial earthmoving activities would be subject to SCAQMD and AVAQMD Rule 403 (Fugitive Dust), which requires the implementation of dust control measures. Contractors would be required to minimize land disturbance to the extent feasible, and all areas of vehicle movement and construction work areas would be watered at least twice daily to decrease ambient particulate matter. Speed limits will be required to restrict vehicles traveling on unpaved roads, and trucks hauling soil material will be required to be covered. Additionally, paints or coatings may be used that could potentially emit VOCs. However, the amount of paint used for these purposes would be minimal.

Due to the brief construction period associated with the installation of small-scale wind energy systems and temporary MET towers, and because traffic generated by the construction of these systems would be relatively minor, small-scale wind energy systems and temporary MET towers are not anticipated to create hotspots or result in TACs near sensitive receptors; impacts to sensitive receptors would be **less than significant**.

Operations and Maintenance

As indicated in Criterion B, trips related to maintenance would be limited to once or twice a year and would not result in any permanent increases in vehicle trips that would contribute to long-term exhaust emissions resulting in substantial pollutant concentrations. Therefore, small-scale wind energy systems and temporary MET towers are not anticipated to create hotspots or result in TACs near sensitive receptors; impacts to sensitive receptors would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Emissions associated with utility-scale ground-mounted renewable energy facilities could include $PM_{2.5}$, PM_{10} , NO_x , CO, and VOCs from construction activities and as a result of traffic from operations and maintenance of these systems. Additionally (as described in Section 4.3.1.2), TACs refer to a category of air pollutants that pose a present or potential hazard to human health, but that tend to have more localized impacts than criteria pollutants. Because no safe region-wide level of emissions can be established for TACs, their regulation is based on the levels of cancer risk. Project impacts may include emissions of pollutants identified by the federal and state government as TACs. The risks are mainly attributable to exposure to emissions from on-road vehicles, especially diesel particulate matter from truck trips.

Construction

Construction activities for utility-scale ground-mounted renewable energy facilities could generate a significant amount of traffic on project-area roadways, which would be attributed to equipment deliveries and construction worker vehicles and construction equipment traveling to and from future project sites; see Section 4.16, Traffic and Circulation, for further details. The construction of these facilities may involve grading, trenching, construction, paving, and architectural coating phases. Construction equipment for these phases could include but would not be limited to graders, excavators, tractors/loaders/backhoes, rubber-tired dozers, forklifts, cranes, welders, bore/drill rigs, cement and mortar mixers, paving equipment, and air compressors.

The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and would require measures to minimize impacts to air quality, as necessary. Additionally, projects requiring substantial earthmoving activities would be subject to SCAQMD and AVAQMD Rule 403 (Fugitive Dust), which requires the implementation of dust control measures. Contractors would be required to minimize land disturbance to the extent feasible, and all areas of vehicle movement and construction work areas would be watered at least twice daily to decrease ambient particulate matter. Relative to dust control, Valley Fever is also a potential issue particularly in areas of Antelope Valley where ground-mounted utility-scale renewable energy projects would more likely occur. The *Coccidioides immitis* fungus, which causes Valley Fever, occurs naturally in some soils within the County, such as areas of Antelope Valley. The California Department of Public Health and California Department of Industrial Relations have measures to implement at worksites to reduce worker exposure to Valley Fever. A 2013 HESIS Fact Sheet entitled "Preventing Work-Related Coccidioidomycosis (Valley Fever)" recommends implementation of dust-control measures, including regular application of water during soil-disturbing activities, to reduce worker exposure to Valley Fever (California Department of Public Health 2013). Furthermore, measures to minimize fugitive dust as previously described, such as regular application of water and/or application of nontoxic soil binding agents, would be implemented to suppress fugitive dust during grubbing, clearing, grading, trenching, and soil compaction.

However, since there is no guarantee at this time on a project-specific level that implementation of the measures previously described and any future mitigation measures deemed necessary through the CUP discretionary review process will reduce impacts to a level below significance, the proposed project may result in **potentially significant** impacts related to the exposure of sensitive receptors to substantial pollutant concentrations (**Impact AQ-2**).

Operations and Maintenance

The principal pollutants of concern during maintenance activities would be CO, VOCs, and NO_x that would be generated by maintenance vehicles traveling to future utility-scale ground-mounted renewable energy facilities. The actual locations and actions of future projects are unknown at this time; therefore, the actual maximum daily emission rates cannot be quantified. However, as indicated in Section 4.16, Traffic and Circulation, operational vehicle trips would be limited to 0–10 on-site workers, on average. Occasionally, maintenance activities could involve additional trips for inspections, cleaning of the panels, or special equipment required to service the facilities. Due to the minimal operational trips that would be involved and the requirement for further discretionary review pursuant to the CUP process, utility-scale ground-mounted renewable energy facilities would not result in potentially significant impacts related to the violation of an air quality standard during operation; impacts would be **less than significant.**

Utility-Scale Structure-Mounted Wind Energy Facilities

Emissions associated with ~~and~~ utility-scale structure-mounted wind energy facilities could include $PM_{2.5}$, PM_{10} , NO_x , CO, and VOCs from construction activities and as a result of traffic from operations and maintenance of these systems. Additionally (as described in Section 4.3.1.2), TACs refer to a category of air pollutants that pose a present or potential hazard to human health, but which tend to have more localized impacts than criteria pollutants. Because no safe region-wide level of emissions can be established for TACs, their regulation is based on the levels of cancer risk. Project impacts may include emissions of pollutants identified by the federal and state government as TACs. The risks are mainly attributable to exposure to emissions from on-road vehicles, especially diesel particulate matter from truck trips.

Construction

Traffic generated by utility-scale structure-mounted wind energy facilities would be limited to construction and maintenance vehicles traveling to and from future project sites throughout the County. As described in Criterion B, the amount of construction vehicle trips and use of construction equipment generated by future utility-scale structure-mounted wind energy facilities is anticipated to be minimal and short term.

Due to the brief construction time associated with the installation of utility-scale structure-mounted wind energy facilities and because traffic generated by the construction of these facilities would be relatively minor, utility-scale structure-mounted wind energy facilities are not anticipated to create hotspots or result in TACs near sensitive receptors; impacts to sensitive receptors would be **less than significant**.

Operations and Maintenance

As indicated in Criterion B, trips related to maintenance would be limited to once or twice a year and would not result in any permanent increases in vehicle trips that would contribute to long-term exhaust emissions resulting in substantial pollutant concentrations. Therefore, utility-scale structure-mounted wind energy facilities are not anticipated to create hotspots or result in TACs near sensitive receptors; impacts to sensitive receptors would be **less than significant**.

Criterion E: Would the project create objectionable odors affecting a substantial number of people?

SCAQMD and AVAQMD Rule 402 (Nuisance) prohibits the discharge of air pollutants from a facility that cause injury, detriment, nuisance, or annoyance to the public or damage to business or property. As defined by the SCAQMD, sources of objectionable odors include landfills, agricultural operations, wastewater treatment plants, food processing plants, chemical plants, composting, dairies, and fiberglass molding facilities (SCAQMD 2005). Furthermore, objectionable odors could result from projects that emit VOCs, ammonia, CO_2, hydrogen sulfide, CH_4, alcohols, aldehydes, amines, carbonyls, esters, disulfide dust, and endotoxins during construction or operation phases.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~,; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities are not listed as a source of objectionable odors as defined by SCAQMD. During construction of

small-scale solar energy systems, diesel equipment operating at the site may generate some nuisance odors. Additionally, paints or coatings may be used that could emit odors. However, due to the brief construction period associated with the installation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities, and because traffic generated by the construction of these systems and facilities would be relatively minor, the proposed project would not generate objectionable odors or place sensitive receptors next to existing objectionable odors that would affect a considerable number of people.

Maintenance activities that use diesel equipment may also generate some nuisance odors; however, future maintenance activities for small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be infrequent and would occur for short periods. Maintenance activities for small-scale solar energy systems usually occur once a year for inspection, or for the periodic cleaning of the photovoltaic panels, and may not require vehicle trips. Maintenance activities for utility-scale structure-mounted solar energy facilities would be limited to a cleaning and inspection once or twice annually. Therefore, impacts associated with odors related to small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA at a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Similar to small-scale solar energy systems, small-scale wind energy systems and temporary MET towers are not listed as a source of objectionable odors as defined by SCAQMD. During construction of small-scale wind energy systems and temporary MET towers, diesel equipment operating at the site may generate some nuisance odors. Additionally, paints or low-reflectivity finishes may be used and could emit odors. However, due to the brief construction time period associated with the installation of small-scale wind energy systems and temporary MET towers, and because traffic generated by the construction of these facilities would be relatively minor, the proposed project would not generate objectionable odors or place sensitive receptors next to existing objectionable odors that would affect a considerable number of people.

Maintenance activities that use diesel equipment may also generate some nuisance odors; however, future maintenance activities for small-scale wind energy systems and temporary MET towers would be infrequent and would occur for short periods. Maintenance is likely to occur on an

annual basis and would either be provided by the local dealer or installer through a service and maintenance program, or if the owners have the expertise, they may elect to provide the annual maintenance service themselves. Annual maintenance mainly consists of checking electrical connections, checking that bearings are adequately lubricated, listening for any unusual noise, and inspecting blades with a pair of binoculars for any damage. Lubricant may be reapplied to bearings and could emit odors; however, the quantity of lubricant would not be enough to affect a considerable number of people. Therefore, impacts associated with odors related to small-scale wind energy systems and temporary MET towers would be less than significant.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Utility-scale ground-mounted renewable energy facilities are not considered a source of objectionable odors as defined by SCAQMD. One potential source of odor that may result from the development of utility-scale ground-mounted renewable energy facilities is diesel engine emissions. Additionally, paints or low-reflectivity finishes may be used and could emit odors. Diesel-powered equipment idling times may be limited to reduce any potential impacts, and construction activities would be short term and intermittent.

Additionally, SCAQMD and AVAQMD Rule 402 (Nuisance) prohibits the discharge of air pollutants from a facility that cause injury, detriment, nuisance, or annoyance to the public or damage to business or property.

The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and would require implementing measures to minimize impacts related to objectionable odors, as necessary.

Because the development of utility-scale ground-mounted renewable energy facilities is unlikely to generate objectionable odors that will affect a considerable number of people and all future projects would be required to comply with SCAQMD and AVAQMD Rule 402 prior to approval, the proposed project would result in **less than significant** impacts related to objectionable odors.

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities are not listed as a source of objectionable odors as defined by SCAQMD. During construction of utility-scale structure-mounted wind energy facilities, diesel equipment operating at the site may generate some nuisance odors. Additionally, paints or coatings may be used that could emit odors. However, due to the brief construction period associated with the installation of utility-scale structure-mounted wind energy facilities, and because traffic generated by the construction of these facilities would be relatively minor, the proposed project would not generate objectionable odors or place sensitive receptors next to existing objectionable odors that would affect a considerable number of people.

Maintenance activities that use diesel vehicles may also generate some nuisance odors; however, future maintenance activities for utility-scale structure-mounted wind energy facilities would be infrequent and would occur for short periods. Maintenance activities would be limited to cleaning and inspection once or twice annually. Therefore, impacts associated with odors related to utility-scale structure-mounted wind energy facilities would be **less than significant**.

4.3.5 Level of Significance Before Mitigation

Impact AQ-1 Impacts related to the violation of an air quality standard from construction of utility-scale ground-mounted renewable energy facilities under the proposed project.

Impact AQ-2 Impacts related to the exposure of sensitive receptors to substantial pollutant concentrations from construction of utility-scale ground-mounted renewable energy facilities under the proposed project.

4.3.6 Mitigation Measures

The following mitigation measures (MMs) are proposed to reduce potentially significant impacts, but not to a level less than significant:

MM AQ-1 During the environmental review process for future utility-scale ground-mounted renewable energy facilities, an air quality technical report that includes project construction phasing, timing, and operational details shall be prepared using the current air quality model available from the South Coast Air Quality Management District (SCAQMD). Project emissions shall be modeled and then evaluated based on current SCAQMD and Antelope Valley Air Quality Management District (AVAQMD) thresholds. The technical analysis shall be prepared to analyze construction and operational emissions.

If air quality impacts are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated to reduce impacts. Examples of standard construction mitigation measures include the following:

Consistent with SCAQMD and AVAQMD Rule 403, it is required that fugitive dust generated by construction activities be kept to a minimum with a goal of retaining dust on the site, by following the dust control measures listed below:

a. During clearing, ground disturbance, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.

b. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement and construction work areas damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas later in the morning, after work is completed for the day, and whenever winds exceed 15 miles per hour (mph).

c. Soil stockpiled for more than 2 days shall be covered, kept moist, or treated with nontoxic soil binders to prevent dust generation.

d. Speeds on unpaved roads shall be reduced to less than 15 mph.

e. All ground disturbance, grading, and excavation operations shall be halted when wind speeds exceed 25 mph.

f. Dirt and debris spilled onto paved surfaces at the project site and on the adjacent roadways shall be swept, vacuumed, and/or washed at the end of each workday.

g. If import/export of soil materials would be required, all trucks hauling dirt, sand, soil, or other loose material to and from the construction site shall be covered and/or a minimum 2 feet of freeboard shall be maintained.

h. At a minimum, at each vehicle egress from the project site to a paved public road, a pad consisting of washed gravel (minimum size: 1 inch) shall be installed and maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long (or as otherwise directed by the SCAQMD or AVAQMD).If a washed gravel pad is not desired, a wheel-washing system shall be installed and used to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

i. Any additional requirements of SCAQMD and AVAQMD Rule 403 shall be reviewed and complied with.

The following measures shall be adhered to during project grading / ground disturbance and construction to reduce emissions of volatile organic compounds (VOCs) and oxides of nitrogen ($\mathbf{NO_x}$) from construction equipment:

a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 4 or better diesel engines.

b. The engine size of construction equipment shall be the minimum size.

c. The amount of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest amount of equipment is operating at any one time.

d. Construction equipment shall be maintained in tune per the manufacturer's specifications.

e. Catalytic converters shall be installed on gasoline-powered equipment over 50 horsepower.

f. Electric equipment shall be used in lieu of diesel-powered equipment, where feasible.

g. Construction equipment shall be prohibited from idling in excess of 5 minutes.

h. Zero-VOC-content architectural coatings during project construction/ application of paints and other architectural coatings to reduce ozone (O_3) precursors shall be used. If zero-VOC paint cannot be used, the developer shall avoid application of architectural coatings during the peak smog season: July, August, and September. The developer shall procure architectural coatings from a supplier in compliance with the requirements of SCAQMD's Rule 1113 (Architectural Coatings).

MM AQ-2 Pursuant to a Los Angeles County (County) Board Motion of May 14, 2013, Agenda Item No. 79-B, ~~the following~~ project-specific mitigation measures and/or other project-related conditions of approval for all discretionary renewable energy projects shall include the following measures related to fugitive dust control during both construction and operation. The County Departments of Regional Planning, Public Works, and Public Health shall work jointly to refine and implement these measures respective of their individual authorities to ensure fugitive dust from renewable energy projects is controlled appropriately.

a. Continue to require a fugitive dust control plan for review and approval by the AVAQMD.

b. Require a dust plume response plan including weather stations and monitors with wind speed, wind direction, temperature, and humidity sensors.

c. Establish full or partial perimeter vegetation for both visual screening and limiting the off-site movement of dust.

d. Require reestablishment of vegetative ground cover to the greatest extent feasible throughout the array areas for the life of the subject permit.

e. Continue to require decommissioning plans to include restoration of disturbed areas with native vegetation at the end of the life of the project.

f. Require additional mitigation monitoring and inspections during the first 2 years to ensure compliance with dust mitigation measures and other conditions of project approval.

g. When appropriate, require a dedicated on-site compliance monitor during construction to independently monitor and report project compliance.

h. When appropriate, require installation of mechanical dust-monitoring devices at each project site to identify locations on site that require dust control treatment. The dust sensors will also clarify whether the project is a dust source during a wind event.

i. Require use of green-screen fencing cover during construction and use of tarps over dirt in trucks to limit off-site movement of dust and limit visual impacts during construction.

4.3.7 Level of Significance After Mitigation

Impact AQ-1, Impact AQ-2

MM AQ-1 and **MM AQ-2**, identified in Section 4.3.6, would reduce impacts, but not to a level less than significant. Therefore, impacts would remain **potentially significant and unavoidable**.

Table 4.3-1
Ambient Air Quality Standards

Pollutant	Average Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary*[c,d]	*Secondary*[c,e]
O_3	1 hour	0.09 ppm (180 μg/m^3)	—	Same as primary standard
	8 hours	0.070 ppm (137 μg/m^3)	0.075 ppm (147 μg/m^3)	
CO	8 hours	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	None
	1 hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	
NO_2	Annual arithmetic mean	0.030 ppm (57 μg/m^3)	0.053 ppm (100 μg/m^3)	Same as primary standard
	1 hour	0.18 ppm (339 μg/m^3)	0.100 ppm (188 μg/m^3)	
SO_2	1 hour	0.25 ppm (655 μg/m^3)	0.075 ppm (196 μg/m^3)	—
	3 hours	—	—	0.5 ppm (1300 μg/m^3)
	24 hours	0.04 ppm (105 μg/m^3)	0.14 ppm (for certain areas)[7]	—
	Annual	—	0.030 ppm (for certain areas)[7]	—
PM_{10}	24 hours	50 μg/m^3	150 μg/m^3	Same as primary standard
	Annual arithmetic mean	20 μg/m^3	—	
$PM_{2.5}$	24 hours	No separate state standard	35 μg/m^3	Same as primary standard
	Annual arithmetic mean	12 μg/m^3	12.0 μg/m^3	15.0 μg/m^3
Lead[f]	30-day average	1.5 μg/m^3	—	—

Table 4.3-1
Ambient Air Quality Standards

Pollutant	Average Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary*[c,d]	*Secondary*[c,e]
	Calendar quarter	—	1.5 µg/m³ (for certain areas)[g]	Same as primary standard
	Rolling 3-month average	—	0.15 µg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m³)	—	—
Vinyl chloride[f]	24 hours	0.01 ppm (26 µg/m³)	—	—
Sulfates (SO_4)	24 hours	25 µg/m³	—	—
Visibility reducing particles	8 hours (10 a.m. to 6 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%	—	—

Source: CARB 2013.

Notes: ppm= parts per million by volume; µg/m³ = micrograms per cubic meter; mg/m³= milligrams per cubic meter; PST = Pacific Standard Time.

[a] California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter—PM_{10}, $PM_{2.5}$, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Title 17, Section 70200 of the California Code of Regulations.

[b] National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth-highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[e] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[g] In 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Table 4.3-2
Los Angeles County Portion of the SCAB Attainment Classification

Pollutant	Averaging Time	State Designation/Classification	National Designation/Classification
O_3	1 hour 8 hours	Nonattainment Nonattainment	— Nonattainment (extreme)
NO_2	1 hour Annual arithmetic mean	Nonattainment	Unclassifiable/attainment
CO	1 hour 8 hours	Attainment	Attainment (maintenance)

Table 4.3-2
Los Angeles County Portion of the SCAB Attainment Classification

Pollutant	Averaging Time	State Designation/Classification	National Designation/Classification
SO_2	1 hour 24 hours Annual arithmetic mean	Attainment	Unclassifiable
PM_{10}	24 hours Annual arithmetic mean	Nonattainment	Attainment (maintenance)
$PM_{2.5}$	24 hours Annual arithmetic mean	Nonattainment	Nonattainment
Lead (Pb)	Quarter	—	Nonattainment
	3-month average	—	Nonattainment
	30-day average	Nonattainment	—
Sulfates (SO_4)	24 hours	Attainment	—
Hydrogen sulfide (H_2S)	1 hour	Unclassified	—
Vinyl chloride[a]	24 hours	Unclassified	—
Visibility-reducing particles	8 hours (10 a.m.–6 p.m.)	Unclassified	—

Sources: CARB 2014 (state designation/classification); EPA 2014 (national designation/classification).
Note:
[a] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined.

Table 4.3-3
Los Angeles County Portion of the MDAB Attainment Classification

Pollutant	Averaging Time	State Designation/Classification	National Designation/Classification
O_3	1 hour 8 hours	Nonattainment Nonattainment	— Nonattainment (Severe 15)
NO_2	1 hour Annual arithmetic mean	Attainment	Unclassifiable/attainment
CO	1 hour 8 hours	Attainment	Attainment (maintenance)
SO_2	1 hour 24 hours Annual arithmetic mean	Attainment	Unclassifiable
PM_{10}	24 hours Annual arithmetic mean	Nonattainment	Unclassifiable/attainment
$PM_{2.5}$	24 hours Annual arithmetic mean	Unclassified	Unclassifiable/attainment

Table 4.3-3
Los Angeles County Portion of the MDAB Attainment Classification

Pollutant	Averaging Time	State Designation/Classification	National Designation/Classification
Lead (Pb)	Quarter	—	Unclassifiable/attainment
	3-month average	—	Unclassifiable/attainment
	30-day average	Attainment	—
Sulfates (SO_4)	24 hours	Attainment	—
Hydrogen sulfide (H_2S)	1 hour	Unclassified	—
Vinyl chloride[a]	24 hours	Unclassified	—
Visibility-reducing particles	8 hours (10:00 a.m.–6:00 p.m.)	Unclassified	—

Sources: CARB 2014 (state designation/classification); EPA 2014 (national designation/classification).

Note:

[a] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined.

Table 4.3-4
Maximum Los Angeles County Ambient Air Quality Data
(parts per million unless otherwise indicated)

Pollutant	Averaging Time	2010	2011	2012	Most Stringent Ambient Air Quality Standard
O_3	1 hour	0.126	0.144	0.147	0.09
	8 hours	0.106	0.123	0.112	0.070
NO_2	1 hour	0.011	0.010	0.097	0.100
	Annual	0.026	0.024	0.021	0.030
CO	1 hour	6.0	6.0	5.2	20
	8 hours	3.58	4.67	3.96	9.0
SO_2	24 hours	0.003	0.013	0.004	0.04
	Annual	0.000	N/A	N/A	0.030
PM_{10}	24 hours	68 µg/m^3	63.0 µg/m^3	90.9 µg/m^3	50 µg/m^3
	Annual	N/A µg/m^3	31.9 µg/m^3	30.0 µg/m^3	20 µg/m^3
$PM_{2.5}$	24 hours	48.6 µg/m^3	94.6 µg/m^3	58.7 µg/m^3	35 µg/m^3
	Annual	17.4 µg/m^3	16.5 µg/m^3	18.0 µg/m^3	12.0 µg/m^3

Source: CARB 2014 (O_3 and $PM_{2.5}$); EPA 2014 (NO_2 , CO, SO_2, and PM_{10}).

Notes: N/A = insufficient data available to determine the value; µg/m^3 =micrograms per cubic meter.
Data taken from CARB iADAM (2014) or EPA AirData (2014) represent the highest concentrations experienced over a given year.

Table 4.3-5
Maximum Los Angeles County Frequency of Air Quality Standard Violations

Year	Number of Days Exceeding Standard					
	State 1-Hour O_3	*State 8-Hour O_3*	*National 8-Hour O_3*	*State 24-Hour PM_{10}*[a]	*National 24-Hour PM_{10}*[a]	*National 24-Hour $PM_{2.5}$*[a]
2010	39	105	69	N/A (5)	0.0 (0)	5.0 (9)
2011	55	96	76	47.1 (8)	0.0 (0)	7.1 (13)
2012	64	110	79	24.2 (43)	0.0 (0)	6.9 (10)

Source: CARB 2014.

Notes: N/A = insufficient data available to determine the value.

Data taken from CARB iADAM (2014) or EPA AirData (2014) represent the highest number of days exceeding the standard over a given year.

Exceedances of federal and state standards are only shown for $O_3$and particulate matter. All other criteria pollutants did not exceed either federal or state standards during the years shown.

[a] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 3 days, respectively. Number of days exceeding the standards is mathematical estimates of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

Table 4.3-6
Antelope Valley (Lancaster) Ambient Air Quality Data
(parts per million unless otherwise indicated)

Pollutant	Averaging Time	2010	2011	2012	Most Stringent Ambient Air Quality Standard
O_3	1 hour	0.107	0.115	0.112	0.09
	8 hours	0.096	0.100	0.096	0.070
NO_2	1 hour	0.056	0.058	0.049	0.100
	Annual	0.012	0.012	0.009	0.030
CO	1 hour	1.8	2.3	1.9	20
	8 hours	1.23	1.33	1.00	9.0
SO_2	24 hours	—	—	—	0.04
	Annual	—	—	—	0.030
PM_{10}	24 hours	36 µg/m^{3a}	49 µg/m^3	43 µg/m^3	50 µg/m^3
	Annual	N/A	N/A	18.5 µg/m^3	20 µg/m^3
$PM_{2.5}$	24 hours	15 µg/m^3	50 µg/m^3	14 µg/m^3	35 µg/m^3
	Annual	N/A	N/A	N/A	12.0 µg/m^3

Sources: CARB 2014; EPA 2014 (for 1-hour CO).

Notes: N/A = insufficient data available to determine the value; µg/m3 = micrograms per cubic meter; — = not measured at the 43301 Division Street, Lancaster, California, monitoring station.

Data taken from CARB iADAM (2014) or EPA AirData (2013) represent the highest concentrations experienced over a given year.

[a] The second PM_{10} maximum in 2010 is shown in the table because the first PM_{10} maximum reflected an extreme event and was reported to be 829 µg/m3.

Table 4.3-7
Antelope Valley (Lancaster) Frequency of Air Quality Standard Violations

Year	Number of Days Exceeding Standard					
	State 1-Hour O_3	*State 8-Hour O_3*	*National 8-Hour O_3*	*State 24-Hour PM_{10}*[a]	*National 24-Hour PM_{10}*[a]	*National 24-Hour $PM_{2.5}$*[a]
2010	11	78	45	N/A (1)	N/A (0)	N/A (0)
2011	19	76	53	N/A (0)	0.0 (0)	N/A (1)
2012	13	72	39	0.0 (0)	0.0 (0)	N/A (0)

Source: CARB 2014.

Notes: N/A = insufficient data available to determine the value.

Exceedances of federal and state standards are only shown for $O_3$and particulate matter. All other criteria pollutants did not exceed either federal or state standards during the years shown.

[a] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 3 days, respectively. Number of days exceeding the standards is mathematical estimates of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

Table 4.3-8
SCAQMD Air Quality Significance Thresholds

Pollutant	Construction	Operation
Criteria Pollutants Mass Daily Thresholds		
VOC	75 lb/day	55 lb/day
NO_x	100 lb/day	55 lb/day
CO	550 lb/day	550 lb/day
SO_x	150 lb/day	150 lb/day
PM_{10}	150 lb/day	150 lb/day
$PM_{2.5}$	55 lb/day	55 lb/day
Lead[a]	3 lb/day	3 lb/day
TACs and Odor Thresholds		
TACs[b]	Maximum incremental cancer risk ≥ 10 in 1 million Hazard index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality Standards for Criteria Pollutants[c]		
NO_2 1-hour average NO_2 annual average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.030 ppm (state)	
CO 1-hour average CO 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) 9.0 ppm (state/federal)	
PM_{10} 24-hour average PM_{10} annual arithmetic mean	10.4 μg/m3 (construction)[d] 2.5 μg/m3 (operation) 20 μg/m3	

Table 4.3-8
SCAQMD Air Quality Significance Thresholds

Pollutant	Construction	Operation
$PM_{2.5}$ 24-hour average	10.4 μg/m3 (construction)[d] 2.5 μg/m3 (operation)	

Source: SCAQMD 1993.

Notes: SCAQMD = South Coast Air Quality Management District; VOC = volatile organic compound; lb/day = pounds per day; NO_x = oxides of nitrogen; CO = carbon moNO$_x$ ide; SOx = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; TAC = toxic air contaminant; ≥ = greater than or equal to; NO_2 = nitrogen dioxide; ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.

[a] The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the proposed project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

[b] TACs include carcinogens and non-carcinogens.

[c] Ambient air quality standards for criteria pollutants based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.

[d] Ambient air quality threshold based on SCAQMD Rule 403.

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Source: Department of Regional Planning, Dec. 2013. Additional Sources: California Air Resources Board, Planning & Technical Support Division. Current as of March, 2004.

DUDEK

8124-01

FIGURE 4.3-1
Air Basins

Los Angeles County Renewable Energy Ordinance EIR

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4.4 BIOLOGICAL RESOURCES

This section describes the existing biological resources setting of the proposed project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

4.4.1 Existing Conditions

The physical environment of the unincorporated areas of the County is extremely diverse. Elevations range from sea level to 10,000 feet above mean sea level (amsl); soils vary due to prehistoric volcanic activity, marine sedimentation, and river deposition; and climates that are mild and moist near the coast change to severe temperature extremes in the high mountains and desert. The unincorporated areas contain a variety of natural features, including coastlines, islands, dunes, marshes, tidal flats, sea cliffs, hills, mountain ranges, freshwater ponds, rivers, streams, wetlands, woodlands, deserts, chaparral, grasslands, valleys, and plains. As a result, the unincorporated areas contain a varied array of biological resources, some of which are unique to the County.

Projects implemented under the proposed project could occur in areas throughout the County that support or have the potential to support the development of both small-scale renewable energy systems and utility-scale renewable energy facilities. These systems and facilities can occur within both developed and natural areas.

Portions of the County are within the California Floristic Province, which has been designated by Conservation International as one of the world's top 25 hotspots of biodiversity loss and is the only one of these hotspots in the country (Conservation International 2014). The following provides a summary of the biological diversity in the County, including a description of vegetation communities, wildlife, special-status biological resources, Significant Ecological Areas (SEAs), regional habitat linkages, and species of concern related to renewable energy projects.

Vegetation Communities

The County contains a wide variety of vegetation communities. Excluding the specialized communities of the coastal islands, Los Angeles County is generally characterized by 28 vegetation communities (Holland 1986; Mayer and Laudenslayer 1988; PCR 2000). These vegetation communities are categorized and summarized below.

Forests

Forests in the County consist of oak riparian forests, coast live oak riparian forests, southern cottonwood–willow riparian forest, mainland cherry forest, and mesquite bosque. Forests are

typically closed-canopy, tree-dominated communities that generally grow on north-facing slopes, in sheltered canyons, or near drainages, creeks, or other water features. Dominant tree species include coast live oak (*Quercus agrifolia*) or canyon oak (*Quercus chrysolepis*), which grow in the oak riparian and coast live oak riparian forests. Fremont cottonwood or black cottonwood (*Populus fremontii* or *P. trichocarpa*), Gooding's black willow (*Salix gooddingii*), or red willow (*S. laevigata*) grow in the southern cottonwood–willow riparian forest. Mainland cherry forest consists of hollyleaf cherry (*Prunus ilicifolia*) and primarily grows in the Santa Clara River watershed (located in the Santa Clarita Valley Planning Area). California sycamore (*Platanus racemosa*) and willows (*Salix* spp.) also grow along with oak trees in oak riparian forests. Mesquite bosque consists of dense thickets of mesquite trees (*Prosopis glandulosus*) that grow in desert environments where groundwater resources are sufficient to support the trees.

Woodlands

Compared to the limited variety and extent of forest habitat, woodland habitat is more prevalent and varied throughout the County. Woodlands are characterized by trees that form an open canopy and often support an assemblage of understory species. Woodland communities present within the County include a variety of oak woodlands, conifer woodlands, and desert woodlands. Woodlands dominated by oak trees include coast live oak woodland and valley oak woodland. The understory of valley oak woodlands is often a grassy savanna made up of non-native grasses, while the understory of coast live oak woodland is often a variety of chaparral plants such as blue elderberry (*Sambucus nigra* ssp. *caerulea*), chaparral currant (*Ribes malvaceum*), skunkbrush (*Rhus aromatica*), and California peony (*Paeonia californica*).

Several woodland habitats contain oaks intermixed with one or more conifer species. For example, the mixed conifer–oak woodland includes canyon oak or interior live oak (*Quercus wislizeni*) intermixed with bigcone spruce (*Pseudotsuga macrocarpa*), incense cedar (*Calocedrus decurrens*), and yellow pine (*Pinus ponderosa*) with an understory containing chaparral species. Another type of woodland habitat with a mixture of dominant tree species is the bigcone spruce–canyon oak woodland. This habitat is a dense woodland composed of canyon oak, bigcone spruce, California black oak (*Quercus kelloggii*), and California foothill pine (*Pinus sabiniana*). Areas outside this dense conifer and oak canopy are usually populated by chaparral species such as scrub oak (*Quercus berberidifolia*), manzanita, and California lilac (*Ceanothus* spp.). The foothill woodland, another type of vegetation community that has a variety of tree species, is a broad designation for tree-dominated habitats that are found in transitional areas between grasslands and montane chaparral or bigcone spruce–canyon oak woodlands. Interior live oak, blue oak (*Quercus douglasii*), valley oak (*Q. lobata*), and California foothill pine are the dominant tree species. Walnut woodland is a habitat dominated by southern California black walnut (*Juglans californica*) but also includes coast live oak as an associated species.

The County contains a variety of woodlands not dominated by oak trees. The pinyon–juniper woodland contains single-needle leaf pinyon pine (*Pinus monophylla*) and California juniper (*Juniperus californica*), along with desert mountain-mahogany (*Cercocarpus ledifolius*), California buckwheat (*Eriogonum fasciculatum*), skunkbrush, chaparral yucca (*Hesperoyucca whipplei*), penstemons (*Penstemon* spp.), and native grasses. Juniper woodland is an open formation dominated by California juniper with an understory composed of desert scrub species such as Nevada ephedra (*Ephedra nevadensis*) and Mormon tea (*E. viridis*). Joshua tree woodland is generally confined to the Antelope Valley Planning Area and is composed primarily of Joshua tree (*Yucca brevifolia*) with numerous smaller shrub species including desert mountain-mahogany, California buckwheat, skunkbrush, chaparral yucca, penstemons, and native grasses.

Scrub

Scrub communities occur throughout the varying environments of the County and include communities adapted to the desert, to dry mountain environments, and to riparian areas.

Southern willow scrub is a riparian vegetation community dominated by mulefat (*Baccharis salicifolia*), sandbar willow (*Salix exigua*), and arroyo willow (*S. lasiolepis*). This habitat occurs within and adjacent to seasonal or permanent water courses and is generally subject to frequent flooding. Mulefat scrub is another type of riparian scrub community. It requires moist soil and is composed primarily of mulefat, along with willows, sedges (*Carex* spp.), and stinging nettle (*Urtica dioica*).

Coastal sage scrub forms dense stands that may extend 3 to 4 feet in height and is dominated by California sagebrush (*Artemisia californica*), California brittlebush / bush sunflower (*Encelia farinosa* or *E. californica* in interior or coastal regions, respectively), white sage (*Salvia apiana*), black sage (*S. mellifera*), and California buckwheat. Coastal sage scrub–chaparral mixed scrub occurs on drier south- or west-facing slopes and includes a variety of sage and chaparral species.

Alluvial fan sage scrub grows in harsh substrates that are often exposed to flooding and scouring and is dominated by scalebroom (*Lepidospartum squamatum*). Desert scrub consists of low-growing, widely spaced shrubs and subshrubs that grow in open, sandy soils where groundwater is inaccessible to plants without deep roots.

Chaparral

Chaparral is found throughout southern California and consists of a variety of tall shrubs that form dense covers on steep slopes. Chaparral is generally found on slopes below 5,000 feet amsl and also occurs near the coast. The composition of chaparral depends on the location, and the different types of chaparral are generally identified according to the dominant shrub species. Examples of dominant chaparral species include chamise (*Adenostoma fasciculatum*), buck brush (*Ceanothus*

cuneatus), California lilac, scrub oak, interior live oak, and birch-leaf mountain-mahogany (*Cercocarpus betuloides*). Chaparral that grows near the coast is generally dominated by laurel sumac (*Malosma laurina*), toyon (*Heteromeles arbutifolia*), lemonadeberry (*Rhus integrifolia*), big-pod ceanothus (*Ceanothus megacarpus*), and manzanita and chamise at higher elevations.

Grassland

Grasslands are characterized by low-growing vegetation composed primarily of grasses interspersed with forbs and bulbs. Native grasslands in the County have been fragmented, with non-native grasslands composed of Mediterranean species becoming more prevalent. Native grass species found in the County typically include grasses in the genera *Elymus*, *Poa*, and *Stipa*. Non-native grass species are generally Mediterranean in origin and include brome grasses (*Bromus* spp.) and wild oats (*Avena* spp.).

Wildflower fields are a distinct type of grassland in the County. Wildflower fields consist of a mixture of herbaceous species that vary from site to site and from year to year at a given site. Typical species include California poppy (*Eschscholzia californica*), tidy tips (*Layia platyglossa*), annual lupine (*Lupinus bicolor*), purple owl's clover (*Castilleja exserta*), and broad-leaved gilia (*Aliciella latifolia*).

Marshes

Freshwater marshes and several variations on the freshwater marsh occur throughout the County in areas with still or slow-moving permanent water. Examples of areas where freshwater marshes may grow are along faults where aquifers are blocked and water accumulates at the surface or in areas adjacent to artificial ponds used by livestock. Freshwater marshes are dominated by perennial cattails (*Typha* spp.), which may reach heights of 7 feet and often form a closed canopy.

A variation on freshwater marsh includes alkali marsh, which is similar to the freshwater marsh but is generally found in environments with more salt. Species include cattails, sedges, saltgrass (*Distichlis spicata*), and common reed (*Phragmites australis*).

Saltmarsh is similar to freshwater marsh but generally occurs along the coast. Saltmarshes contain salt-tolerant species, including cattails, pickleweed (*Salicornia* spp.), saltgrass, and cordgrass (*Spartina* spp.). This vegetation community is rare in the County but can be found at the Malibu Lagoon in the Santa Monica Mountains Planning Area.

Vernal Pools

This rare vegetation community is not prevalent in the County. Vernal pools are shallow, closed basins that are lined with heavy clay soil. After rainfall, the soil temporarily holds a small pond of

surface water. Many federally designated and state-designated sensitive plant species occur in the County's vernal pools, including California Orcutt grass (*Orcuttia californica*) and spreading navarretia (*Navarretia fossalis*).

Island Vegetation Communities

The vegetation communities present in the Coastal Islands Planning Area consist of a specialized subset of the communities described above. This subset of communities is adapted to the coastal environments of Santa Catalina Island and San Clemente Island. Examples of island vegetation communities include maritime succulent scrub, southern coastal bluff scrub, island chaparral, island oak woodland, island ironwood forest, and island cherry woodland.

Wildlife

Like the varied vegetation communities within the County, the wildlife species that depend on these communities are also diverse. Wildlife species are found throughout the County, but wildlife is more diverse and more prevalent in large blocks of open, undeveloped land such as the Angeles National Forest, the Antelope Valley, and the Santa Monica Mountains. Wildlife species typically found in the County are summarized below (Mayer and Laudenslayer 1988; PCR 2000).

Mammals

Representative mammal species commonly found within the County include species such as the desert woodrat (*Neotoma lepida*), western gray squirrel (*Sciurus griseus*), California ground squirrel (*Otospermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), brush rabbit (*S. bachmani*), black-tailed jackrabbit (*Lepus californicus*), northern raccoon (*Procyon lotor*), common gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), coyote (*Canis latrans*), mountain lion (*Puma concolor*), and mule deer (*Odocoileus hemionus*).

Birds

Birds within the County include year-round residents, seasonal residents, migrating songbirds, and raptors. Representative bird species found within the County include western scrub jay (*Aphelocoma californica*), Anna's hummingbird (*Calypte anna*), California quail (*Callipepla californica*), horned lark (*Eremophila alpestris*), greater roadrunner (*Geococcyx californianus*), Bullock's oriole (*Icterus bullockii*), northern mockingbird (*Mimus polyglottos*), savannah sparrow (*Passerculus sandwichensis*), phainopepla (*Phainopepla nitens*), black-headed grosbeak (*Pheucticus melanocephalus*), California towhee (*Melozone crissalis*), spotted towhee (*Pipilo maculatus*), western meadowlark (*Sturnella neglecta*), and California thrasher (*Toxostoma redivivum*). Some representative raptor species observed within Los Angeles County include Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*B.*

lineatus), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), American kestrel (*Falco sparverius*), and barn owl (*Tyto alba*).

Reptiles

The County's reptiles are generally found in dry, open scrub, chaparral, and alluvial fan habitats. However, species such as the Pacific pond turtle (*Actinemys marmorata*), are found near streams. Representative reptile species found within the County include California side-blotched lizard (*Uta stansburiana elegans*), Great Basin fence lizard (*Sceloporus occidentalis longipes*), tiger whiptail (*Aspidoscelis tigris*), Blainville's horned lizard (*Phrynosoma blainvillii*), red racer (*Coluber flagellum piceus*), California striped racer (*Coluber lateralis lateralis*), western rattlesnake (*Crotalus oreganus*), Pacific gophersnake (*Pituophis catenifer catenifer*), and California kingsnake (*Lampropeltis californiae*).

Amphibians

Amphibians are found in moist environments throughout the County, such as ponds and riparian habitats in canyon bottoms. Representative amphibian species found within the County include northern Pacific treefrog (*Pseudacris regilla*), Baja California treefrog (*P. hypochondriaca hypochondriaca*), California toad (*Anaxyrus boreas halophilus*), and the non-native American bullfrog (*Lithobates catesbeianus*).

Special-Status Biological Resources

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 U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and special groups such as the California Native Plant Society (CNPS). Sensitive biological resources can be either sensitive plant communities or specific species. Sensitive plant communities are those that are unique, of relatively limited distribution, or of particular value to wildlife. Sensitive species are those that have been given special recognition by federal or state agencies, or those that are included in regional plans due to limited, declining, or threatened populations.

Federal Designations

Federal listing of endangered and threatened wildlife and plants is administered by the USFWS for terrestrial and freshwater species, and by the National Marine Fisheries Service for marine and anadromous species. The USFWS and National Marine Fisheries Service also recognize species of special concern that are candidates for listing. Before a plant or animal species can

receive protection under the federal Endangered Species Act (ESA), it must first be placed on the federal candidate list. An endangered species is defined as one that is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future. The USFWS also maintains a list of plants and animals that are native to the United States that are not currently regulated but that could potentially be added to the federal list in the future.

"Critical habitat" is a term within the federal ESA designed to guide actions by federal agencies (as opposed to state, local, or other agency actions) and defined as "an area occupied by a species listed as threatened or endangered within which are found physical or geographical features essential to the conservation of the species, or an area not currently occupied by the species which is itself essential to the conservation of the species."

State Designations

The CDFW implements the California ESA, which is a program that is similar in structure to, but different in detail from, the federal ESA program. The CDFW maintains a list of designated endangered, threatened, and rare plant and animal species. Listed species are either designated under the Native Plant Protection Act or designated by the Fish and Game Commission. In addition to recognizing three levels of endangerment, the CDFW affords interim protection to candidate species while they are being reviewed by the Fish and Game Commission. The CDFW also maintains a list of "Species of Special Concern," most of which are species whose breeding populations in California may face extirpation. Although these species have no legal status, the CDFW recommends consideration of these species during the impact analysis of a proposed project to protect declining populations and to avoid the need to list them as endangered.

California Native Plant Society

The CNPS maintains lists of rare, threatened, and endangered plant species found in California. This organization categorizes its list using six California Rare Plant Ranks (CRPRs). The ranks and their definitions are as follows: CRPR 1A indicates plants that are presumed extirpated in California; CRPR 1B indicates plants that are rare, threatened, or endangered in California; CRPR 2A indicates plants that are presumed extirpated in California but are more common elsewhere; CRPR 2B indicates plants that are rare, threatened, or endangered in California but are more common elsewhere; CRPR 3 indicates plants about which more information is needed (a review list); and CRPR 4 indicates plants with limited distribution (a watch list). In addition to the rare plant ranking, CNPS identifies threat ranks on a scale of 1 to 3: Threat Rank 1 is seriously threatened in California, Threat Rank 2 is moderately threatened in California, and Threat Rank 3 is not very threatened in California. The CNPS list serves as a potential candidate list for CDFW's threatened or endangered designations.

Under the provisions of Section 15380(d) of the California Environmental Quality Act (CEQA) Guidelines (Cal. Code Regs., Title 14, § 15000 et seq.), in making a determination of significance, the lead agency must treat rare non-listed plant and animal species as equivalent to listed species if such species satisfy the minimum biological criteria for listing. In general, the CDFW considers that plant species with a CNPS listing of CRPR 1A, CRPR 1B, or CRPR 2 qualify for consideration under this CEQA provision. Species designated as CRPR 3 or CRPR 4 may, but generally do not, qualify for protection under this provision.

California Natural Diversity Database

The primary information source on the distribution of special-status species in California is the California Natural Diversity Database (CNDDB) inventory, which is maintained by the CDFW (CDFW 2014). The CNDDB inventory provides the most comprehensive statewide information on the location and distribution of special-status species and sensitive natural communities. Occurrence data are obtained from a variety of scientific, academic, and professional organizations; private consulting firms; and knowledgeable individuals. The data are entered into the inventory as expeditiously as possible. The occurrence of a species of concern in a particular region is an indication that an additional population may occur at another location if habitat conditions are suitable. However, the absence of an occurrence in a particular location does not necessarily mean that special-status species are absent from the area in question, only that no data have been entered into the CNDDB inventory.

Sensitive Plant Communities in Los Angeles County

The CNDDB identifies numerous sensitive plant communities throughout the County. Sensitive plant communities in each of the Planning Areas are summarized in Table 4.4-1, Sensitive Plant Communities.

Critical Habitat

The County contains USFWS-designated critical habitat for 16 federally listed endangered or threatened species. Species with critical habitat in the County are listed in this section, and the critical habitat areas for these species are depicted on Figure 4.4-1, Critical Habitat.

<u>Wildlife Species</u>

- Arroyo toad (*Anaxyrus californicus*)
- California condor (*Gymnogyps californianus*)
- California red-legged frog (*Rana draytonii*)
- Coastal California gnatcatcher (*Polioptila californica californica*)

- Desert tortoise (*Gopherus agassizii*)
- Least Bell's vireo (*Vireo belli pusillus*)
- Mountain yellow-legged frog (*Rana muscosa*)
- Palos Verdes blue butterfly (*Glaucopsyche lygdamus palosverdesensis*)
- Santa Ana sucker (*Catostomus santaanae*)
- Tidewater goby (*Eucyclogobius newberryi*)
- Western snowy plover (*Charadrius alexandrinus nivosus*)
- Steelhead trout (*Oncorhynchus mykiss*)

Plant Species

- Braunton's milk-vetch (*Astragalus brauntonii*)
- Spreading navarretia (*Navarretia fossalis*)
- Thread-leaved brodiaea (*Brodiaea filifolia*)
- Lyon's pentachaeta (*Pentachaeta lyonii*)

Special-Status Species

Numerous special-status species can be found throughout the County (CDFW 2014; PCR 2000). Table 4.4-2, Special-Status Plant Species, and Table 4.4-3, Special-Status Wildlife Species, provide an overview of special-status plant and wildlife species known to occur in each of the County's proposed Planning Areas.

Significant Ecological Areas

SEAs are County-designated areas containing irreplaceable biological resources. The County is currently undergoing a process of updating the SEA designations ~~and policies~~. There are currently 61 SEAs designated in the existing adopted General Plan, and the revised SEA program would have 21 SEAs and 9 Coastal Resources Areas. The 21 proposed SEAs would be subject to the SEA program, while the 9 proposed Coastal Resources Areas would be regulated by the California Coastal Act (County of Los Angeles ~~2014b~~2015b, Section 5.4). Figure 4.4-2, Existing and Proposed Significant Ecological Areas, shows the existing and proposed SEAs and Coastal Resources Areas. The adoption of the new boundaries would occur upon adoption of the Antelope Valley Area Plan Update[1] and General Plan Update[2], with the exception of a number of

[1] In November 2014, the County Board of Supervisors voted to approve the Antelope Valley Area Plan Update. However, the Antelope Valley Area Plan Update is not yet officially adopted. The SEAs within the Antelope

implementation areas that are pending adoption of applicable community plans to ensure consistency with those plans.

Some SEAs are located entirely or partially outside the County's jurisdiction in cities, along the coastline, or within national forest land. SEAs located within unincorporated County areas are administered through goals, policies, and implementation programs in the County's existing adopted General Plan and by the SEA Conditional Use Permit (CUP) Ordinance. Although SEAs are located in areas throughout the County, they tend to be concentrated in and around the Angeles National Forest, the Mojave Desert, and the Santa Monica Mountains. The largest of the SEAs are located in Antelope Valley and consist primarily of high desert habitat (County of Los Angeles ~~2014a~~2015a, Figure 9.3).

The objective of the SEA program is to conserve genetic and physical diversity by designating biological resource areas that are capable of sustaining themselves into the future. However, SEAs are not wilderness preserves. Much of the land in SEAs is privately held, is used for public recreation, or abuts developed areas. The SEA program balances resource preservation with other critical public needs and private development rights.

Regional Habitat Linkages

Biological resources and important habitat areas in the unincorporated areas of the County are part of a greater network of habitat linkages that extend beyond County boundaries. As shown on Figure 4.4-3, Regional Habitat Linkages, these linkages connect biological resource areas in the County with resource areas in adjacent local jurisdictions. The areas depicted are based on Angeles National Forest boundaries, the County's SEAs, and a series of missing linkage design studies conducted by the South Coast Wildlands Project. The following linkages are important to ensure greater regional biodiversity, and species and habitat connectivity:

- The Puente Hills SEA is a linkage connecting the Puente Hills with the Chino Hills in Orange County.
- Linkages in the Santa Monica Mountains, Santa Susana and Simi Hills, Santa Clara River and Santa Felicia Creek SEAs connect to habitats in Ventura County.

Valley area that are designated in the existing adopted General Plan will remain in effect until the Antelope Valley Area Plan Update is adopted. It is reasonably foreseeable that the Antelope Valley Area Plan Update will go into effect by July 2015.

[2] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan which includes SEA boundaries will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

- The San Andreas SEA is a linkage to the Santa Clara River Watershed, San Gabriel Mountains, Antelope Valley, and Tehachapi Mountains.
- The Antelope Valley SEA serves as a linkage between the San Gabriel Mountains and the Mojave Desert, and provides wildlife movement opportunities into open areas in Kern County and San Bernardino County.

Species of Concern Related to Renewable Energy Projects

Numerous species within the County are of concern in relation to the development of renewable energy, particularly utility-scale wind and solar energy facilities. Although numerous species have the potential to be affected by these projects, several species are of particular concern related to renewable energy projects. These species were identified because they are special-status wildlife species that use habitat areas where these projects may be proposed and/or they have specific behaviors and life histories that increase their impact risk from these types of projects. These species are highlighted in the paragraphs below, and Table 4.4-4, Species of Concern Related to Renewable Energy Projects, lists these species of concern by Planning Area.

Golden Eagle

The golden eagle (*Aquila chrysaetos*) is a CDFW Watch List species and state fully protected species, a California Department of Forestry and Fire Protection sensitive species, a USFWS Birds of Conservation Concern species, and a Bureau of Land Management (BLM) sensitive species, and is protected under the federal Bald and Golden Eagle Protection Act.

It is a diurnally active species that is a permanent resident and migrant throughout California. The species is sparsely distributed throughout California and it is found in southern California occupying primarily mountain, foothill, and desert habitats. Golden eagles are more common in northeast California and the Coast Ranges than in southern California and the deserts. Foraging habitat for this species is very broad and in California includes open habitats with scrub, grasslands, desert communities, and agricultural areas. This species nests on cliffs within canyons and escarpments and in large trees (generally occurring in open habitats) and is primarily restricted to rugged, mountainous country (Garrett and Dunn 1981 and Johnsgard 1990, as cited in County of San Diego 2013). Most nests are located on cliffs or trees near forest edges or in small stands near open fields (Kochert et al. 2002).

Nest building can occur almost any time during the year, but breeding typically begins in January with nest building and egg laying occurring from February to March (WRI 2010, as cited in County of San Diego 2013). Pairs may build more than one nest and attend to them prior to laying eggs (Kochert et al. 2002). Each pair can have up to 10 nests, but only 2 to 3 are generally used in rotation from one year to the next. Some pairs use the same nest each year,

while others use alternate nests year after year, and still others apparently nest only every other year. Succeeding generations of eagles may even use the same nest (Terres 1980, as cited in County of San Diego 2013). The hatching and feeding of the nestlings takes place from April through June. After fledging, the adult eagles continue to feed the young birds until late November. As a result of the long breeding cycle, some pairs breed every other year even when food is abundant (WRI 2010, as cited in County of San Diego 2013). Other environmental conditions may also affect the breeding of eagles, including drought conditions that may affect the prey populations. The golden eagle is known to occur in the Antelope Valley and (historically) the Santa Monica Mountains. Typically, denser forms of chaparral habitat are not suitable for foraging of golden eagle.

Golden eagles are known to be at risk of collision with wind turbines due to their soaring and foraging behaviors. Golden eagles are also highly sensitive to activities near active nests. Additionally, the loss of foraging habitat due to renewable energy development, particularly ground-mounted, utility-scale facilities, has the potential to impact this species. The U.S. Fish and Wildlife Service has developed a document that identifies the inventory and monitoring efforts recommended for determining and evaluating potential golden eagle use of habitat including nest sites, roosts, and territories. It also outlines minimum monitoring techniques for understanding the level of occupancy and reproduction at territories and provides survey protocol (USFWS 2010).

Nelson's Bighorn Sheep

The Nelson's bighorn sheep (*Ovis canadensis nelsoni*) is a BLM sensitive species and a U.S. Forest Service sensitive species. The species is a state fully protected species (with limited hunting). Within the County, it is found in the Antelope Valley Planning Area.

The Nelson's bighorn sheep is also known as the "desert bighorn sheep" and occurs throughout desert mountain ranges of California. Their preferred habitat is primarily on or near mountainous terrain above the desert floor. Their eyesight is their primary way of detecting predators at sufficient distances; thus, they prefer visually open areas that are also steep and rocky. Although they mainly inhabit mountain areas, the intermountain areas of the desert floor are important for the long term viability of populations, as they use these areas to move between mountain ranges. This intermountain movement provides a genetic connection between the smaller populations that inhabit individual mountain ranges. Surface water is another important element of desert bighorn habitat. The population of Nelson's bighorn sheep has been declining. One key contributing factor is the spread of pneumonia from domestic sheep to wild bighorn sheep. Other factors include other diseases, increased mountain lion predation, and drought. Actions that impair the ability of bighorn sheep to move between mountain ranges, such as fencing, canals, and high densities of human habitation, have the potential to limit natural

colonization and gene exchange among bighorn sheep, which may threaten the viability of the population as a whole. A second potential threat is competition for surface water (BLM 2014). Renewable energy development, particularly ground-mounted utility-scale facilities, in or around habitat for this species would have the potential to impact Nelson's bighorn sheep through restricting or altering the movements of this wide-ranging species.

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is a state-listed threatened species, a USFWS Bird of Conservation Concern, and a U.S. Forest Service sensitive species. It is also listed on the United States Bird Conservation Watch List, the Audubon Watchlist, and the American Bird Conservancy Green List. It is considered a neotropical migrant (a bird that winters south of the United States). It is known to occur in the Antelope Valley, Santa Clarita Valley, San Fernando Valley, Westside, and West San Gabriel Valley Planning Areas, though breeding is currently limited to the Antelope Valley. In the Antelope Valley, the species is associated with riparian areas, windrow trees within agricultural areas, and Joshua tree woodlands and it forages in agricultural areas and grasslands.

Swainson's hawk are known to be at risk of collision with wind turbines due to their soaring behaviors. Swainson's hawks in the County are also known to nest in trees adjacent or within agricultural fields where renewable energy facilities could be developed. Additionally, the loss of foraging habitat (e.g., agricultural lands) due to renewable energy development, particularly ground-mounted, utility-scale facilities, has the potential to impact this species. The California Energy Commission and Department of Fish and Game prepared the *Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California* in June 2010 to provide background information on the species and environmental review considerations and survey protocol for this species. The document identifies considerations and impacts specific to wind energy development and provides prototypical monitoring and mitigation plans to address site-specific impacts identified to Saiwnson's hawk, including measures for injured Swainson's hawks, provisions for habitat management lands, and components for a monitoring and mitigation plan if a nest is found on the site during surveys (CDFG and CEC 2010).

Tricolored Blackbird

The tricolored blackbird (*Agelaius tricolor*) is a USFWS Birds of Conservation Concern species, a BLM sensitive species, and a CDFW endangered species (emergency listed in late 2014). It is also listed on the on the United States Bird Conservation Watch List, the Audubon Watchlist, and the American Bird Conservancy Green List (County of Los Angeles ~~2014b~~2015b, Table 5.4-2). It is found throughout the Central Valley of California and the coastal areas from Sonoma County south to San Diego County (CDFG 2008).

The tricolored blackbird forages and roosts in large flocks and breeds in large colonies. The tricolored blackbird forms the largest colonies of any North American passerine bird (Beedy and Hamilton 1999). These birds prefer to breed in freshwater marshes with dense growths of emergent vegetation dominated by cattails or bulrushes (*Schoenoplectus* spp.), but have also established colonies in willows, blackberries (*Rubus* spp.), thistles (*Cirsium* and *Centaurea* spp.), and nettles (*Urtica* spp.). More recently, the breeding habitat has included diverse upland and agricultural areas. Breeding individuals forage away from the nest sites, often well out of sight of the colony. Most individuals forage within 3 miles of colony sites but may travel up to 8 miles one way (Beedy and Hamilton 1999).

Tricolored blackbirds have the potential to be impacted by renewable energy development, particularly in the Antelope Valley where nesting colonies are known to occur in wetland areas within or adjacent to agricultural lands. The potential loss of foraging areas in the agricultural lands and grasslands adjacent to breeding colonies has the potential to impact the breeding success of colonies in this area.

California Horned Lark

The California horned lark (*Eremophila alpestris actia*) is a CDFW Watch List species and is also on the Los Angeles Audubon list of Los Angeles County's Sensitive Bird Species (County of Los Angeles ~~2014b~~2015b, Table 5.4-2). The California horned lark is a permanent resident found throughout much of the southern half of California. This species breeds and resides in the coastal region of California from Sonoma County southeast to the U.S./Mexico border, including most of the San Joaquin Valley, and east to the foothills of the Sierra Nevada (Grinnell and Miller 1944, as cited in County of San Diego 2013; Beason 1995). It is found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above the tree line. This species prefers open habitats, grassland, rangeland, montane meadows, coastal plains, and fallow grain fields, and nests on the ground. Within the County, suitable nesting and foraging habitat includes big sagebrush scrub (sparse), non-native grassland, and agriculture and field/pasture.

Horned larks are largely ground foragers but would still have the potential to be at risk of collision with wind turbines. Horned larks are ground nesters that prefer bare ground, which often include agricultural fields or sparse grasslands where renewable energy facilities could be developed. Additionally, the loss of nesting/foraging habitat (e.g., agricultural lands) due to renewable energy development, particularly ground-mounted, utility-scale facilities, has the potential to impact this species.

Burrowing Owl

The burrowing owl (*Athene cunicularia*) is a CDFW California Species of Special Concern, USFWS Birds of Conservation Concern species, and BLM sensitive species (County of Los Angeles ~~2014b~~2015b, Table 5.4-2). It occurs throughout North and Central America west of the eastern edge of the Great Plains south to Panama (County of Riverside 2008, as cited in County of San Diego 2013). The winter range is much the same as the breeding range, except that most western burrowing owls apparently vacate the northern areas of the Great Plains and the Great Basin (County of Riverside 2008, as cited in County of San Diego 2013) in winter. The majority of western burrowing owls that breed in Canada and the northern United States are believed to migrate south during September and October and north during March and April, and into the first week of May. These individuals winter within the breeding habitat of more southern populations. Thus, winter observations may include both the migratory individuals as well as the resident population (County of Riverside 2008, as cited in County of San Diego 2013).

In California, western burrowing owls are yearlong residents of flat, open, dry grassland and desert habitats at lower elevations (Bates 2006, as cited in County of San Diego 2013). They can inhabit annual and perennial grasslands and scrublands characterized by low-growing vegetation. They may be found in areas that include trees and shrubs if the cover is less than 30% (Bates 2006, as cited in County of San Diego 2013); however, they prefer treeless grasslands. Although western burrowing owls prefer large, contiguous areas of treeless grasslands, they have also been known to occupy fallow agriculture fields, golf courses, cemeteries, road allowances, airports, vacant lots in residential areas and university campuses, and fairgrounds when nest burrows are present (Bates 2006 and County of Riverside 2008, as cited in County of San Diego 2013). They typically require burrows made by fossorial (burrowing) mammals, such as California ground squirrels.

Burrowing owls would have the potential to be at risk of collision with wind turbines, but their primary nesting and foraging behaviors would limit this risk. Burrowing owls nest in burrows that are often found in agricultural fields, grasslands, and sparse scrublands where renewable energy facilities could be developed. Additionally, the loss of nesting/foraging habitat (e.g., agricultural lands) due to renewable energy development, particularly ground-mounted, utility-scale facilities, has the potential to impact this species. The California Department of Fish and Wildlife prepared a staff report on burrowing owl mitigation in March 2012. This report details the conservation goals for the burrowing owl in California, activities with the potential to take or impact burrowing owls, steps for evaluating whether a project could have an effect on burrowing owls, and mitigation methods to reduce any impacts that are identified (CDFG 2012).

Desert Tortoise

The desert tortoise (*Gopherus agassizii*) has been designated at the federal and state level as a threatened species. Within the County, this species is found in the Antelope Valley Planning Area. It occurs most commonly in desert scrub, desert wash, and Joshua tree habitats, but generally occurs in nearly every type of desert habitat. The desert tortoise requires friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms is generally preferred.

Desert tortoise is a wide-ranging desert dwelling species for which population recovery areas and habitat linkages between them have been identified. The loss of desert scrub habitat that support desert tortoise populations or habitat linkages between populations as a result of renewable energy development, particularly ground-mounted, utility-scale facilities, has the potential to impact this species.

Mohave Ground Squirrel

Mohave ground squirrel (*Xerospermophilus (Spermophilus) mohavensis*) is a state threatened species and BLM sensitive species. Within the County, this species is found in the Antelope Valley Planning Area, primarily in the north east portion of the County. It occurs in open desert habitats in the Mojave Desert region, including desert scrub, alkali scrub, Joshua tree woodland, and annual grassland.

Mohave ground squirrel is a wide-ranging desert dwelling species for which key population centers and habitat linkages between them have been identified. The loss of desert scrub habitat that support Mohave ground squirrel populations or habitat linkages between populations as a result of renewable energy development, particularly ground-mounted, utility-scale facilities, has the potential to impact this species.

Bat Species

Numerous bat species of concern have the potential to occur in the Los Angeles County region, including pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*),western mastiff bat (*Eumops perotis californicus*), silver-haired bat (*Lasionycteris noctivagans*), hoary bat (*Lasiurus cinereus*), western yellow bat (*Lasiurus xanthinus*), California leaf-nosed bat (*Macrotus californicus*), western small-footed myotis (*Myotis ciliolabrum*), long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), long-legged myotis (*Myotis volans*), Yuma myotis (*Myotis yumanensis*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), and big free-tailed bat (*Nyctinomops macrotis*) (CDFW 2014; PCR 2000). Bat species are known to be at risk of collision with wind turbines, and tree-dwelling bats and migratory bats tend to be at greatest risk of mortality at wind energy systems and facilities (Cryan and Barclay 2009; NWCC 2010).

4.4.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Endangered Species Act

The federal ESA was enacted in 1973 to conserve threatened and endangered species and their ecosystems. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered "take" under the ESA. Take of a federally listed threatened or endangered species is prohibited without a special permit. The ESA allows for take of a threatened or endangered species incidental to development activities once a habitat conservation plan (HCP) has been prepared to the satisfaction of the USFWS and an incidental take permit has been issued. The ESA also allows for the take of threatened or endangered species after consultation with the USFWS has deemed that development of the federal action associated with activities will not jeopardize the continued existence of the species.

"Critical habitat" is a term within the federal ESA designed to guide actions by federal agencies (as opposed to state, local, or other agency actions) and defined as "an area occupied by a species listed as threatened or endangered within which are found physical or geographical features essential to the conservation of the species, or an area not currently occupied by the species which is itself essential to the conservation of the species."

Federal Clean Water Act

The Clean Water Act provides wetland regulation at the federal level as well as a structure for regulating discharges into the waters of the United States. The purpose of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of all waters of the United States. Through this act, the U.S. Environmental Protection Agency is given the authority to implement pollution control programs. These include setting wastewater standards for industry and water quality standards for contaminants in surface waters. The discharge of any pollutant from a point source into navigable waters is illegal unless a permit under its provisions is acquired. In California, the State Water Resources Control Board and the nine Regional Water Quality Control Boards (RWQCBs) are responsible for implementing the Clean Water Act.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act was enacted in 1918 to protect the native migratory birds or any part, nest, or egg of such bird unless allowed by another regulation adopted in accordance with the act. Enforced in the United States by the USFWS, the Migratory Bird Treaty Act makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in the Code of Federal Regulations, Title 50, Chapter 10, including feathers or other parts, nests, eggs, or

products, except as allowed by implementing regulations (Code Fed. Regs., Title 50, Ch. 21). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered "take" and is potentially punishable by fines and/or imprisonment.

Bald and Golden Eagle Protection Act and Draft Eagle Conservation Plan Guidance

The Bald and Golden Eagle Protection Act was enacted in 1940 to prohibit the take, transport, or sale of bald eagles (*Haliaeetus leucocephalus*), their eggs, or any part of an eagle except where expressly allowed by the secretary of the interior. This act was amended in 1962 to extend this protection to the golden eagle.

The Eagle Conservation Plan Guidance (ECPG), dated April 2013, was prepared by the USFWS and is intended to provide a means of compliance with The Bald and Golden Eagle Protection Act by:

1. Conducting early pre-construction assessments to identify important eagle use areas
2. Avoiding, minimizing, and/or compensating for potential adverse effects to eagles
3. Monitoring for impacts to eagles during construction and operation

The ECPG calls for scientifically rigorous surveys, monitoring, assessment, and research designs proportionate to the risk to eagles. The ECPG describes a process by which wind energy developers can collect and analyze information that could lead to a programmatic permit to authorize unintentional take of eagles at wind energy systems and facilities.

The ECPG provides recommendations for the development of eagle conservation plans (ECPs) to support issuance of eagle programmatic take permits for wind energy systems and facilities. Programmatic take permits will authorize limited, incidental mortality and disturbance of eagles at wind energy systems and facilities, provided effective offsetting conservation measures that meet regulatory requirements are carried out. To comply with the permit regulations, conservation measures must avoid and minimize take of eagles to the maximum degree, and, for programmatic permits necessary to authorize ongoing take of eagles, advanced conservation practices must be implemented such that any remaining take is unavoidable. Further, for eagle management populations that cannot sustain additional mortality, any remaining take must be offset through compensatory mitigation such that the net effect on the eagle population is, at a minimum, no change. The ECPG interprets and clarifies the permit requirements in the regulations in the Bald and Golden Eagle Protection Act (Code Fed. Regs., Title 50, §§ 22.26 and 22.27) and does not impose any binding requirements beyond those specified in the regulations.

The USFWS recommends that ECPs be developed in five stages. Each stage builds on the prior stage, such that together the process is a progressive, increasingly intensive look at likely effects of the development and operation of a particular site and configuration on eagles. The ECPG recommends that project proponents employ fairly specific procedures in their site assessments so the data can be combined with that from other facilities in a formal adaptive management process. This adaptive management process is designed to reduce uncertainty about the effects of wind facilities on eagles. Project proponents are not required to use the recommended procedures, but if different approaches are used, the proponent should coordinate with the USFWS in advance to ensure that proposed approaches will provide comparable data.

The ECPG recommends that at the end of each of the first four stages, project proponents determine which of the following categories the project, as planned, falls into (1) high risk to eagles, little opportunity to minimize effects; (2) high or moderate risk to eagles, but with an opportunity to minimize effects; or (3) minimal risk to eagles.

Projects in category 1 should be moved, significantly redesigned, or abandoned because the project would likely not meet the regulatory requirements for permit issuance. Projects in categories 2 and 3 are candidates for ECPs. USFWS biologists are available to work with project proponents in the development of their ECP. Frequent close coordination from the outset is beneficial to the USFWS and the project proponents, and it will help ensure the ECP meets the needs and requirements of all parties involved.

Land-Based Wind Energy Guidelines

In response to increasing wind energy development in the United States, USFWS created the Land-Based Wind Energy Guidelines (Guidelines) for reducing adverse effects to fish and wildlife resources from wind energy projects. The voluntary guidelines will help shape the smart siting, design and operation of the nation's growing wind energy economy. The final version of the guidelines was released by the Department of the Interior in March 2012.

The Guidelines are intended to:

1. Promote compliance with relevant wildlife laws and regulations
2. Encourage scientifically rigorous survey, monitoring, assessment, and research designs proportionate to the risk to species of concern
3. Produce potentially comparable data across the nation
4. Avoid, minimize, and, if appropriate, compensate for potential adverse effects on species of concern and their habitats
5. Improve the ability to predict and resolve effects locally, regionally, and nationally

The Guidelines are founded upon a tiered approach for assessing potential adverse effects to wildlife species of concern and their habitats. The tiered approach is an iterative decision-making process for collecting information in increasing detail; quantifying the possible risks of proposed wind energy projects to wildlife species of concern and habitats; and evaluating those risks to make siting, construction, and operation decisions. Subsequent tiers refine and build on issues raised and efforts undertaken in previous tiers. At each tier, a set of questions is provided to help the developer evaluate the potential risk associated with developing a project at the given location. The tiered approach guides a developer's decision process as to whether or not the selected location is appropriate for wind development. This decision is related to site-specific conditions regarding potential species and habitat effects.

The tiers address issues as follows:

- Tier 1 – Preliminary evaluation or screening of potential sites (landscape-scale screening of possible project sites)
- Tier 2 – Site characterization (broad characterization of one or more potential project sites)
- Tier 3 – Field studies to document wildlife and habitat on site and predict project impacts
- Tier 4 – Post-construction studies to estimate impacts; fatality and habitat studies
- Tier 5 – Other post-construction studies and research

The Guidelines are based on best available methods and metrics to help answer the questions posed at each tier. Research on wind energy effects on wildlife species of concern and their habitats is ongoing and new information is made available on a regular basis. Substantial variability can exist among project sites and, as such, methods and metrics should be applied with the flexibility to address the varied issues that may occur on a site-by-site basis, while maintaining consistency in the overall tiered process. As research expands and provides new information, these methods and metrics will be updated to reflect current science.

West Mojave Plan

The West Mojave Plan was originally planned as a BLM land use plan amendment and HCP that would cover over 9 million acres in five counties (Inyo, Kern, Los Angeles, San Bernardino, and Riverside). The purpose of the plan was to create a comprehensive strategy to conserve and protect the desert tortoise, the Mohave ground squirrel, and nearly 100 other sensitive desert species, as well as the natural communities where they reside. In addition, the plan was envisioned as a streamlined program for complying with the requirements of the California and federal ESAs.

The West Mojave Plan was adopted as a BLM land use plan amendment, but the HCP for non-federal lands was not adopted or implemented.

Draft Desert Renewable Energy Conservation Plan

Portions of the unincorporated areas of the County are within the Draft Desert Renewable Energy Conservation Plan (DRECP). The DRECP was drafted to provide binding, long-term endangered species permit assurances and to facilitate review and approval of compatible renewable energy projects. The purpose of the DRECP is to protect desert ecosystems while allowing for development of renewable energy projects. Implementation of the DRECP would include an adaptive management and monitoring program to promote ecosystem conservation. The DRECP is a BLM land use plan amendment, a natural community conservation plan under the Natural Community Conservation Planning Act, and a general conservation plan (i.e., programmatic HCP) under the federal ESA.

State

California Endangered Species Act

The California ESA, similar to the federal ESA, contains a process for listing of species and regulating potential impacts to listed species. State threatened and endangered species include both plants and wildlife, but do not include invertebrates. The designation "rare" applies only to California native plants. State threatened and endangered plant species are regulated largely under the Native Plant Preservation Act in conjunction with the California ESA. State threatened and endangered animal species are legally protected against take. The California ESA authorizes the CDFW to enter into a memorandum of agreement for take of listed species to issue an incidental take permit for a state-listed threatened and endangered species only if specific criteria are met.

State Species of Special Concern

"Species of special concern" is an informal designation used by the CDFW for some declining wildlife species that are not officially listed as endangered, threatened, or rare. This designation does not provide legal protection but signifies that these species are recognized as vulnerable by CDFW.

California Fully Protected Species

Species that are California fully protected include those protected by special legislation for various reasons, such as the white-tailed kite.

California Native Plant Society

The CNPS is a private organization that monitors and protects sensitive plant species. The CNPS compiles and maintains a list of rare, threatened, or endangered plant species that often serves as a basis for designation of a species as threatened or endangered by CDFW.

California Fish and Game Code

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Take is defined in Section 86 as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Section 5050 lists protected amphibians and reptiles. Section 3515 prohibits take of fully protected fish species. Eggs and nests of all birds are protected under Section 3503, nesting birds (including raptors and passerines) under Sections 3503.5 and 3513, birds of prey under Section 3503.5, and fully protected birds under Section 3511. Migratory non-game birds are protected under Section 3800. Mammals are protected under Section 4700.

Streambed Alteration Agreements

CDFW has jurisdictional authority over wetland resources associated with rivers, streams, and lakes under California Fish and Game Code, Section 1602. CDFW has the authority to regulate all work under the jurisdiction of California that would substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed.

Natural Community Conservation Planning Act of 1991

The state Natural Community Conservation Planning (NCCP) Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land use. The CDFW is the principal state agency implementing the NCCP program. Natural community conservation plans developed in accordance with the NCCP provide for comprehensive management and conservation of multiple wildlife species, and they identify and provide for the regional or area-wide protection and perpetuation of natural wildlife diversity while allowing compatible and appropriate development and growth. There are no natural community conservation plans within the County.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act provides for statewide coordination of water quality regulations. The California State Water Resources Control Board was established as the

statewide authority, and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis.

Local

Significant Ecological Areas

SEAs are County-designated areas containing irreplaceable biological resources, as described in Section 4.4.1. These designated areas represent the wide-ranging biodiversity of the County and contain its most important biological resources. The objective of the SEA program is to conserve genetic and physical diversity by designating biological resource areas that are capable of sustaining themselves into the future. However, SEAs are not wilderness preserves. Much of the land in SEAs is privately held, is used for public recreation, or abuts developed areas. The SEA program balances resource preservation with other critical public needs and private development rights.

Marina del Rey Local Coastal Program

The Marina del Rey Local Coastal Program consists of a land use plan and a local implementation plan. The land use plan, as amended, was approved by the County Board of Supervisors in March 2011 and certified by the California Coastal Commission in February 2012. This land use plan is a refinement of policy in the existing adopted General Plan and provides a basis for its implementation.

Santa Catalina Island Local Coastal Program

The Local Coastal Program developed for Santa Catalina Island helps ensure that the majority of the island will remain in open space. It recognizes the requirements of the Open Space Easement Agreement, which was signed between the County and the Santa Catalina Island Company in 1974. This agreement seeks to preserve the natural character of the island and to improve access and recreational opportunities. The Local Coastal Program also includes the goals of the Santa Catalina Island Conservancy, which was established soon after the Open Space Easement Agreement was signed. The conservancy was created with the purpose of managing the island's biological and other natural resources.

Santa Monica Mountains Local Coastal Program

Portions of the unincorporated areas within the Santa Monica Mountains Planning Area are within the Santa Monica Mountains Local Coastal Program. Santa Monica Mountains Local Coastal Program consists of the Land Use Plan and implementing actions including the Local Implementation Program, a series of ordinance sections added to the Zoning Code, Title 22 of

the Los Angeles (L.A.) County Code. Implementing actions also include a zoning consistency program. The Land Use Plan, which is a component of the Los Angeles County General Plan, replaced the Malibu Land Use Plan, which was certified by the Coastal Commission in 1986. The Land Use Plan includes some of the policies of the 1986 Land Use Plan, new policies, and many policies from the Santa Monica Mountains North Area Plan. The Local Implementation Plan establishes district-wide, zone-specific, and area-specific regulations for new development and for the protection and management of the Coastal Zone's unique resources.

Los Angeles County Code

Title 12, Brush and Vegetation

Chapter 12.28 in Title 12 of the L.A. County Code lists regulations, requirements, and approvals pertaining to removal or destruction of native vegetation.

Title 12, Wildflowers

Chapter 12.36 in Title 12 of the L.A. County Code designates 10 areas within the unincorporated portions of the County as wildflower reserve areas. General development of renewable energy, with the exception of rooftop solar, would not be allowed in the wildflower reserve areas.

Title 22, Hillside Management Areas Ordinance

Hillside Management Areas are hillsides with a natural slope of 25% or steeper. The Hillside Management Area designation helps preserve the physical character and scenic value of hillsides, as there are provisions in place to encourage protection of scenic hillside views and conservation of natural hillside character. Residential development exceeding certain density thresholds within Hillside Management Areas are currently subject to a CUP. The Hillside Management Areas Ordinance is being revised as part of the ~~2014~~ 2015 Draft General Plan Update. Upon adoption of the revised Hillside Management Areas Ordinance, projects involving 15,000 cubic yards or more of cut and fill would require a CUP in Hillside Management Areas to ensure compliance with hillside management provisions.

Title 22, Oak Tree Ordinance

This ordinance protects trees of the oak genus that are 25 inches or more in circumference, as measured 4.5 feet above mean natural grade. Oaks with more than one trunk are protected if the combined circumference of any two trunks is at least 38 inches, as measured 4.5 feet above mean natural grade. Additionally, trees that have been provided as a replacement tree without first obtaining an oak tree permit are protected. Protection of the trees that fall subject to this

ordinance involves not cutting, destroying, removing, relocating, or damaging, or encroaching into the protected zone of the tree.

Oak Woodlands Conservation Management Plan

This plan was adopted by the County in 2012 to aid the County in complying with California Public Resources Code, Section 21083.4, which requires oak woodland conservation. The Oak Woodlands Conservation Management Plan provides consistent conservation policy for oak woodlands through a voluntary conservation strategy. The Oak Woodlands Conservation Management Plan also extends CEQA consideration of impacts to oak woodlands that are made up of oaks greater than 5 inches in diameter as measured 4.5 feet above mean natural grade. The plan also recognizes that effective oak conservation is more extensive than the protection of individual trees.

4.4.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to biological resources are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

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).

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.

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.

D. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

E. Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% 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, Joshua trees, southern California black walnut, etc.).

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).

G. Conflict with the provisions of an adopted state, regional, or local habitat conservation plan.

4.4.4 Impacts Analysis

Criterion A: ***Would the project 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)?***

Criterion B: ***Would the project 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?***

Special-status species are those species that have been given special recognition by federal, state, or local conservation agencies and organizations due to limited, declining, or threatened population sizes. Candidate species are eligible for listing as federal or state threatened or endangered species. The proposed project applies to the entire unincorporated County; therefore, it includes sites with candidate, sensitive, or special-status species within the County. The proposed project would allow development of small-scale and utility-scale wind and solar energy systems and facilities and temporary meteorological (MET) towers that could adversely affect candidate, sensitive, or special-status species.

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 CEQA, Section 1602 of the California Fish and Game Code, Section 404 of the federal Clean Water Act, and the state's Porter-Cologne Water Quality Control Act. In addition, sensitive natural communities within the County include County-designated SEAs, Sensitive Environmental Resource Areas (SERAs) in the Santa Monica Mountains Local Coastal Program and vegetation communities recognized as sensitive by the state.

SERAs are separated into two categories: H1 habitat and H2 habitat. H1 habitat consists of areas of highest biological significance, rarity, and sensitivity. H1 habitats include: alluvial scrub; coastal bluff scrub; dune; native grassland and scrub with a strong component of native grasses or forbs;

riparian; native oak, sycamore, walnut and bay woodlands; and rock outcrop habitat types. Wetlands, including creeks, streams, marshes, seeps and springs, are also H1 habitat. H1 habitat also includes populations of plant and animal species (1) listed by the State or Federal government as rare, threatened or endangered, listed by NatureServe as State or Global ranked 1, 2, or 3, and identified as California Species of Special Concern, and/or (2) CNPS-listed 1B and 2 plant species, normally associated with H1 habitats, where they are found within H2 or H3 habitat areas.

H2 habitat consists of areas of high biological significance, rarity, and sensitivity that are important for the ecological vitality and diversity of the Santa Monica Mountains Mediterranean Ecosystem. H2 habitat includes large, contiguous areas of coastal sage scrub and chaparral-dominated habitats. A subcategory of H2 habitat is H2 "High Scrutiny" habitat, which comprises (1) CNDDB-identified rare natural communities; (2) plant and animal species listed by the State or Federal government as rare, threatened, or endangered; listed by NatureServe as State or Global-ranked 1, 2, or 3, and identified as California Species of Special Concern; and/or (3) CNPS-listed 1B and 2 plant species, normally associated with H2 habitats. H2 "High Scrutiny" habitat also includes (1) plant and animals species listed by the State or Federal government as rare, threatened or endangered, listed by NatureServe as State or Global-ranked 1, 2, or 3, and identified as California Species of Special Concern, and/or (2) CNPS-listed 1B and 2 plant species, normally associated with H1 habitats, where they are found as individuals (not a population) in H2 habitat.

State-recognized sensitive vegetation communities 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 communities listed in a CNDDB 9-quad analysis.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

As described in Section 4.4.1, the County supports habitat for federally and state-listed endangered or threatened species, as well as numerous other special-status species and plant communities. Future small-scale solar energy systems may be located in areas that would impact a candidate, sensitive, or special-status species. Small-scale solar energy systems may either be ground mounted or affixed to a structure. Although small-scale solar energy systems would result in new permanent structures, these small-scale solar energy systems would be developed within existing residential, commercial, industrial, or agricultural land uses as accessory structures because by definition the small-scale solar energy systems would be used primarily for on-site energy generation. Some small-scale solar energy systems would be structure mounted and would not result in any ground disturbance, while others would be ground mounted and would involve ground disturbance.

Utility-scale structure-mounted solar facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include but are not limited to solar collector arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. As a result, these facilities are anticipated to require minimal ground disturbance, if any. Additionally, utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.

Small-scale ground-mounted solar energy systems would require discretionary permits and project-level CEQA review when they are proposed in areas zoned O-S and W. The majority of the San Gabriel Mountains are within the W zone, and the O-S zone encompasses smaller areas scattered primarily throughout the Santa Monica Mountains, the San Gabriel Mountains, and the Antelope Valley; see Figure 4.10-1. Because the O-S and W zones allow for fewer types of development than the County's commercial, residential, agricultural, and manufacturing zones, these zones contain a concentration of open space, including habitat and natural communities. Therefore, because the small-scale solar energy systems involving ground disturbance would

require project-level CEQA review in some of the County's more biologically sensitive areas, such projects would be required, on a project level, to incorporate measures to minimize, avoid, and/or mitigate impacts to special-status species, habitat for special-status species, and natural communities. However, while the O-S and W zones contain a concentration of biological resources, special-status species, habitat, and natural communities are also present in the County's other zones, in which small-scale ground-mounted solar energy systems would be permitted without project-level CEQA review.

In addition to the potential for the loss of special-status species and their habitat, reflection and refraction of light from solar panels and mirrors can appear as a water body and may act to attract wildlife, especially water birds (Lovich and Ennen 2011; McCrary et al. 1986). This has been referred to as the "lake effect" and it has the potential to result in bird collision, especially where projects are sited near existing water bodies like playas, reservoirs, and sedimentation basins. Bird collisions may occur as a result of larger structure-mounted installations or where multiple small-scale energy systems are operated adjacent to one another.

The development of small-scale solar energy systems would also have the potential to impact special-status species and their habitat through indirect effects associated with system construction and/or operation. Although these solar energy systems would be small scale, the following construction-related indirect effects on biological resources have been identified for solar projects and have the potential to result from these projects:

- Dust and dust suppression effects have the potential to result in habitat degradation in areas surrounding ground-mounted solar energy systems during construction and operations.
- Introduction of invasive plant species during construction and operations of ground mounted solar energy systems has the potential to degrade species habitat and alter fire potential in and around these sites.

Increased human presence due to construction and operation of the small-scale solar energy systems and utility-scale structure-mounted solar facilities, especially in rural areas in the Santa Clarita Valley and Antelope Valley Planning Areas, has the potential to result in the indirect effects to special-status species and their habitat through increased potential for vehicle collisions, spread of disease, and wildlife behavioral avoidance. The limitations specified in the proposed Zoning Code amendments related to the size and type of solar energy system or facility addressed under the project-level components would reduce the impacts of the proposed project on special-status species and their habitats. Furthermore, the provision that ground-mounted solar energy systems undergo a discretionary permit process and project-level CEQA review when sited in an O-S or W zone would also reduce the impacts of ground disturbance in these zones, which generally contain a concentration of biologically sensitive areas relative to other zones in the County. Additionally, the environmental design

considerations included in the proposed Zoning Code amendments, such as setbacks and height restrictions (see Table 3-2, Environmental Design Considerations, in Chapter 3, Project Description, of this environmental impact report (EIR)), would minimize potential impacts to special-status species. However, direct and indirect impacts to special-status species and their habitat through both structure-mounted and ground-mounted small-scale solar energy systems and utility-scale structure-mounted solar facilities would still constitute **potentially significant** impacts to candidate, sensitive, or special-status species or sensitive natural communities (**Impact BIO-1**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under the CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

~~Although future small-scale wind energy systems would not be allowed within O-S and W zones, they may be located in areas that would impact a candidate, sensitive, or special-status species. These future systems may require ground disturbance that could affect sensitive species if habitat is present.~~ Small-scale wind energy systems and temporary MET may require ground disturbance that could affect sensitive species if habitat is present.

Per ~~the proposed~~Part 15 of the existing Zoning Code ~~amendments~~, a single small wind turbine has a rated capacity of 50 kilowatts or less. Based on this capacity size, a worst-case footprint would entail a foundation size of approximately 441 square feet and excavation of roughly 61 cubic yards. ~~The proposed project would potentially allow for m~~Multiple small turbines or temporary MET towers are potentially allowable on eligible properties (however, properties must be at least 0.5 acres in size). ~~More specifically, up to two small wind turbines are permitted for every 5 gross acres of land.~~ Two small wind turbines would amount to approximately 882 square feet of ground disturbance and roughly 122 cubic yards of excavation. Some small wind turbines would be structure mounted and would not result in any ground disturbance.

In addition to ground disturbance resulting in habitat impacts, wind turbines of any size can potentially result in collisions with sensitive bat species and avian species, sometimes called bird and bat strikes. Lighting on wind turbines and MET towers, potentially required for aviation safety in certain locations, has the potential to attract birds. ~~Under the zoning conformance review requirements, small wind turbines~~ Small-scale wind energy systems and

temporary MET towers ~~would be~~are limited to a height of no more than either (1) 35 feet measured from the finished grade to the top of the ~~blade in the vertical position~~tower for lots of less than 1 ~~gross~~ acre in size; (2) 65 feet measured from the finished grade to the top of the ~~blade in the vertical position~~tower for lots from 1 ~~gross~~ acre to less than 2 ~~gross~~ acres in size; or (3) 85 feet measured from the finished grade to the top of the ~~blade in the vertical position~~tower for lots 2 gross acres or greater in size. Small-scale wind turbines would have relatively small blades on a vertical or horizontal axis. In addition, these small towers would sometimes occur near existing development. Trellis-style towers and guy wires would not be allowed under the proposed project; therefore, the potential for bird perching or nesting would be reduced, thereby further decreasing the risk of bird collisions. ~~Temporary MET towers are required to be less than 200 feet in height and to be spaced at least 500 feet from any other temporary MET tower.~~

Small wind turbines are generally not tall enough to be within migratory wildlife flight paths; however, the siting of these systems relative to existing topography and landforms would influence the degree of impact from small turbines on migratory wildlife. Migrating and resident raptors, including golden eagle, conserve energy by using deflective updrafts or thermals to go long periods without flapping their wings. Because these species are adapted to use even the smallest and weakest of thermals, they can migrate at elevations low to the ground. They may also fly low to the ground when weather conditions are poor or while they are foraging. Therefore, significant impacts to these types of avian species, including golden eagle, Swainson's hawk, tricolored blackbird, California horned lark, and burrowing owl, as discussed in Section 4.4.1, may still occur. Bat species, as described in Section 4.4.1, would also have the potential to be impacted through collision with wind turbines. ~~As previously mentioned, small turbines may also include guy wires for structural support, or aboveground power lines. Guy wires and power lines can be additional collision hazards, and~~ Additionally, power lines can result in electrocutions.

The potential removal of small areas of sensitive habitat and potential for bird and bat species collision would still potentially result in significant impacts to candidate, sensitive, or special-status species. Any project within an SEA will be subject to the SEA program and review by the SEA Technical Advisory Committee (SEATAC). SEATAC is an advisory committee to the County Department of Regional Planning that consists of experts who specialize in various areas of biology in Los Angeles County. The committee advises on the adequacy of analyses provided in biological reports; provides recommendations intended to help the applicant avoid, minimize, or mitigate biological impacts; and advises on a project's compatibility with the SEA. Additionally, for federal and state-listed species, consultation with regulatory agencies for compliance with state and federal ESAs and species-specific permits and mitigation may be required with the intent that the information provided for the SEA Ordinance can also be used for other regulatory agency review.

~~Pursuant to the environmental design considerations as listed in Table 3-2, all small-scale wind energy systems 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 and conditions of approval may be imposed by the County Regional Planning Commission, consistent with these guidelines, to reduce significant impacts to birds and bats. Additionally, p~~Per the proposed Zoning Code amendments, small-scale wind energy systems shall not be constructed closer than 300 feet (or five times the system height, whichever is greater) from bat roosting sites, recorded open space easements and publicly designed preserve areas, or riparian areas and wetlands. Small-scale wind energy systems shall not be constructed closer than ~~4,000 feet to~~one mile a known golden eagle nest site. Vegetation in the area within 10 feet of the wind tower base, if applicable, shall be mowed but existing vegetation root systems shall not be removed.

Although the proposed Zoning Code amendments include provisions to avoid and minimize biological impacts from small-scale wind energy systems and temporary MET towers (for example, guy wires are prohibited on both ground-mounted small-scale wind energy systems and ground-mounted temporary MET towers), there is no guarantee at this time on a project-specific level that these provisions will reduce impacts to a less than significant level. Therefore, implementation of small-scale wind energy systems and temporary MET towers under the proposed project may result in **potentially significant** impacts related to candidate, sensitive, or special-status species or sensitive natural communities (**Impact BIO-2**).

Utility-Scale Ground-Mounted Renewable Energy Facilities

The proposed Zoning Code amendments related to utility-scale ground-mounted renewable energy facilities (both wind and solar) consist of updated definitions and requirements related to setbacks, noise, height, and locations where the facilities are permitted. All utility-scale ground-mounted renewable energy facilities will be subject to discretionary review and will be required to obtain a CUP; see Table 3-3, Renewable Energy Permit Requirements, of this EIR. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to candidate, sensitive, or special-status species, as necessary. CEQA requires proposed projects to provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. As part of this process, necessary biological resource surveys are conducted and a biological resources assessment is prepared to analyze project-specific impacts. Additionally, utility-scale ground-mounted renewable energy facilities would be prohibited within adopted SEAs~~ designated in the existing adopted General Plan~~.

~~Pursuant to the environmental design considerations as listed in Table 3-2, all utility-scale ground-mounted 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 and conditions of approval may be imposed by the County Regional Planning Commission, consistent with these guidelines, to reduce significant impacts to birds and bats. These guidelines are intended to help guide the process of assessing and mitigating risk to species and their habitat, and implementation of these guidelines would ameliorate the effects of wind projects on the bird and bat species discussed in Section 4.4.1.~~ The actual locations and details of future utility-scale ground-mounted wind energy projects are unknown at this time; therefore, impacts as a result of the development of future large wind turbines cannot be fully analyzed. However, a summary of potential impacts is discussed below. Additionally, per the proposed Zoning Code amendments, utility-scale ground-mounted wind energy facilities shall not be constructed closer than ~~2,000 feet (or five times the system height, whichever is greater)~~0.25 miles from ~~to~~ adopted SEAs, ~~bat roosting sites,~~ recorded open space easements and publicly designed preserve areas, or riparian areas and wetlands. Utility-scale ground-mounted wind energy facilities shall not be closer than 0.5 miles from bat roosting sites, nor ~~constructed~~ shall they be closer than ~~4,000 feet~~one mile to a known golden eagle nest site. Vegetation in the area within 10 feet of the wind tower base shall be mowed, if necessary, but existing vegetation root systems shall not be removed.

Ground Disturbance

Temporary impacts to native vegetation communities and special-status species habitats could potentially result from the construction of the transmission line and poles, overhead and underground collector lines, new and existing roadways, temporary parking areas, temporary batch plants, or temporary staging areas. Permanent impacts to native vegetation communities and special-status species habitats could potentially result from the construction of solar panels and wind turbines, support facilities, and access roads. Vegetation management around project facilities is also considered a permanent impact to vegetation communities. Wildlife could potentially be displaced within the construction areas. Site clearing, access roads, transmission lines, and arrays of turbine towers may displace some species or fragment continuous habitat areas into smaller, isolated tracts. Habitat fragmentation is of particular concern for species that require large expanses of habitat for activities such as breeding, foraging, and sheltering (USFWS 2011a, as cited in County of San Diego 2013), including golden eagle, Nelson's bighorn sheep, desert tortoise, and Mohave ground squirrel, as discussed in Section 4.4.1. Additionally, use of access roads around the construction area has the potential to result in the direct mortality of less mobile wildlife and rare plants.

Avian and Bat Risks

The operation of utility-scale ground-mounted solar and wind facilities poses risks to resident and migrating avian and bat species from collision and electrocution. The operation of utility-scale ground-mounted solar facilities can result in lake effect collisions due to reflection and refraction of light from solar panels and mirrors (see Project-Level Components) and electrocution from associated transmission lines. The proposed project would prohibit concentrated solar thermal devices, which use lenses or mirrors to focus or reflect a large area of sunlight onto a small area; therefore, impacts from solar flux effects on birds and bats would not be expected.

The operation of utility-scale ground-mounted wind facilities can result in bird or bat collision with turbines and electrocution from associated transmission lines.

The Pacific Flyway is a large general migratory pathway for birds in the western United States. The Pacific Flyway through Los Angeles County is generally split into a coastal route and an interior route. The interior route of the Pacific Flyway is centered in the Coachella Valley and the Salton Sea in the south and the Central Valley of California in the north. Birds migrating via the Pacific Flyway may cross over the project area.[5] In general, most birds migrate at an altitude greater than 500 feet above ground level (Smithsonian Migratory Bird Center 2014; Lincoln et al. 1998), which is higher than large wind turbines and associated transmission infrastructure; however the migratory altitude varies depending on the species, the time of day/year, weather conditions, and other factors. Additionally, the Antelope Valley region of Los Angeles County has been identified by the Audubon Society as an Important Bird Area that provides habitat for a variety of bird species, including mountain plovers (*Charadrius montanus*), tricolored blackbird, Le Conte's thrasher (*Toxostoma lecontei*), and horned larks. Therefore, the development of utility-scale solar and wind facilities, especially in the Antelope Valley region, poses the potential risk of bird and bat collision, including resident and migratory species.

Avian and bat lake effect collisions from utility-scale solar energy facilities need further study (Lovich and Ennen 2011). McCrary et al. (1986) found substantial impacts to birds over a 40-week study, including 70 bird fatalities involving 26 species (81% of the fatalities from collisions). Water birds have been found to be at higher risk of collision with the reflective surfaces of solar projects because solar panels and mirrors can look like water bodies, which attract these avian species.

Related to utility-scale ground-mounted wind energy facilities, USFWS states that "collision risk to individual birds and bats at a particular wind turbine may be the result of complex interactions among species distribution, relative abundance, behavior, weather conditions

(e.g., wind, temperature) and site characteristics" (USFWS 2011a, as cited in County of San Diego 2013). Collision risk for a particular bird or bat species depends on species abundance as well as species behavior related to the rotor-swept zone. Bird and bats of particular concern in the County are highlighted in Section 4.4.1 and include golden eagle, Swainson's hawk, tricolored blackbird, California horned lark, burrowing owl, and a suite of bat species. If individuals of a species (e.g., common ravens (*Corvus corax*)) frequently occupy the rotor-swept zone but effectively avoid collisions, they are also at low risk of collision with a turbine (USFWS 2011a, as cited in County of San Diego 2013). Conversely, if the behavior of individual bird or bat species frequently places them in the rotor-swept zone, and they do not actively avoid turbine blade strikes, they are at higher risk of collisions with turbines regardless of abundance. For a given species (e.g., red-tailed hawk), increased abundance increases the likelihood that individuals will be killed by turbine strikes, although the risk to individuals will remain about the same (USFWS 2011a, as cited in County of San Diego 2013). A study by de Lucas et al. (2008) describes certain bird species (e.g., turkey vultures (*Cathartes aura*)) that have high wing loading for flight and consequently have less maneuverability and are at a greater risk of collision with objects. The risk to a population increases as the proportion of individuals in the population at risk to collision increases. At some project sites, bat fatalities may be higher than bird fatalities, but the exposure risk of bats is not fully understood (USFWS 2011a, as cited in County of San Diego 2013).

The golden eagle is of particular concern as it is a CDFW Watch List and Fully Protected Species, as well as a USFWS Birds of Conservation Concern species, and is protected under the Bald and Golden Eagle Protection Act. It is a diurnally active species that is a permanent resident and migrant throughout California. This species could forage over locations within the project area and may nest in coast live oak woodlands or on cliffs. Based on studies of the flight behavior of golden eagles, they are at lower risk than species such as red-tailed hawks because only 15% of their flight behaviors put them in a vulnerable position for turbine collisions (flying at the height of the rotor plane), and they spend less time within close proximity (within 50 meters, or 164 feet) to turbines (Thelander et al. 2003). Additionally, golden eagles have high maneuverability and therefore may be able to use high-powered flight to avoid collisions with turbines. Despite these behavioral characteristics of golden eagles, the development of large wind turbines still poses risks to golden eagles, especially during foraging.

Indirect Impacts

Indirect impacts to avian species include reduced nesting and breeding densities and the social ramifications of those reductions, loss or modification of foraging habitat, loss of population vigor and overall population density, increased isolation between habitat patches, loss of habitat refugia, attraction to modified habitats, effects on behavior, physiological disturbance, and habitat unsuitability (USFWS 2011a, as cited in County of San Diego 2013). The proposed project could

also result in indirect impacts to sensitive species due to construction activities. These include impacts to breeding birds from construction noise and lighting, habitat impacts due to increased drainage, and exposure of individuals to additional toxins from runoff from streets and landscaping. As noted under Project-Level Components, common indirect impacts from the operation and construction of these projects include the degradation of species habitat from dust and dust suppression effects, introduction of invasive species, and increased human presence.

Although the proposed Zoning Code amendments include provisions to avoid and minimize biological impacts from utility-scale ground-mounted renewable energy facilities, direct and indirect impacts to special-status species and their habitat would still constitute **potentially significant** impacts to candidate, sensitive, or special-status species or sensitive natural communities (**Impact BIO-3**).

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities are affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, and are used to generate energy primarily for off-site use. This definition includes all on-site and off-site equipment and accessory structures related to the facility, including but not limited to wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Like utility-scale structure-mounted solar energy facilities, utility-scale structure-mounted wind energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations if there is an increase in load, but these upgrades would most~~ly~~ likely be contained within the existing fence line. In addition, the California Public Utilities Commission regulates such upgrades to substations. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. As a result, these facilities are anticipated to require minimal ground disturbance, if any.

Utility-scale structure-mounted wind energy systems would undergo a discretionary permit process and project-level CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would require implementing measures to minimize impacts to candidate, sensitive, or special-status species, as necessary. CEQA requires proposed projects to provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant

impacts identified for the project. As part of this process, necessary biological resource surveys are conducted and a biological resources assessment is prepared to analyze project-specific impacts, if necessary. Additionally, the environmental design considerations included in the proposed Zoning Code amendments, such as setbacks and height restrictions (see Table 3-2), would minimize potential impacts to special-status species. However, direct and indirect impacts to special-status species and their habitat would still result in **potentially significant** impacts to candidate, sensitive, or special-status species or sensitive natural communities (**Impact BIO-4**).

Criterion C: ***Would the project 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?***

Any future renewable energy projects built pursuant to the proposed project would be required to comply with all federal and state regulations that ensure the protection of wetlands and waters. Small-scale solar energy systems that are structure mounted would not likely result in impacts to these features. Small-scale solar energy systems that are ground mounted may result in impacts to these features, but impacts would be avoided, minimized, and otherwise mitigated according to the existing laws and regulations described below. Small-scale ground-mounted solar energy systems would require project-level CEQA review under the Minor CUP process in O-S and W zones, which generally contain a concentration of the County's riparian resources. Additionally, all utility-scale projects would be prohibited in the O-S zone, and all small-scale wind energy systems, temporary MET towers, and utility-scale projects would be prohibited in the W zone. ~~Additionally, in O-S and W zones, all small-scale wind energy systems, temporary MET towers, utility-scale ground-mounted renewable energy facilities, and utility-scale structure-mounted wind energy facilities would be prohibited.~~ Pursuant to the proposed project, small-scale wind energy systems would also be set back from riparian areas and wetlands a minimum of 300 feet or five times the system height, whichever is greater.

Ground-mounted utility-scale renewable energy facilities implemented under the proposed project are likely to result in impacts to wetland and water~~s~~ features, especially if sited on large undeveloped tracts in the Santa Clarita Valley or Antelope Valley Planning Areas. Such utility-scale renewable energy development would require project-level CEQA review under the CUP process and would require compliance with the existing federal and state laws described below. All utility-scale ground-mounted renewable energy facilities would be prohibited within adopted SEAs ~~designated in the existing adopted General Plan~~ and, as previously stated, would be prohibited in O-S and W zones. Additionally, pursuant to the proposed project, utility-scale

wind energy facilities would be set back from riparian areas and wetlands a minimum of ~~2,000 feet or five times the system height, whichever is greater~~0.25 miles.

The U.S. Army Corps of Engineers issues Section 404 permits under the Clean Water Act, 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 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 Clean Water Act Section 404 permit by the U.S. Army Corps of Engineers, 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 U.S. Army Corps of Engineers and RWQCB. At the state level, the Lake and Streambed Alteration Program requires written notification to the CDFW prior to altering a riparian or wetland area associated with a lake, river, or stream, including federally protected wetlands.

All project-level and program-level components would be required to comply with existing federal and state laws regarding wetlands and waters; therefore, impacts would be **less than significant.**

Criterion D: Would the project 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?

The project area consists of the entire unincorporated County. Therefore, future renewable energy projects may be built on land that contains native habitat and possibly on land that provides wildlife corridors or native wildlife nursery sites. During operations, there is also the potential for these renewable energy projects to interfere with bird and bat movements and migration. However, all utility-scale projects would be prohibited in the O-S zone, and all small-scale wind energy systems, temporary MET towers, and utility-scale projects would be prohibited in the W zone. ~~However, in O-S and W zones, all small-scale wind energy systems, temporary MET towers, utility-scale ground-mounted renewable energy facilities, and utility-scale structure mounted wind energy facilities would be prohibited.~~ Additionally, all utility-scale ground-mounted renewable energy facilities would be prohibited within adopted SEAs ~~designated in the existing adopted General Plan~~. Further, per the proposed Zoning Code amendments, small-scale wind energy systems and utility-scale wind energy facilities shall be set back from bat roosting sites, recorded open space easements and publicly designed preserve areas, riparian areas and wetlands, known golden eagle nest sites, and adopted SEAs (utility-scale ground-mounted provision only), which would reduce the potential impact of the project on bird and bat movement.

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. Wildlife corridors and habitat linkages have informed the mapping of proposed SEAs 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. The current mapping of wildlife corridors in the County is extensive; however, the reality of wildlife movement corridors and linkages is more complex and manifests 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, future project proponents should be aware of any natural drainage courses, streams, or ridgelines in the area, as these can be important wildlife and plant linkage areas.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility scale structure mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities developed pursuant to the proposed project 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. As described under Criteria A and B, the proposed project would allow for small-scale solar energy systems and utility-scale structure-mounted solar energy facilities that may have the potential to impact birds and bats 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 use both the coastal and inland areas, and typical birds of the Pacific Coast route include gulls, ducks, and other water birds. Therefore, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may result in **potentially significant** impacts associated with interference with wildlife movement or nursery sites (**Impact BIO-5**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under the CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Per ~~the proposed~~Part 15 of the existing Zoning Code ~~amendments~~, a single small wind turbine has a rated capacity of 50 kilowatts or less. Based on this capacity, a worst-case footprint would entail a foundation size of approximately 441 square feet and excavation of roughly 61 cubic yards. ~~The proposed project would potentially allow for m~~Multiple small turbines or temporary MET towers are potentially allowable on eligible properties (however, properties must be at least 0.5 acres in size). ~~More specifically, up to two small wind turbines are permitted for every 5 gross acres of land.~~ Two small wind turbines would amount to approximately 882 square feet of ground disturbance and roughly 122 cubic yards of excavation. Some small wind turbines would be structure mounted and would not result in ground disturbance. As described in Criteria A and B, the proposed project would allow for wind energy systems that may have the potential to impact birds and bats that travel within the County. The environmental design considerations included in the proposed Zoning Code amendments, ~~such~~ as well as the existing setbacks and height restrictions in Part 15 of the existing Zoning Code~~(see Table 3-2)~~, would minimize potential impacts on avian and bat movement. The Pacific Flyway is a major north–south migration route for birds that travel between North and South America. In Southern California, birds use both the coastal and inland areas, and typical birds of the Pacific coast route include gulls, ducks, and other water birds. Therefore, small-scale wind energy systems and temporary MET towers may result in **potentially significant** impacts associated with interference with wildlife movement or nursery sites (**Impact BIO-6**).

Utility-Scale Ground-Mounted Renewable Energy Facilities

The proposed Zoning Code amendments related to utility-scale ground-mounted renewable energy facilities (both wind and solar) consist of updated definitions and requirements related to setbacks, noise, height, and locations where the facilities are permitted. All utility-scale

ground-mounted renewable energy facilities will be subject to discretionary review and required to obtain a CUP; see Table 3-3. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to wildlife movement and nursery sites to the greatest extent possible. CEQA requires proposed projects to provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. As part of this process, necessary biological resource surveys are conducted and a biological resources assessment is prepared to analyze project-specific impacts. As described in Section 4.4.1, maintenance of movement and habitat linkage function for Nelson's bighorn sheep, desert tortoise, and Mohave ground squirrel would be of particular concern in the desert region. Additionally, all utility-scale ground-mounted renewable energy facilities would be prohibited within adopted SEAs ~~designated in the General Plan~~.

~~Pursuant to the proposed project, all utility-scale ground-mounted 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 and conditions of approval may be imposed by the County Regional Planning Commission, consistent with these guidelines, to reduce significant impacts to birds and bats.~~ Additionally, per the proposed project, utility-scale ground-mounted wind energy facilities shall not be constructed closer than ~~2,000 feet (or five times the system height, whichever is greater)~~ 0.25 miles from ~~to~~ adopted SEAs~~, bat roosting sites~~, recorded open space easements and publicly designed preserve areas, or riparian areas and wetlands. Utility-scale ground-mounted wind energy facilities shall not be closer than 0.5 miles from bat roosting sites, nor ~~constructed~~ shall they be closer than ~~4,000 feet~~one mile to a known golden eagle nest site. Vegetation in the area within 10 feet of the wind tower base shall be mowed, if necessary, but existing vegetation root systems shall not be removed.

Utility-scale ground-mounted renewable energy facilities would require large areas of land and may impact existing wildlife corridors. Additionally, indirect effects may occur from increased noise levels or nighttime lighting, which would potentially discourage movement within corridors and linkages. Although these projects would require future discretionary review, there is no guarantee at this time that impacts would be mitigated to a less than significant level. Therefore, impacts would be **potentially significant** (**Impact BIO-7**).

Utility-Scale Structure-Mounted Wind Energy Facilities

Future utility-scale structure-mounted wind energy facilities developed pursuant to the proposed project may introduce new vertical elements that could interfere with wildlife

movement or impede the use of nursery sites. As described under Criteria A and B, the proposed project would allow for utility-scale structure-mounted wind energy facilities that may have the potential to impact birds and bats that travel within the County. The environmental design considerations included in the proposed Zoning Code amendments, such as setbacks and height restrictions (see Table 3-2), would minimize potential impacts to special-status species. The Pacific Flyway is a major north–south migration route for birds that travel between North and South America. In Southern California, birds use both the coastal and inland areas, and typical birds of the Pacific coast route include gulls, ducks, and other water birds. Therefore, utility-scale structure-mounted wind energy facilities may result in **potentially significant** impacts associated with interference with wildlife movement or nursery sites (**Impact BIO-8**).

Criterion E: ***Would the project 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, Joshua trees, southern California black walnut, etc.)?***

The project area consists of the entire unincorporated County. Therefore, some future temporary MET towers and renewable energy systems/facilities may be built on land that contains oak woodlands or other unique native trees. However, all utility-scale projects would be prohibited in the O-S zone, and all small-scale wind energy systems, temporary MET towers, and utility-scale projects would be prohibited in the W zone. ~~in O-S and W zones, all utility-scale ground-mounted renewable energy facilities, utility-scale structure-mounted wind energy facilities, temporary MET towers, and small-scale wind energy systems would be prohibited.~~ Additionally, all utility-scale ground-mounted renewable energy facilities would be prohibited within adopted SEAs ~~designated in the existing adopted General Plan~~. Oak trees (*Quercus* spp.) and woodlands are relatively widespread throughout the non-desert portions of the County and are especially prevalent within the Santa Monica Mountains Coastal Zone and in many of the SEAs. In addition to oaks and oak woodlands, other unique species of trees in the County include juniper (*Juniperus* spp.), Joshua trees, southern California black walnut, and California sycamore. All 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. Under the CEQA Guidelines, projects may result in a potentially significant impact if two or more trees are impacted.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA

review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility scale structure mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities developed pursuant to the proposed project may introduce new structures or vertical elements or may result in ground disturbance. Although small-scale solar energy systems are allowed in O-S and W zones, small-scale ground-mounted solar energy systems would be subject to project-level CEQA review when developed in these zones and would be required to implement measures to minimize impacts involving conversion of oak woodlands in these zones. However, because oak woodlands are contained within a variety of zoning designations in the County, and because small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not be subject to further discretionary review in the County's other zones, future projects may result in **potentially significant** impacts to oak woodlands if any exist on site (**Impact BIO-9**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under the CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Future small-scale wind energy systems or temporary MET towers 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 proximity. If oak trees were to be impacted by project-level activities, an oak tree permit would

be required, the conditions of which would reduce impacts. Nevertheless, the County does not extend protected tree status to species other than oak trees and it cannot be guaranteed that the oak tree permit would reduce all impacts to oak trees to a level less than significant; therefore, impacts would be **potentially significant** (**Impact BIO-10**).

Utility-Scale Ground-Mounted Renewable Energy Facilities

Future utility-scale ground-mounted renewable energy facilities 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 proximity. If oak trees were to be impacted by project-level activities, an oak tree permit would be required, the conditions of which would reduce impacts to less than significant. Nevertheless, the County does not extend protected tree status to species other than oak trees and it cannot be guaranteed that the oak tree permit would reduce all impacts to oak trees to a level less than significant; therefore, impacts would be **potentially significant** (**Impact BIO-11**).

Utility-Scale Structure-Mounted Wind Energy Facilities

Future utility-scale structure-mounted wind energy facilities developed pursuant to the proposed project would introduce new vertical elements. Utility-scale structure-mounted wind energy systems would be prohibited in O-S and W zones and would be subject to project-level CEQA review; therefore, implementation of measures to minimize impacts involving conversion of oak woodland would be required. If oak trees were to be impacted by project-level activities, an oak tree permit would be required, the conditions of which would reduce impacts to less than significant. Nevertheless, the County does not extend protected tree status to species other than oak trees and it cannot be guaranteed that the oak tree permit would reduce all impacts to oak trees to a level less than significant; therefore, impacts would be **potentially significant** (**Impact BIO-12**).

Criterion F: ***Would the project 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)?***

Criterion G: ***Would the project conflict with the provisions of an adopted state, regional, or local habitat conservation plan?***

The project area consists of the entire unincorporated County. The project area includes 10 wildflower reserve areas designated in Title 12, Chapter 12.36 of the L.A. County Code. However,

all utility-scale projects would be prohibited in the O-S zone, and all small-scale wind energy systems, temporary MET towers, and utility-scale projects would be prohibited in the W zone. ~~in O-S and W zones, all small-scale wind energy systems, temporary MET towers, utility-scale ground-mounted renewable energy facilities, and utility-scale structure-mounted wind energy facilities would be prohibited.~~ Additionally, all utility-scale ground-mounted renewable energy facilities would be prohibited within adopted SEAs ~~designated in the existing adopted General Plan~~. Future renewable energy projects would not be developed within wildflower reserve areas, with the exception of small-scale solar facilities, which would be allowed in the O-S zone. Oak trees and woodlands are relatively widespread throughout the non-desert portions of the County and are especially prevalent within the Santa Monica Mountains Coastal Zone and in many of the SEAs. Future renewable energy projects would need to be consistent with the County's Oak Tree Ordinance and identify whether any unique species of trees are present within the site. Projects subject to CEQA would analyze any potential impacts to oak woodlands. Impacts to these unique species of trees may result from clearing or grading activities, and planting ornamental plants in close proximity. Future renewable energy facilities located in or around SERAs would be subject to development standards of the Santa Monica Mountains Local Coastal Plan, would require review by the ERB, and may require additional mitigation measures to reduce potential impacts to biological resources.

At the state level, the CDFW has created several regional natural community conservation plans. 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 natural community conservation plans within the County.

At the federal level, the ESA requires a project seeking an incidental take permit for one or more federally listed species to develop a habitat conservation plan (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.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility scale structure mounted solar energy facilities proposed in R-1 zones would require a~~

~~CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities developed pursuant to the proposed project may introduce new structures or vertical elements or may result in ground disturbance. Although these small-scale solar energy systems are allowed in O-S and W zones, ground-mounted solar energy systems would be subject to project-level CEQA review when developed in these zones and would therefore be required to implement measures to minimize impacts involving conflict with local policies and ordinances. However, because small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not require any further discretionary review in the majority of the County's zones, future projects may conflict with local policies or ordinances protecting biological resources; therefore, impacts would be **potentially significant** (**Impact BIO-13**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under the CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Future small-scale wind energy systems or temporary MET towers would not be allowed within ~~O-S and~~ W zones. Additionally, future small-scale wind energy systems or temporary MET towers located in or around SERAs would be subject to development standards of the Santa Monica Mountains Local Coastal Plan, would require review by the ERB, and may require additional mitigation measures to reduce potential impacts to biological resources. Any project within an SEA will be subject to the SEA program and review by SEATAC. SEATAC is an advisory committee to the County Department of Regional Planning that consists of experts who specialize in various areas of biology in Los Angeles County. SEATAC advises on the adequacy of analyses provided in biological reports; provides recommendations intended to help the applicant avoid, minimize, or mitigate biological impacts; and advises on a project's compatibility with the SEA. Additionally, for federal and state-listed species, consultation with

regulatory agencies for compliance with state and federal ESAs and species-specific permits and mitigation may be required with the intent that the information provided for the SEA Ordinance can also be used for other regulatory agency review. Therefore, future small-scale wind energy systems and temporary MET towers are not anticipated to conflict with any local policies or ordinances protecting biological resources, and impacts would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Future utility-scale ground-mounted renewable energy facilities would not be allowed within O-S and W zones. Additionally, future renewable energy facilities located in or around SERAs would be subject to development standards of the Santa Monica Mountains Local Coastal Plan, would require review by the ERB, and may require additional mitigation measures to reduce potential impacts to biological resources. These future facilities would also undergo a discretionary permit process and project-level CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to avoid conflicts with any local policies or ordinances to the greatest extent feasible. However, as there is no guarantee at this time on a project-specific level that mitigation measures will reduce impacts to a less than significant level, the proposed project may result in **potentially significant** impacts related to conflicts with local policies or ordinances protecting biological resources (**Impact BIO-14**).

Utility-Scale Structure-Mounted Wind Energy Facilities

Future utility-scale structure-mounted wind energy facilities would not be allowed within O-S and W zones. Additionally, these future facilities located in or around SERAs would be subject to development standards of the Santa Monica Mountains Local Coastal Plan, would require review by the ERB, and may require additional mitigation measures to reduce potential impacts to biological resources. These future facilities would also undergo a discretionary permit process and project-level CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to avoid conflicts with any local policies or ordinances to the greatest extent feasible. However, as there is no guarantee at this time on a project-specific level that mitigation measures will reduce impacts to a less than significant level, the proposed project may result in **potentially significant** impacts related to conflicts with local policies or ordinances protecting biological resources (**Impact BIO-15**).

4.4.5 Level of Significance Before Mitigation

Without mitigation, the following impacts under the proposed project would be potentially significant:

Impact BIO-1 Impacts to candidate, sensitive, or special-status species or sensitive natural communities resulting from implementation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities under the proposed project.

Impact BIO-2 Impacts to candidate, sensitive, or special-status species or sensitive natural communities resulting from implementation of small-scale wind energy systems and temporary MET towers under the proposed project.

Impact BIO-3 Impacts to candidate, sensitive, or special-status species or sensitive natural communities resulting implementation of utility-scale ground-mounted renewable energy facilities under the proposed project.

Impact BIO-4 Impacts to candidate, sensitive, or special-status species or sensitive natural communities resulting from implementation of utility-scale structure-mounted wind energy facilities under the proposed project.

Impact BIO-5 Impacts related to interference with wildlife movement or nursery sites resulting from implementation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities under the proposed project.

Impact BIO-6 Impacts related to interference with wildlife movement or nursery sites resulting from implementation of small-scale wind energy systems and temporary MET towers under the proposed project.

Impact BIO-7 Impacts related to interference with wildlife movement or wildlife corridors resulting from implementation of utility-scale ground-mounted renewable energy facilities under the proposed project.

Impact BIO-8 Impacts related to interference with wildlife movement or nursery sites resulting from implementation of utility-scale structure-mounted wind energy facilities under the proposed project.

Impact BIO-9 Impacts to oak woodlands resulting from implementation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities under the proposed project.

Impact BIO-10 Impacts to unique native trees other than protected oaks resulting from implementation of small-scale wind energy systems or temporary MET towers under the proposed project.

Impact BIO-11 Impacts to unique native trees other than protected oaks resulting from implementation of utility-scale ground-mounted renewable energy facilities under the proposed project.

Impact BIO-12 Impacts to unique native trees other than protected oaks resulting from implementation of utility-scale structure-mounted wind energy facilities under the proposed project.

Impact BIO-13 Impacts related to conflicts with local policies or ordinances protecting biological resources resulting from implementation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities under the proposed project.

Impact BIO-14 Impacts related to conflicts with local policies or ordinances protecting biological resources resulting from implementation of utility-scale ground-mounted renewable energy ~~systems~~ facilities under the proposed project.

Impact BIO-15 Impacts related to conflicts with local policies or ordinances protecting biological resources resulting from implementation of utility-scale structure-mounted wind energy facilities under the proposed project.

4.4.6 Mitigation Measures

The following mitigation measures (MMs) would reduce potentially significant impacts to biological resources, but not to a level less than significant:

MM BIO-1 All renewable energy projects that require a discretionary permit shall be subject to CEQA review, and when impacts to biological resources are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated. Examples of standard mitigation measures may include, but are not limited, to the following:

- Establish buffers of a minimum of 100 feet between solar panels and the edge of existing lakes, reservoirs, wetlands, playas, and other water features.
- For significant impacts to sensitive species, natural communities, or ecological processes (like wildlife movement or hydrological processes) resulting from ground disturbance impacts associated with ground-

mounted renewable energy facilities, compensatory mitigation would generally involve one or a combination of the following actions: On or off-site habitat preservation, habitat restoration/enhancement, long-term habitat management activities, and/or species translocations.

- For impacts to federal or state-listed species from ground-mounted renewable energy facilities, incidental take authorization would be required from the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife.
- For impacts to jurisdictional wetlands and waters from ground-mounted renewable energy facilities, permits and/or approvals would be required from the appropriate regulatory agencies with jurisdiction over the wetlands and waters.
- For potential impacts to avian species related to reflection/refraction of light from solar projects (referred to as the "lake effect"), solar projects sited away from existing lakes, reservoirs, wetlands, playas, and other water features would have a reduced potential to attract waterfowl and other bird species and a reduced potential to impact these species from collision with panels; therefore, projects sited adjacent to existing lakes, reservoirs, wetlands, playas, and other water features or areas where bird use determined to be high and the risk of avian collision with panels is considered high should incorporate anti-reflective or low-glare solar panels or design the configuration of solar panels so that they do not mimic natural waterbodies (e.g., avoid large contiguous areas of solar panels; intersperse areas of panels with areas of no panels).

MM BIO-2 Projects determined to have a significant high risk of avian collision with panels after application of MM BIO-1 (lake effect-related measures) shall be required to develop a Bird Conservation Strategy for submittal and approval by the County of Los Angeles and the U.S. Fish and Wildlife Service. The Bird Conservation Strategy shall describe avoidance, minimization, monitoring, and/or compensatory mitigation measures that would offset the adverse effects of bird collision.

MM BIO-3 Ministerial permits for small-scale ground-mounted solar energy systems will include a notice to the permittee explicitly stating that additional state and federal regulations may apply to the construction and operation of the small-scale ground-mounted solar energy system including, but not limited to, U.S. Endangered Species Act, the California Endangered Species Act, California Native Plant Protection Act, and the California Fish and Game Code.

4.4.7 Level of Significance After Mitigation

Impact BIO-1 through Impact BIO-15

Appropriate, feasible, and enforceable mitigation measures could not be identified that would reduce potentially significant impacts to a less than significant level; therefore, impacts would remain **potentially significant and unavoidable**.

Table 4.4-1
Sensitive Plant Communities

Planning Area	Sensitive Plant Communities
Antelope Valley	
Antelope Valley Planning Area	Canyon live oak ravine forest, Mojave riparian forest, Riversidean alluvial fan sage scrub, southern coast live oak riparian forest, southern cottonwood–willow riparian forest, southern mixed riparian forest, southern riparian forest, southern riparian scrub, southern sycamore–alder riparian woodland, southern willow scrub, valley needlegrass grassland, valley oak woodland, wildflower field, vernal pool, Southern California arroyo chub/Santa Ana sucker stream, southern California threespine stickleback stream
Coastal Islands	
Coastal Islands Planning Area	Island cherry forest, island ironwood forest, maritime succulent scrub, southern coastal bluff scrub, southern dune scrub, southern foredunes
Urban and Foothill Communities	
Santa Clarita Valley Planning Area	California walnut woodland, mainland cherry forest, Riversidean alluvial fan sage scrub, southern coast live oak riparian forest, southern cottonwood–willow riparian forest, southern mixed riparian forest, southern riparian scrub, southern sycamore–alder riparian woodland, southern willow scrub, valley oak woodland, and Southern California threespine stickleback stream, vernal pools[1]
Santa Monica Mountains Planning Area	California walnut woodland, southern coast live oak riparian forest, southern coastal salt marsh, southern sycamore–alder riparian woodland, valley oak woodland, Southern California coastal lagoon, Southern California steelhead stream
San Fernando Valley Planning Area	California walnut woodland, Riversidean alluvial fan sage scrub, southern coast live oak riparian forest, southern cottonwood–willow riparian forest, southern mixed riparian forest, southern sycamore–alder riparian woodland, valley oak woodland, Southern California arroyo chub/Santa Ana sucker stream
West San Gabriel Valley Planning Area	Open Engelmann oak woodland, Riversidean alluvial fan sage scrub, southern coast live oak riparian forest, southern sycamore alder riparian woodland
East San Gabriel Valley Planning Area	California walnut woodland, canyon live oak ravine forest, Riversidean alluvial fan sage scrub, coast prickly pear scrub, southern coast live oak riparian forest, southern sycamore alder riparian woodland, walnut forest
Westside Planning Area	California walnut woodland, southern coast live oak riparian forest, southern coastal salt marsh, southern dune scrub, southern sycamore–alder riparian woodland
Metro Planning Area	California walnut woodland, southern coast live oak riparian forest, southern cottonwood–willow riparian forest, southern sycamore–alder riparian woodland, walnut forest
South Bay Planning Area	Southern coastal bluff scrub, vernal pool, southern dune scrub
Gateway Planning Area	California walnut woodland, freshwater marsh, southern coastal saltmarsh

Source: CDFW 2014.

Note:

[1] Vernal pools are not listed by the CNDDB as occurring in the Santa Clarita Planning Area. However, vernal pools have been identified in select locations within this Planning Area and are considered highly significant sensitive resources.

Table 4.4-2
Special-Status Plant Species

Planning Area	Number of Special-Status Species[1]	Federal and/or State Listed Species[2, 3]
Antelope Valley		
Antelope Valley Planning Area	>60	San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), slender-horned spineflower (*Dodecahema leptoceras*), and Bakersfield cactus (*Opuntia basilaris* var. *treleasei*)
Coastal Islands		
Coastal Islands Planning Area	62	Catalina Island mountain-mahogany (*Cercocarpus traskiae*), Lyon's pentachaeta, San Clemente Island bush-mallow (*Malacothamnus clementinus*), San Clemente Island bush mallow (*Malacothamnus clementinus*), San Clemente Island larkspur (*Delphinium variegatum* ssp. *kinkiense*), San Clemente Island woodland star (*Lithophragma maximum*), Santa Cruz Island winged-rockcress (*Sibara filifolia*), beach spectaclepod (*Dithyrea maritima*), San Clemente Island bedstraw (*Galium catalinense* ssp. *acrispum*), San Clemente Island bird's-foot trefoil (*Acmispon argophyllus* var. *adsurgens*), island rush-rose (*Crocanthemum greenei*), San Clemente Island lotus (*Acmispon dendroideus* var. *traskiae*), and San Clemente Island paintbrush (*Castilleja grisea*)
Unincorporated Urban Islands		
Santa Clarita Valley Planning Area	20	San Fernando Valley spineflower, California Orcutt grass (Orcuttia californica), Nevin's barberry (Berberis nevinii), slender-horned spineflower, and spreading navarretia*
San Fernando Valley Planning Area	21	San Fernando Valley spineflower, Braunton's milk-vetch*, California Orcutt grass, Nevin's barberry, and slender-horned spineflower
Santa Monica Mountains Planning Area	21	Braunton's milk-vetch*, Lyon's pentachaeta*, Agoura Hills dudleya (*Dudleya cymosa* ssp. *agourensis*), marcescent dudleya (*Dudleya cymosa* ssp. *marcescens*), and Santa Monica dudleya (*Dudleya cymosa* ssp. *ovatifolia*)
West San Gabriel Valley Planning Area	24	Braunton's milk-vetch*, Nevin's barberry, and slender-horned spineflower
East San Gabriel Valley Planning Area	19	Nevin's barberry and thread-leaved brodiaea*
Westside Planning Area	26	San Fernando Valley spineflower, Braunton's milk-vetch*, Coastal dunes milk-vetch (*Astragalus tener* var. *titi*), Gambel's water cress (*Nasturtium gambelii*), marsh sandwort (*Arenaria paludicola*), salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*), Ventura Marsh milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*), beach spectaclepod, and Santa Monica dudleya
Metro Planning Area	23	Braunton's milk-vetch, California Orcutt grass, coastal dunes milk-vetch, Gambel's water cress, marsh sandwort, and Nevin's barberry
South Bay Planning Area	22	California Orcutt grass, coastal dunes milk-vetch, Lyon's pentachaeta, salt marsh bird's-beak, beach spectaclepod, and spreading navarretia
Gateway Planning Area	16	California Orcutt grass and salt marsh bird's-beak

Sources: CDFW 2014; PCR 2000.

Notes:

1 Approximate number of species with known occurrences in the Planning Area that are federally listed, state listed, or considered rare by the CNPS.

2 Species with known occurrences in the Planning Area that are listed under the federal or California Endangered Species Act.

3 Species indicated with a "*" have USFWS-designated critical habitat in the Planning Area.

Table 4.4-3
Special-Status Wildlife Species

Planning Area	Number of Special-Status Species[1]	Federal and/or State Listed Species[2, 3]
Antelope Valley		
Antelope Valley Planning Area	>60	Arroyo toad*, California condor*, desert tortoise*, southern mountain yellow-legged frog*, Santa Ana sucker*, Bald eagle (*Haliaeetus leucocephalus*), least Bell's vireo, San Bernardino kangaroo rat (*Dipodomys merriami parvus*), southwestern willow flycatcher (*Empidonax traillii extimus*), unarmoured threespine stickleback (*Gasterosteus aculeatus williamsoni*), Mohave ground squirrel (*Xerospermophilus mohavensis*), Nelson's antelope squirrel (*Ammospermophilus nelsoni*), Swainson's hawk (*Buteo swainsoni*), California red-legged frog (*Rana draytonii*), coastal California gnatcatcher (*Polioptila californica californica*), tricolored blackbird, Mountain plover (candidate for listing), Golden eagle, White-tailed kite ~~and western snowyplover (*Charadrius alexandrinus nivosus*)~~
Coastal Islands		
Coastal Islands Planning Area	>20	Xantus' murrelet (*Synthliboramphus hypoleucus*), bald eagle, San Clemente loggerhead shrike (*Lanius ludovicianus mearnsi*), Island fox (*Urocyon littoralis catalinae* and *Urocyon littoralis clementae*), island night lizard (*Xantusia riversiana*), and San Clemente sage sparrow (*Artemisiospiza belli clementae*)
Unincorporated Urban Islands		
Santa Clarita Valley Planning Area	33	Unarmored threespine stickleback, Swainson's hawk, Santa Ana sucker, southwestern willow flycatcher, Arroyo toad*, California condor*, California red-legged frog*, coastal California gnatcatcher*, and least Bell's vireo*
San Fernando Valley Planning Area	33	Arroyo toad, southern mountain yellow-legged frog least Bell's vireo, southwestern willow flycatcher, Swainson's hawk, western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), Coastal California gnatcatcher*, and Santa Ana sucker*
Santa Monica Mountains Planning Area	27	Coastal California gnatcatcher, California red-legged frog*, southern steelhead*, tidewater goby*, and western snowy plover*
West San Gabriel Valley Planning Area	23	Least Bell's vireo, southern mountain yellow-legged frog, southwestern willow flycatcher, bank swallow (*Riparia riparia*), western yellow-billed cuckoo, Swainson's hawk, and coastal California gnatcatcher*
East San Gabriel Valley Planning Area	25	Least Bell's vireo, bank swallow, western yellow-billed cuckoo, Santa Ana sucker, and coastal California gnatcatcher*
Westside Planning Area	35	California least tern (*Sternula antillarum browni*), El Segundo blue butterfly (*Euphilotes battoides allyni*), Pacific pocket mouse (*Perognathus longimembris pacificus*), southern steelhead, southwestern willow flycatcher, bank swallow, Belding's savannah sparrow (*Passerculus sandwichensis Beldingi*), California black rail (*Laterallus jamaicensis coturniculus*), Swainson's hawk, coastal California gnatcatcher, and western snowy plover*
Metro Planning Area	14	Least Bell's vireo, southwestern willow flycatcher, and bank swallow
South Bay Planning Area	24	California least tern, El Segundo blue butterfly, Pacific pocket mouse, bank swallow, Coastal California gnatcatcher*, Palos Verdes blue butterfly*, and western snowy plover*
Gateway Planning Area	25	California least tern, least Bell's vireo, southwestern willow flycatcher, bank swallow, Belding's savannah sparrow, green turtle (*Chelonia mydas*), western yellow-billed cuckoo, and Coastal California gnatcatcher*

Sources: CDFW 2014; PCR 2000.

Notes:

1 Approximate number of species with known occurrences in the Planning Area that are federally listed, state listed, candidates for listing, or considered a Species of Special Concern by the CDFW.

2 Species with known occurrences in the Planning Area that are listed under the federal or California Endangered Species Act.

3 Species indicated with a "*" have USFWS-designated critical habitat in the Planning Area.

Table 4.4-4
Species of Concern Related to Renewable Energy Projects

Planning Area	Special-Status Species[1]
Antelope Valley Planning Area	• Golden eagle (nesting and wintering) • Nelson's bighorn sheep • Swainson's hawk (nesting) • Burrowing owl (burrow sites) • Tricolored blackbird (nesting colony) • Desert tortoise • Mohave ground squirrel
Coastal Islands Planning Area	• Bald eagle • Island fox
Santa Clarita Valley Planning Area	• Swainson's hawk (nesting) • Burrowing owl (burrow sites) • California horned lark
San Fernando Valley Planning Area	• Swainson's hawk (nesting) • Burrowing owl (burrow sites) • Tricolored blackbird (nesting colony) • California horned lark
Santa Monica Mountains Planning Area	• Golden eagle (nesting and wintering) • American peregrine Falcon (nesting)
West San Gabriel Valley Planning Area	• Swainson's hawk (nesting) • burrowing owl (burrow sites) • California horned lark
East San Gabriel Valley Planning Area	• California horned lark
Westside Planning Area	• Swainson's hawk (nesting) • Burrowing owl (burrow sites)
Metro Planning Area	• Burrowing owl (burrow sites)
South Bay Planning Area	• Tricolored blackbird (nesting colony)
Gateway Planning Area	• Burrowing owl (burrow sites) • Tricolored blackbird (nesting colony) • California horned lark

[1] Bat species generally have the potential to occur in all Planning Areas.

DUDEK

8124-01

SOURCE: USFWS 2014

FIGURE 4.4-1
Critical Habitat

Los Angeles County Renewable Energy Ordinance EIR

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DUDEK

8124-01

SOURCE: Los Angeles County 2014

FIGURE 4.4-2

Existing and Proposed Significant Ecological Areas

Los Angeles County Renewable Energy Ordinance EIR

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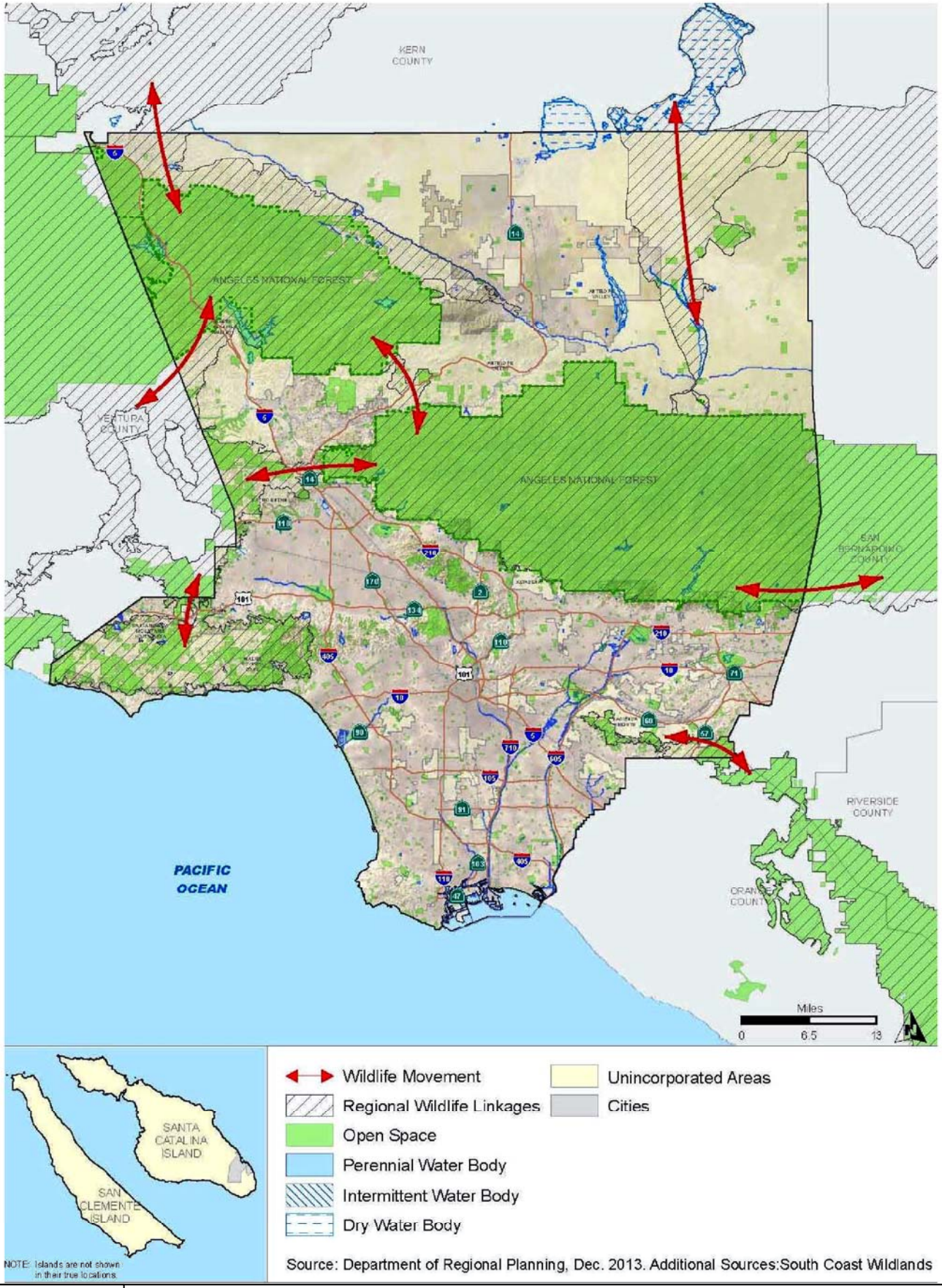

DUDEK

8124-01

FIGURE 4.4-3

Regional Habitat Linkages

Los Angeles County Renewable Energy Ordinance EIR

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4.5 CULTURAL RESOURCES

This section assesses general cultural resource conditions in the County of Los Angeles (County), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The information used in this analysis is general in nature and is derived from the most readily available information in applicable resource and planning documents.

4.5.1 Existing Conditions

Cultural resources include historical, archaeological, and paleontological resources. Examples of such resources include historic buildings, structures, artifacts, sites, and districts of historic, architectural, archaeological, or paleontological significance. These resources may also be locations of important events in history or unique structures or groups of structures possessing distinct architectural features that depict a historic period. Historical, cultural, and paleontological resources are considered non-renewable and irreplaceable.

Prehistoric Overview

Numerous chronological sequences have been devised to aid in understanding cultural changes in Southern California. Building on early studies and focusing on data synthesis, Wallace (1955, 1978) developed a prehistoric chronology for the Southern California coastal region that is still widely used today and is applicable to near-coastal and many inland areas. Four periods are presented in Wallace's prehistoric sequence: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Although Wallace's 1955 synthesis initially lacked chronological precision due to a paucity of absolute dates (Moratto 1984, p. 159), this situation has been alleviated by the availability of thousands of radiocarbon dates that have been obtained by Southern California researchers in the last three decades (Byrd and Raab 2007, p. 217). Several revisions have been made to Wallace's 1955 synthesis using radiocarbon dates and projectile point assemblages (e.g., Koerper et al. 2002; Mason and Peterson 1994). The summary of prehistoric chronological sequences for Southern California coastal and near-coastal areas presented below is a composite of information in Wallace (1955) and Warren (1968) as well as more recent studies, including Erlandson et al. (2007).

Horizon I – Early Man (ca. 10,000–6,000 BC)

The earliest accepted dates for archaeological sites on the Southern California coast are from two of the northern Channel Islands, located off the coast of Santa Barbara. On San Miguel Island, Daisy Cave clearly establishes the presence of people in this area about 10,000 years ago (Erlandson 1991, p. 105). On Santa Rosa Island, human remains from the Arlington Springs site have been dated to approximately 13,000 years ago (Johnson et al. 2002). Present-day Orange

and San Diego Counties contain several sites dating to 9,000 to 10,000 years ago (Byrd and Raab 2007, p. 219; Macko 1998, p. 41; Mason and Peterson 1994, pp. 55–57; Sawyer and Koerper 2006). Although the dating of these finds remains controversial, several sets of human remains from the Los Angeles Basin (e.g., "Los Angeles Man," "La Brea Woman," and the Haverty skeletons) apparently date to the middle Holocene, if not earlier (Erlandson et al. 2007, p. 54).

Recent data from Horizon I sites indicate that the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas (e.g., Jones et al. 2002), and a greater emphasis on large-game hunting inland.

Horizon II – Milling Stone (6000–3000 BC)

Set during a drier climatic regime than the previous horizon, the Milling Stone Horizon is characterized by subsistence strategies centered on collecting plant foods and small animals. The importance of the seed processing is apparent in the dominance of stone grinding implements in contemporary archaeological assemblages; namely, milling stones (metates) and handstones (manos). Recent research indicates that Milling Stone Horizon food procurement strategies varied in both time and space, reflecting divergent responses to variable coastal and inland environmental conditions (Byrd and Raab 2007, p. 220).

Horizon III – Intermediate (3000 BC–AD 500)

The Intermediate Horizon is characterized by a shift toward a hunting and maritime subsistence strategy, along with a wider use of plant foods. An increasing variety and abundance of fish, land mammal, and sea mammal remains are found in sites from this period along the California coast. Related chipped stone tools suitable for hunting are more abundant and diversified, and shell fishhooks became part of the toolkit during this period. Mortars and pestles became more common during this period, gradually replacing manos and metates as the dominant milling equipment, signaling a shift away from the processing and consuming of hard seed resources to the increasing importance of the acorn (e.g., Hector et al. 2006).

Horizon IV – Late Prehistoric (AD 500–Historic Contact)

In the Late Prehistoric Horizon, the use of plant food resources and land and sea mammal hunting increased. There was a concomitant increase in the diversity and complexity of material culture during the Late Prehistoric, demonstrated by more classes of artifacts. The recovery of a greater number of small, finely chipped projectile points suggests increased use of the bow and arrow rather than the atlatl (spear thrower) and dart for hunting. Steatite cooking vessels and containers are also present in sites from this time, and there is an increased presence of smaller bone and shell circular fishhooks; perforated stones; arrow shaft straighteners made of steatite; a

variety of bone tools; and personal ornaments such as beads made from shell, bone, and stone. There was also an increased use of asphalt for waterproofing and as an adhesive.

By AD 1000, fired clay smoking pipes and ceramic vessels were being used at some sites (Meighan 1954). The scarcity of pottery in coastal and near-coastal sites implies that ceramic technology was not well developed in that area, or that ceramics were obtained by trade with neighboring groups to the south and east. The lack of widespread pottery manufacture is usually attributed to the high quality of tightly woven and watertight basketry that functioned in the same capacity as ceramic vessels.

During this period, there was an increase in population size accompanied by the advent of larger, more permanent villages (Wallace 1955, p. 223). Large populations and, in places, high population densities are characteristic, with some coastal and near-coastal settlements containing as many as 1,500 people. Many of the larger settlements were permanent villages in which people resided year-round. The populations of these villages may have also increased seasonally.

In Warren's (1968) cultural ecological scheme, the period between AD 500 and European contact is divided into three regional patterns: Chumash (Santa Barbara and Ventura Counties), Takic/Numic (Los Angeles, Orange, and western Riverside Counties), and Yuman (San Diego County). The seemingly abrupt introduction of cremation, pottery, and small triangular arrow points in parts of modern-day Los Angeles, Orange, and western Riverside Counties at the beginning of the Late Prehistoric period is thought to be the result of a Takic migration to the coast from inland desert regions. Modern Gabrielino/Tongva, Juaneño, and Luiseño people in this region are considered to be descendants of the Uto-Aztecan, Takic-speaking populations that settled along the California coast during this period.

Ethnographic Overview

Gabrielino/Tongva

The southern portion of Los Angeles County has been historically occupied by the Gabrielino (Bean and Smith 1978, p. 538; Kroeber 1925, Plate 57). The name Gabrielino denotes those people who were administered by the Spanish from Mission San Gabriel, which included people from the Gabrielino proper, as well as other social groups. Therefore, in the post-contact period, the name does not necessarily identify a specific ethnic or tribal group. The names that Native Americans in Southern California used to identify themselves have, for the most part, been lost. Many contemporary Gabrielino identify themselves as descendants of the indigenous people living across the plains of the Los Angeles Basin and use the native term Tongva. This term is used in the remainder of this section to refer to the pre-contact inhabitants of the Los Angeles Basin and their descendants.

Tongva lands encompassed the greater Los Angeles Basin and three Channel Islands, San Clemente, San Nicolas, and Santa Catalina. Their mainland territory was bounded on the north by the Chumash at Topanga Creek, the Serrano at the San Gabriel Mountains in the east, and the Juaneño on the south at Aliso Creek (Bean and Smith 1978, p. 538; Kroeber 1925, p. 636).

The Tongva language, as well as that of the neighboring Juaneño/Luiseño, Tataviam/Alliklik, and Serrano, belongs to Takic branch of the Uto-Aztecan language family, which can be traced to the Great Basin area (Mithun 2004, pp. 539, 543–544). This language family's origin differs substantially from that of the Chumash to the north and the Ipai, Tipai, and Kumeyaay farther south. The language of the Ipai, Tipai, and Kumeyaay is derived from the California-Delta branch of the Yuman-Cochimi language family, which originated in the American Southwest (Mithun 2004, p. 577). The Chumash language is unlike both the Yuman-Cochimi and Uto-Aztecan families, and may represent a separate lineage (Mithun 2004, p. 390). Linguistic analysis suggests that Takic-speaking immigrants from the Great Basin area began moving into Southern California around 500 BC (Kroeber 1925, p. 579). This migration may have displaced both Chumashan- and Yuman-speaking peoples, but the timing and extent of the migrations and their impact on indigenous peoples is not well understood. The Tongva language consisted of two main dialects, Eastern and Western; the Western included much of the coast and the Channel Island population (King 2004). Lands of the Western group encompassed much of the western Los Angeles Basin and San Fernando Valley, northward along the coast to the Palos Verdes Peninsula (McCawley 1996, p. 47).

The Tongva established large, permanent villages in the fertile lowlands along rivers and streams, and in sheltered areas along the coast, stretching from the foothills of the San Gabriel Mountains to the Pacific Ocean. A total tribal population has been estimated of at least 5,000 (Bean and Smith 1978, p. 540), but recent ethnohistoric work suggests a number approaching 10,000 seems more likely (O'Neil 2002). Several Tongva villages appear to have served as trade centers, due in large part to their centralized geographic position in relation to the southern Channel Islands and to other tribes. These villages maintained particularly large populations and hosted annual trade fairs that would bring their population to 1,000 or more for the duration of the event (McCawley 1996, pp. 113–114).

The Tongva subsistence economy centered on gathering and hunting. The surrounding environment was rich and varied, and the tribe exploited mountains, foothills, valleys, and deserts as well as riparian, estuarine, and open and rocky coastal eco-niches. Like they were for most native Californians, acorns were the staple food (an established industry by the time of the early Intermediate period) for the Tongva. Acorns were supplemented by the roots, leaves, seeds, and fruits of a wide variety of flora (e.g., islay, cactus, yucca, sages, and agave). Fresh- and saltwater fish, shellfish, birds, reptiles, and insects, as well as large and small mammals, were also consumed (Bean and Smith 1978, p. 546; Kroeber 1925, pp. 631–632; McCawley 1996, pp. 119–131).

The Tongva participated in an extensive exchange network, trading coastal goods for inland resources. They exported Santa Catalina Island steatite products, roots, seal and otter skins, fish and shellfish, red ochre, and lead ore to neighboring tribes, as well as people as far away as the Colorado River. In exchange they received ceramic goods, deerskin shirts, obsidian, acorns, and other items. This burgeoning trade was facilitated by the use of craft specialists, a standard medium of exchange (*Olivella* bead currency), and the regular destruction of valuables in ceremonies, which maintained a high demand for these goods (McCawley 1996, pp. 112–115).

Deceased Tongva were either buried or cremated, with inhumation (burial) being more common on the Channel Islands and the neighboring mainland coast and cremation predominating on the remainder of the coast and in the interior (Harrington 1942; McCawley 1996, p. 157). Cremation ashes have been found in archaeological contexts buried within stone bowls and in shell dishes, as well as scattered among broken ground stone implements. At the behest of the Spanish missionaries, cremation essentially ceased during the post-contact period (McCawley 1996, p. 157).

Tataviam

The Tataviam territories included the upper reaches of the Santa Clara River drainage east of Piru Creek, but also encompassed the Sawmill Mountains to the north and the southwestern portion of the Antelope Valley. There are different hypotheses in regards to the affiliation of the Tataviam language. Scholars hypothesize that the Tataviam may have spoken a language that was uncommonly used in Southern California, or that they may have spoken a Takic language like their southern neighbors (King and Blackburn 1978). As with most languages, the Takic dialects may have been more noticeable at the geographic extremes, while in actuality there was likely a continuum of slight sound and synonym shifts from one community to the next. One scholar has suggested that the northern edge of western Tongva lands were home to the Tataviam Takic speakers, language related to but separate from northern Takic (Mithun 2004).

Kitanemuk

The Kitanemuk are one of the least-known ethnographic groups in California, despite being considered by researchers as the main aboriginal inhabitants of Antelope Valley (Sutton 1987). Kitanemuk territory extended from the Tehachapi Mountains at the northwestern edge of the Antelope Valley southeast to beyond Rosamond Lake, although their populations were densest in the mountains at the southern end of the San Joaquin Valley (Kroeber 1925, p. 611). Like the Kawaiisu, the Kitanemuk were primarily mountain dwellers who lived in semi-permanent village sites that functioned as year-round base camps; during the late winter and early spring expeditions ventured onto the desert floor in pursuit of available seasonal resources (Earle 1997).

Kroeber (1925, p. 611) notes that the Kitanemuk were a subdivision of the Serrano, and thus spoke a language of the Takic family that was similar to dialects spoken by groups living as far south and east as Yucca Valley and Twentynine Palms. Although some aspects of Kitanemuk social organization are similar to those of other Takic speaking groups, Blackburn and Bean (1978, p. 564) argue that Kitanemuk ritual, mythology, and shamanism were most strongly shaped by their neighbors to the north (Kawaiisu and Tubatulabal) and west (Chumash). The Kitanemuk appear to have enjoyed particularly strong trade ties with coastal and inland Chumash groups (Blackburn and Bean 1978, p. 564; Kroeber 1925, p. 613).

Modern-day descendants of the Kitanemuk live at the Tule River Reservation, Porterville, and Tejon Ranch (Four Directions Institute 2004).

Serrano

The name Serrano, a Spanish word applied by early Spanish explorers, means "mountaineers–those of the Sierras" or "highlanders." Although several indigenous words have been recorded that named the people known as Serrano, most are from neighboring groups and do not represent what the Serrano would have called themselves. Serrano living today, however, have also referred to themselves as *Yuhaviatam,* or "people of the pines." This is apparently not only in reference to the trees of the high mountains but also to a creation story that links the people with tears and pine nuts. According to the story, when the Creator died in the high mountains, the first people grieved and in their grieving became pine trees; pine nuts are thus likened to the grieving peoples' tears. Subsequent generations followed the fruition of the first people and are said to sustain themselves on those tears (San Manuel Band of Mission Indians 2015).

The Serrano language is part of the Serran division of a branch of the Takic family of the Uto-Aztecan linguistic stock (Mithun 2004). The two Serran languages, Kitanemuk and Serrano, are closely related. Kitanemuk ethnographic lands were located to the northwest of the Serrano. Other neighboring Takic-speaking groups include the Tataviam and Gabrielino (or *Tongva*) to the west, and the Cahuilla to the south. The Kawaiisu and Chemehuevi, located north and east of the Serrano, respectively, spoke languages that belong to the Numic branch of the Uto-Aztecan family.

Serrano was originally spoken by a relatively small group located within the San Bernardino and Sierra Madre Mountains, and the term "Serrano" has come to be ethnically defined as the name of the people in the San Bernardino Mountains (Kroeber 1925, p. 611). The Vanyume, who lived along the Mojave River and associated Mojave Desert areas and are also referred to as the Desert Serrano, spoke either a dialect of Serrano or a closely related language (Mithun 2004).

The area of combined Serrano/Vanyume occupation—the San Bernardino Mountains, the southwestern portions of the Mojave Desert, and the Mojave River area—has become known as

the Serrano area. The Serrano occupied an area in and around the San Bernardino Mountains between approximately 450 and 3,350 meters (1,500–11,000 feet) above mean sea level. Their territory extended west into the Cajon Pass, east as far as Twentynine Palms, north past Victorville, and south to the Yucaipa Valley. Year-round habitation tended to be located out on the desert floor, at the base of the mountains, and up into the foothills, with all habitation areas requiring year-round water sources (Kroeber 1908; Bean and Smith 1978).

Most Serrano lived in small villages located near water sources (Bean and Smith 1978, p. 571). Each house was occupied by a single extended family, comprising a husband, wife (or wives), children, grandparents, and perhaps a widowed aunt or uncle, and was a central family unit gathering place for sleeping and storage. Many of the villages had a ceremonial house, used both as a religious center and the residence of the lineage leaders. When hunting, the men would sometimes construct individual dwellings away from the village.

Serrano territory was a trade nexus between inland tribes and coastal tribes. Ethnohistory also suggests that the Serrano played a role in the trade of horses from the southwest to the California coast (Bean and Vane 2002). Despite the large geographic extent of the Serrano, as well as their control of significant travel corridors, considering the politically autonomous structure and function of the village unit, some anthropologists have difficulty considering them a unified "tribe," as that word is defined as a unit of people with a common political leadership (Kroeber 1925, p. 617; Strong 1929, p. 14).

Trade and exchange was an important aspect of the Serrano economy. Those living in the lower-elevation, desert floor villages traded foodstuffs with people living in the foothill villages who had access to a different variety of edible resources. In addition to intervillage trade, ritualized communal food procurement events, such as rabbit and deer hunts and piñon, acorn, and mesquite nut-gathering events, integrated the economy and helped distribute resources that were available in different ecozones.

Prior to Spanish occupation of Serrano lands, cremation of the body and the deceased's possessions was practiced. The completion of the death cycle involved a weeklong ceremony that involved ritualized gift giving, feasting, naming, public display of the lineage set ceremonial bundle, an eagle killing and dance ceremony, and a final burning of an effigy depicting the deceased.

Historic Overview

The post-contact history of California is divided into three periods that are defined by the ruling national government: the Spanish period (1769–1822), the Mexican period (1822–1848), and the American period (1848–present). Each period is briefly described below. Some chronologies

include the Mission period (1769–1834), defined by the active span of those Spanish (and later Mexican) Catholic institutions. The Protohistoric or Contact period are alternate names for the era of initial interaction between Native Americans and European explorers and settlers, ranging from 1542 through the early 1800s in outlying areas, where a mixture of native and non-native cultural traits can be observed archaeologically.

Spanish Period (1769–1822)

The first Europeans to observe what became Southern California were members of the 1542–1543 expedition of Juan Rodriguez Cabrillo. When sailing past Santa Monica Bay, Cabrillo noted the numerous campfires of the Gabrielino/Tongva and thus named the area the Bay of Smokes. Cabrillo and other early explorers sailed along the coast and made limited expeditions into Alta (upper) California between 1529 and 1769. Although Spanish, Russian, and British explorers briefly visited Alta California during this nearly 250-year span, they did not establish permanent settlements (Starr 2007).

Gaspar de Portolá and Franciscan Father Junipero Serra established the first Spanish settlement in Alta California at San Diego in 1769. Mission San Diego de Alcalá was the first of 21 missions built by the Spanish between 1769 and 1823. Portolá continued north, passing through the project area on August 2, 1769, and reaching San Francisco Bay on October 31. The process of converting the local Native American population to Christianity through baptism and relocation to mission grounds was begun in this region by the Franciscan padres at the San Gabriel Mission, which was established in 1771. The San Fernando Mission was founded 26 years later, its location chosen as a stopping point between the San Gabriel and San Buenaventura missions. Most Native Americans from the Los Angeles Basin were persuaded to settle in the vicinity of the two missions. These included the eastern Gabrielino of the plains as far south as the Santa Ana River and west to the Los Angeles River. The padres also proselytized the Serrano of the San Gabriel and San Bernardino Mountains, as well as the Vanyume Serrano of the Mojave Desert, many of the western Cahuilla in the Coachella and San Jacinto Valley, some Luiseño of the San Jacinto Valley, and western Gabrielino of the plains west of the Los Angeles River, San Fernando Valley, and the southern Channel Islands. The missions were charged with administering to the Native Americans within their areas. Although mission life gave the Native Americans the skills needed to survive in their rapidly changing world, the close quarters and regular contact with Europeans transmitted diseases for which they had no immunity, decimating their populations (McCawley 1996).

Mexican Period (1822–1848)

After the end of the Mexican Revolution against the Spanish crown (1810–1821), all Spanish holdings in North America (including both Alta and Baja California) became part of the newly formed Mexican Empire, and shortly thereafter, a constitutionally based United Mexican States.

Under Mexican rule, the authority of the California missions gradually declined, culminating with their secularization. Events leading up to the secularization of the California missions spanned many years and much political upheaval, after which the Mexican Congress passed the Secularization Act in August 1833. Not only did the action divest the Franciscans of property, it also opened both of the Californias to colonization. The first 10 of the missions were secularized in 1834, San Gabriel among them.

Historic documents suggest that what followed was a period of intrigue, revolution, and lawlessness. With a disruption in trade came an increase in the number of American interlopers. Political resistance erupted on every front as Mexican citizens in California (*Californios*) vied for control of their ranchos against American intruders and Mexican authority. Although the Mexican government directed that each mission's lands, livestock, and equipment be divided among its neophytes, the majority of these holdings quickly fell into non-Indian hands. As mission landholdings passed into private hands, neophyte workers, who had become dependent on the missions, were left to fend for themselves.

If mission life was difficult for Native Americans, secularization was worse. After two generations of dependence upon the missions, they were suddenly disenfranchised. After secularization, "nearly all of the Gabrielinos went north while those of San Diego, San Luis and San Juan overran this county, filling the Angeles and surrounding ranchos with more servants than were required" (Dakin 1978, p. 282).

Former mission lands were quickly divided and granted to private citizens for use as agricultural and pastoral land. Most of the land grants to Californios were located inland, a policy intended to increase the population away from the coastal areas where the Spanish settlements were concentrated (Dakin 1978).

John Russell Bartlett, visiting Los Angeles in 1852, reported the following:

> I saw more Indians about this place (Los Angeles) than in any part of California I had yet visited. They were chiefly mission Indians, i.e., those who had been connected with the mission and had derived their support from them until the suppression of those establishments. They are a miserable, squalid-looking set, squatting or lying about the corners of the streets, with no occupation (Sugranes 1909, p. 76).

With no work at the mission, there was a far greater labor force in the region than could be employed.

After years of surreptitious commerce, the first party of American immigrants arrived in Los Angeles in 1841, including William Workman and John Rowland, who soon became influential landowners. As the possibility of a takeover of California by the United States loomed large in the 1840s, the Mexican government increased the number of land grants in an effort to keep the land

in Mexican hands (Wilkman and Wilkman 2006). Governor Pío Pico and his predecessors made more than 600 rancho grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time (Gumprecht 1999). Trade in the region changed as well. British and American trade displaced supply ships from Mexico and, in 1841, the first party of American immigrants arrived at the Pueblo de Los Angeles.

American Period (1848–Present)

The United States took control of California in 1846, seizing Monterey, San Francisco, San Diego, and Los Angeles with little resistance. Los Angeles soon slipped from American control, however, and needed to be retaken in 1847. Approximately 600 U.S. sailors, marines, army dragoons, and mountain men converged under the leadership of Colonel Stephen W. Kearney and Commodore Robert F. Stockton in early January of that year to challenge the Californio resistance, which was led by General Jose Maria Flores. The American party scored a decisive victory over the Californios in the Battle of the Rio San Gabriel and at the Battle of La Mesa the following day, effectively ending the war and opening the door for increased American immigration (Harlow 1992).

Hostilities officially ended with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for the conquered territory, including California, Nevada, Utah, parts of Colorado, Arizona, New Mexico, and Wyoming. This represented nearly half of Mexico's pre-1846 holdings. California joined the Union in 1850 as the 31st state (Wilkman and Wilkman 2006).

4.5.2 Relevant Plans, Policies, and Ordinances

Federal

National Historic Preservation Act

Cultural resources are considered during federal undertakings chiefly under Section 106 of the National Historic Preservation Act of 1966, as amended (U.S. Code, Title 16, § 470 et seq.), through one of its implementing regulations, Title 36 of the Code of Federal Regulations, Section 800 (Protection of Historic Properties), as well as the National Environmental Policy Act. Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of the National Historic Preservation Act.

Section 106 requires federal agencies to consider the effects of their undertakings on any district, site, building, structure, or object that is included in or eligible for the National Register of Historic Places (NRHP), and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings (Code Fed. Regs.,

Title 36, § 800.1). Under Section 106, cultural resources must be identified and evaluated, and effects to historic properties reduced to acceptable levels through mitigation measures or agreements among consulting and interested parties. Historic properties are those resources that are listed in or are eligible for NRHP per the criteria listed below (Code Fed. Regs., Title 36, § 60.4). These include properties classified as buildings, sites, districts, structures, or objects. Districts may include contributing and noncontributing properties.

According to the NRHP:

> The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and that:
>
> 1. Are associated with events that have made a significant contribution to the broad patterns of our history; or
> 2. Are associated with the lives of persons significant in our past; or
> 3. Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
> 4. Have yielded, or may be likely to yield, information important in prehistory or history (Code Fed. Regs., Title 36, § 60.4).

Impacts of a project to significant cultural resources that affect the characteristics of any resource that qualify it for the NRHP are considered a significant effect on the environment. Under Title 36 of the Code of Federal Regulations, Section 800.5(a)(2), adverse effects on historic properties include, but are not limited to, the following:

1. Physical destruction of or damage to all or part of the property
2. Alteration of a property
3. Removal of the property from its historic location
4. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance
5. Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features
6. Neglect of a property, which causes its deterioration

7. Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance (Code Fed. Regs., Title 36, § 800.5(a)(2))

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires a lead agency to determine whether a project may have a significant effect on historical resources (Pub. Resources Code, § 21084.1). If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Pub. Resources Code, §§ 21083.2(a), 21083.2(b), and 21083.2(c)).

California Public Resources Code

Section 21083.2(g) of the California Public Resources Code defines a *unique archaeological resource* as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person (Pub. Resources Code, § 21083.2(g)).

A *historical resource* is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR) (Pub. Resources Code, § 21084.1), a resource included in a local register of historical resources (Cal. Code Regs., Title 14, § 15064.5(a)(2)), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (Cal. Code Regs., Title 14, § 15064.5(a)(3)).

California Public Resources Code, Section 5024.1; California Code of Regulations, Title 14, Section 15064.5; and California Public Resources Code, Sections 21083.2 and 21084.1 were used as the basic guidelines for this cultural resources study. California Public Resources Code Section 5024.1 requires an evaluation of historical resources to determine their eligibility for listing in the

CRHR. The purpose of the CRHR is to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, enumerated below.

According to California Public Resources Code Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region or method of installation, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history (Pub. Resources Code, § 5024.1(c)(1–4)).

Impacts to significant cultural resources that affect the characteristics of any resource that qualify it for the NRHP or adversely alter the significance of a resource listed on or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (Cal. Code Regs., Title 14, § 15064.5(b)(1)). *Material impairment* is defined as demolition or alteration "in an adverse manner [of] those characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register" (Cal. Code Regs., Title 14 § 15064.5(b)(2)(A)).

The disposition of burials falls first under the general prohibition on disturbing or removing human remains under California Health and Safety Code Section 7050.5. More specifically, remains suspected to be Native American are treated under the CEQA Guidelines at Title 14 of the California Code of Regulations, Section 15064.5, and cite language found at California Public Resources Code Section 5097.98 that illustrates the process to be followed in the event that remains are discovered. Further, if human remains are discovered during the construction of the proposed project, no further disturbance to the site shall occur and the County Coroner must be notified (Pub. Resources Code, §§ 15064.5 and 5097.98). If the Coroner determines the remains to be Native American, the coroner shall notify the Native American Heritage Commission within 48 hours. The Native American Heritage Commission shall identify the person or persons

it believes to be the Most Likely Descendant (MLD) of the deceased, and the MLDt may then make recommendations as to the disposition of the remains.

California Register of Historical Resources

A number of state regulations and standards apply to cultural resources. The California Register of Historical Resources considers a cultural resource significant if it:

- Is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States
- Is associated with the lives of persons important to local, California or national history
- Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values
- Has yielded, or has the potential to yield, information important to prehistory or history of the local area, California or the nation (State of California 2008).

These criteria do not preclude a lead agency from determining that a resource may be a historical resource as defined in California Public Resources Code, Sections 5020.1(j) and 5024.1. These provisions also apply to archaeological sites.

California Native American Graves Protection and Repatriation Act of 2001

The California Native American Graves Protection and Repatriation Act conveys to American Indians, of demonstrated lineal descent, human remains, and funerary items that are held by state agencies and museums. Human remains require special handling and must be treated with dignity. Procedures are pursuant to Section 15064.5e of the CEQA Guidelines, Section 5097.98 of the Public Resources Code, and Section 87.429 of the Grading Ordinance. In the event of the discovery of human remains and/or funerary items, the following procedures as outlined by the NAHC shall be followed:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
    A. The County Coroner must be contacted to determine that no investigation of the cause of death is required, and
    B. If the Coroner determines that the remains are Native American:
        i. The Coroner shall contact the NAHC within 24 hours.
        ii. The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American.

iii. The MLD may make the recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code, Section 5097.98, or

2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance.

   A. The NAHC is unable to identify an MLD or the MLD failed to make a recommendation within 24 hours after being notified by the commission;

   B. The descendent identified fails to make a recommendation; or

   C. The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner (Cal. Code Regs., Title 14, Section 15064.5).

California Health and Safety Code

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code, Section 7050.5, requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains (Cal. Health and Safety Code, § 7050.5b). If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (Cal. Health and Safety Code, § 7050.5c). The NAHC will notify an MLD. With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within 24 hours of notification of the MLD by the NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Mills Act

The Mills Act, enacted in 1972 by the State of California, enables local jurisdictions "to enter into contracts with property owners of qualified historic properties who actively participate in the restoration and maintenance of their historic properties while receiving property tax relief" (California Office of Historic Preservation 2004).

Local

County of Los Angeles General Plan

Historical, cultural, and paleontological resources are discussed in the Conservation and Open Space Element of the existing adopted General Plan (County of Los Angeles 1980, p. II-29) and the County's Conservation and Natural Resources Element (Chapter 9) of the ~~2014~~ 2015 Draft General Plan Update (County of Los Angeles ~~2012, p. 159~~2015).[1] The County recognizes that historical and cultural resources are an important part of the County's identity and contribute to the local economy. The goals and policies that apply to historical, cultural, and paleontological resources are as follows:

Conservation and Open Space Element Needs and Policies

Protect Cultural Heritage Resources: Our cultural heritage is nonrenewable and irreplaceable. These resources must be identified and protected. Public awareness and use of these resources should be encouraged.

- **Policy 17:** Protect cultural heritage resources, including historical, archaeological, paleontological and geological sites, and significant architectural structures.
- **Policy 18:** Encourage public use of cultural heritage sites consistent with the protection of these resources.
- **Policy 19:** Promote public awareness of cultural resources.
- **Policy 20:** Encourage private owners to protect cultural heritage resources.

Goal and Policies for Historic, Cultural, Paleontological Resources

Goal C/NR 14: Protected historic, cultural, and paleontological resources.

- **Policy C/NR 14.1:** Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.
- **Policy C/NR 14.2:** Support an inter-jurisdictional collaborative system that protects and enhances the County's historic, cultural, and paleontological resources.
- **Policy C/NR 14.3:** Support the preservation and rehabilitation of historic buildings.

[1] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

- **Policy C/NR 14.4:** Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).
- **Policy C/NR 14.5:** Promote public awareness of the County's historic, cultural, and paleontological resources.
- **Policy C/NR 14.6:** Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

County of Los Angeles Draft Historic Preservation Ordinance

The County's Department of Regional Planning is ~~currently~~ working with the Historical Landmarks and Records Commission and the Regional Planning Commission to draft a comprehensive historic preservation ordinance (HPO) for the unincorporated areas of the County. An HPO is local legislation that seeks to preserve, conserve, and protect buildings, objects, landscapes, or other artifacts of historical and cultural significance. In November 2014, the County Board of Supervisors voted to approve the Historic Preservation Ordinance. However, the Historic Preservation Ordinance is not yet officially adopted. It is reasonably foreseeable that the Historic Preservation Ordinance will go into effect in August 2015. Upon adoption, the HPO would accomplish the following:

- Enhance and preserve the distinctive historic, architectural, and landscape characteristics which represent the County's cultural, social, economic, political, and architectural history.
- Foster community pride in the beauty and noble accomplishments of the past as represented by the County's historic resources.
- Stabilize and improve property values, and enhance the aesthetic and visual character and environmental amenities of the County's historic resources.
- Recognize the County's historic resources as economic assets.
- Encourage and promote the adaptive reuse of the County's historic resources.
- Promote the County as a destination for tourists and as a desirable location for businesses.
- Specify significance criteria and procedures for the designation of landmarks and Historic Districts, and provide for the ongoing preservation and maintenance of landmarks and Historic Districts.

4.5.3 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts to cultural resources are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

A. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5.

B. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5.

C. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources.

D. Disturb any human remains, including those interred outside of formal cemeteries.

4.5.4 Impacts Analysis

Criterion A: Would the project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Construction

A small-scale solar energy system is defined as a system where solar resources are used to generate energy primarily for on-site use. Such a system may be affixed either to the ground or to a structure other than the system's mechanical support structure, such as a building or carport. A utility-scale structure-mounted solar energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport,

where solar energy is used to generate power primarily for off-site use. Utility-scale structure-mounted solar facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include but are not limited to solar arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. As a result, structure-mounted solar energy systems and facilities (small-scale and utility-scale) are anticipated to require minimal ground disturbance, if any.

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities 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. Regardless of whether these future projects require ground disturbance, the installation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would potentially result in a significant impact to a historical resource if historic building materials are removed, damaged, or altered or if the system is placed in an incompatible location that compromises a building's historic character or setting, ultimately impacting its historic significance. The following considerations from the *Secretary of the Interior's Standards for the Treatment of Historic Properties* would help to reduce potential impacts:

- Considering on-site solar technology only after implementing all appropriate treatments to improve energy efficiency of the building, which often have greater life-cycle cost benefit than on-site renewable energy
- Analyzing whether solar technology can be used successfully and will benefit a historic building without compromising its character or the character of the site of the surrounding historic district
- Installing a solar device in a compatible location on the site or on a non-historic building or addition where it will have minimal impact on the historic building and its site

- Installing a solar device on the historic building only after other locations have been investigated and determined infeasible
- Installing a low-profile solar device on the historic building so that it is not visible or only minimally visible from the public right of way: for example, on a flat roof and set back to take advantage of a parapet or other roof feature to screen solar panels from view; or on a secondary slope of a roof, out of view from the public right-of-way
- Installing a solar device on the historic building in a manner that does not damage historic roofing material or negatively impact the building's historic character and is reversible
- Installing solar roof panels horizontally—flat or parallel to the roof—to reduce visibility (Grimmer et al. 2011)

However, these future projects would not undergo further discretionary review. Only future project sites that contain local officially designated historic resources would be required to implement these measures through the County's Certificate of Appropriateness process. Therefore, the *Secretary of the Interior's Standards for the Treatment of Historic Properties* or other measures to reduce impacts would not be applied to future project sites that could be historic but do not have the official designation. As a result, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities could potentially result in the physical demolition, destruction, or alteration of the historical resource through ground disturbance, or alter the setting of the resource when the setting contributes to the resource's significance through introducing new vertical elements. Therefore, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may result in a **potentially significant** adverse impact to a historical resource (**Impact CUL-1**).

Operation

Maintenance activities for small-scale structure-mounted and ground-mounted solar energy systems, as well as utility-scale structure-mounted solar energy facilities, are minimal and consist of recommended yearly inspections by the property owner, periodic cleaning in climates with infrequent rainfall, and potential replacement of parts after the first 10 years of operation. If cleaning activities and replacement of parts are done in a manner that conforms with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, the operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would result in a **less than significant** impact to historical resources.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary

meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Construction

A small-scale wind energy system is defined as a system where wind resources are used to generate energy primarily for on-site use. Such systems may be affixed to either the ground or to a structure other than the system's mechanical support structure, such as a building or carport. A temporary MET tower is a structure consisting of a tower and related wind-measuring devices that is used ~~solely~~ to measure winds ~~preliminary~~ prior to construction of a wind energy system or facility. Future small-scale wind energy systems or temporary MET towers 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. The installation of small-scale wind energy systems or temporary MET towers would potentially result in a significant impact to a historical resource if historic building materials are removed, damaged, or altered or if the system is placed in an incompatible location that compromises a building's historic character or setting, ultimately impacting its historic significance. These future turbine projects will be subject to discretionary review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to historical resources to the greatest extent feasible. CEQA requires proposed projects to provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. Such measures may include conformance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties.* Additionally, properties designated as historic under the Draft HPO would require a Certificate of Appropriateness. However, the HPO has not yet been adopted and in effect, and the County does not currently have regulations in place to ensure that future projects would be required to mitigate potential impacts to historic resources to a level less than significant. As previously stated, CEQA review would require implementation of measures to minimize impacts to the greatest extent possible. Therefore, impacts could remain **potentially significant** for these future projects (**Impact CUL-2**).

Operation

Maintenance activities for both small-scale structure-mounted and ground-mounted wind energy systems and temporary MET towers are minimal and generally consist of checking electrical connections, checking that bearings are adequately lubricated, listening for any unusual noise, and inspecting blades with binoculars for any damage. If these activities are done in a manner that

conforms with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, the operation of small-scale wind energy systems and temporary MET towers would result in a **less than significant** impact to historical resources.

Utility-Scale Ground-Mounted Renewable Energy Facilities

A utility-scale ground-mounted renewable energy facility is defined as a facility affixed to the ground where renewable resources are used to generate energy primarily for off-site use. This definition includes all equipment and accessory structures related to the facility, including but not limited to solar collector arrays, wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures.

Construction of a utility-scale ground-mounted renewable energy facility generally requires a large expanse of land to accommodate the size of the facility. If historical resources are present, they could be significantly impacted by the associated construction activities, both aboveground and underground. Although construction activities would have the greatest impact on historical resources, there may be additional impacts to historical resources as a result of the facility's day-to-day operations. Potential impacts resulting from the operation of utility-scale ground-mounted renewable energy facilities include unintentional soil compaction and increased erosion. Other potential visual impacts include fragmentation of large blocks of land and creation of industrial landscapes. All of these could result in potentially significant impacts to historical resources. The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy projects to be evaluated under CEQA and would require measures to minimize impacts to historical resources to the greatest extent feasible. Measures may include conformance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties.* Additionally, properties designated as historic under the Draft HPO would require a Certificate of Appropriateness. However, the HPO has not been adopted and is not yet in effect, and the County does not currently have regulations in place to ensure that future projects would be required to mitigate potential impacts to historic resources to a level less than significant. As previously stated, CEQA review would require implementation of measures to minimize impacts to the greatest extent possible. Therefore, impacts from future utility-scale ground-mounted renewable energy facilities implemented under the proposed project could remain **potentially significant** (**Impact CUL-3**).

Utility-Scale Structure-Mounted Wind Energy Facilities

A utility-scale structure-mounted wind energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where wind energy is used to generate power primarily for off-site use. The definition includes all equipment and accessory structures related to the facility, including but not limited to wind

turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Utility-scale structure-mounted wind energy facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include but are not limited to wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted wind energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. As a result, utility-scale structure-mounted wind energy facilities are anticipated to require minimal ground disturbance, if any.

However, if historical resources are present, they could be significantly impacted due to potential visual impacts, including fragmentation of large blocks of land and creation of industrial landscapes. The discretionary review process would require all future utility-scale structure-mounted wind energy facilities to be evaluated under CEQA and to implement measures to minimize impacts to historical resources to the greatest extent feasible. Measures may include implementation of the *Secretary of the Interior's Standards for the Treatment of Historic Properties.* Additionally, properties designated as historic under the Draft HPO would require a Certificate of Appropriateness. However, the HPO has not yet been adopted and is not yet in effect, and the County does not currently have regulations in place to ensure future projects would be required to mitigate potential impacts to historic resources to a level less than significant. As previously stated, CEQA review would require implementation of measures to minimize impacts to the greatest extent possible. Therefore, impacts from future utility-scale structure-mounted wind energy facilities implemented under the proposed project could remain **potentially significant** (**Impact CUL-4**).

Criterion B: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Construction

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may be located on a site that has a national or state-designated archaeological resource as defined under Section 15064.5(a) of the CEQA Guidelines. A small-scale solar energy system is defined as a system where solar resources are used to generate energy primarily for on-site use. Such systems may be affixed either to the ground or to a structure other than the system's mechanical support structure, such as a building or carport. A utility-scale structure-mounted solar energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where solar energy is used to generate power primarily for off-site use. As further described under Criterion A, structure-mounted solar energy systems and facilities (small-scale and utility-scale) are anticipated to involve minimal ground disturbance, if any. Small-scale ground-mounted solar energy systems would be limited in size because, by definition in the proposed project, maximum lot coverage shall be 25% of the lot or parcel of land, or 2.5 acres, whichever is less. Typically, these systems would only be used to generate on-site energy, although there is the potential for any excess energy to be used off site. These small-scale solar energy systems would be developed within existing residential, commercial, industrial, or agricultural land uses as accessory structures. These systems would

typically be small and would not result in substantial ground disturbance; see Section 3.3.3, CEQA Assumptions, of this environmental impact report (EIR). If ground-disturbing activities associated with the installation of small-scale ground-mounted solar energy systems would not impact native soils and would occur within a level of known fill material, then these impacts would be considered less than significant. However, ground-disturbing activities that could encounter native soils could result in a **potentially significant** impact to archaeological resources (**Impact CUL-5**).

Operation

Maintenance activities for small-scale structure-mounted and ground-mounted solar energy systems, as well as utility-scale structure-mounted solar energy facilities, are minimal and consist of recommended yearly inspections by the property owner, periodic cleaning in climates with infrequent rainfall, and potential replacement of parts after the first 10 years of operation. Therefore, the operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would result in a **less than significant** impact to archaeological resources.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Construction

A small-scale wind energy system is defined as a system where wind resources are used to generate energy primarily for on-site use. Such systems may be affixed either to the ground or to a structure other than the system's mechanical support structure, such as a building or carport. A temporary MET tower is a structure consisting of a tower and related wind-measuring devices that is used ~~solely~~ to measure winds ~~preliminary~~ prior to construction of a wind energy system or facility. Future small-scale wind energy systems or temporary MET towers may be located on a site that has a national or state-designated archaeological resource as defined under Section 15064.5(a) of the CEQA Guidelines.

Construction of small-scale wind energy systems or temporary MET towers could result in a potentially significant impact to archaeological resources if intact native soils are disturbed. If ground-disturbing activities would not impact native soils and would occur within a level of known fill material, then these impacts would be considered less than significant. Ground-

disturbing activities that could encounter native soils could result in a potentially significant impact to archaeological resources**.** However, prior to the issuance of any grading permit, if deemed necessary through the future project-specific CEQA process, applicants shall provide written evidence to the County that an archaeologist has been retained to observe ground-disturbing activities greater than 6 feet in depth and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage. Therefore, impacts would be **less than significant**.

Operation

Maintenance activities for small-scale structure-mounted and ground-mounted wind energy systems and temporary MET towers are minimal and generally consist of checking electrical connections, checking that bearings are adequately lubricated, listening for any unusual noise, and inspecting blades with a pair of binoculars for any damage. Therefore, the operation of small-scale wind energy systems and temporary MET towers would result in a **less than significant** impact to archaeological resources.

Utility-Scale Ground-Mounted Facilities

A utility-scale ground-mounted renewable energy facility is defined as a facility affixed to the ground where renewable resources are used to generate energy primarily for off-site use. This definition includes all equipment and accessory structures related to the facility, including but not limited to solar collector arrays, wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures.

Construction of a utility-scale ground-mounted renewable energy facility generally requires a large expanse of land to accommodate the size of the facility. If archaeological resources are present, they could be significantly impacted by the associated ground-disturbing construction activities. Although construction activities would have the greatest impact on archaeological resources, there may be additional impacts to archaeological resources as a result of the facility's day-to-day operations. Potential impacts resulting from the operation of utility-scale ground-mounted renewable energy facilities include unintentional soil compaction and increased erosion. Other potential visual impacts include fragmentation of large blocks of land and creation of industrial landscapes. All of these could result in potentially significant impacts to

archaeological resources. The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy projects to be evaluated under CEQA and would require implementing measures to minimize impacts to archaeological resources, as necessary. Additionally, prior to the issuance of any grading permit, if deemed necessary through the future project-specific CEQA process, applicants shall provide written evidence to the County that an archaeologist has been retained to observe ground-disturbing activities greater than 6 feet in depth and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage. Therefore, impacts would be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

Construction and Operation

A utility-scale structure-mounted wind energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where wind energy is used to generate power primarily for off-site use. As further described under Criterion A, utility-scale structure-mounted wind energy facilities are anticipated to require minimal ground disturbance, if any. Therefore, future utility-scale structure-mounted wind energy facilities would be unlikely to adversely affect archaeological resources through ground-disturbing activities, which 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. Additionally, the discretionary review process would require all future utility-scale structure-mounted wind energy projects to be evaluated on a project-specific level under CEQA; therefore, impacts to archaeological resources would be **less than significant**.

Criterion C: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W

zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Construction

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may be located on a site that contains a unique paleontological resource or site or a unique geologic feature. A small-scale solar energy system is defined as a system where solar resources are used to generate energy primarily for on-site use. Such systems may be affixed either to the ground or to a structure other than the system's mechanical support structure, such as a building or carport. A utility-scale structure-mounted solar energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where solar energy is used to generate power primarily for off-site use. As further described under Criterion A, structure-mounted solar energy systems and facilities (small-scale and utility-scale) are anticipated to require minimal ground disturbance, if any. Construction of small-scale ground-mounted solar energy systems could result in a potentially significant impact to paleontological resources if intact native soils are disturbed. If ground-disturbing activities associated with the installation of ground-mounted systems would not impact native soils and would occur within a level of known fill material, then these impacts would be considered less than significant. However, ground-disturbing activities that could encounter native soils could result in a potentially significant impact to paleontological resources (Impact CUL-6)

Operation

Maintenance activities for small-scale structure-mounted and ground-mounted solar energy systems, as well as utility-scale structure-mounted solar energy facilities, are minimal and consist of recommended yearly inspections by the property owner, periodic cleaning in climates with infrequent rainfall, and potential replacement of parts after the first 10 years of operation. Therefore, the operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would result in a **less than significant** impact to paleontological resources.

Program-Level Components

Under the proposed ordinance, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Construction

A small-scale wind energy system is defined as a system where wind resources are used to generate energy primarily for on-site use. Such systems may be affixed either to the ground or to a structure other than the system's mechanical support structure, such as a building or carport. A temporary MET tower is a structure consisting of a tower and related wind-measuring devices that is used ~~solely~~ to measure winds ~~preliminary~~ prior to construction of a wind energy system or facility. Future small-scale wind energy systems or temporary MET towers may be located on a site that contains a unique paleontological resource or site or a unique geologic feature.

Construction of small-scale wind energy systems could result in a potentially significant impact to paleontological resources if intact native soils are disturbed. If ground-disturbing activities associated with the installation of ground-mounted systems would not impact native soils and would occur within a level of known fill material, then these impacts would be considered less than significant. Ground-disturbing activities that could encounter native soils could result in a potentially significant impact to paleontological resources. However, prior to the issuance of any grading permit, if deemed necessary through the future project-specific CEQA process, applicants are required to provide written evidence to the County that a paleontologist has been retained to observe ground-disturbing activities greater than 6 feet in depth and salvage and catalogue paleontological resources as necessary. The paleontologist shall be present at the pre-grade conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the paleontological resources are found to be significant, the paleontologist observer shall determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage. Prior to the release of the grading bond the applicant shall obtain approval of the paleontologist's follow-up report from the County. The report shall include the period of inspection, an analysis of any artifacts found, and the current repository of the artifacts. Therefore, impacts would be **less than significant**.

Operation

Maintenance activities for small-scale structure-mounted and ground-mounted wind energy systems and temporary MET towers are minimal and generally consist of checking electrical connections, checking that bearings are adequately lubricated, listening for any unusual noise, and inspecting blades with binoculars for any damage. Therefore, the operation of small-scale wind energy systems and temporary MET towers would result in a **less than significant** impact to paleontological resources.

Utility-Scale Ground-Mounted Renewable Energy Facilities

A utility-scale ground-mounted renewable energy facility is defined as a facility affixed to the ground where renewable resources are used to generate energy primarily for off-site use. This definition includes all equipment and accessory structures related to the facility, including but not limited to solar collector arrays, wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures.

Construction of a utility-scale ground-mounted renewable energy facility generally requires a large expanse of land to accommodate the size of the facility. If paleontological resources are present, they could be significantly impacted by the associated ground-disturbing construction activities. Although construction activities would have the greatest impact on paleontological resources, there may be additional impacts to paleontological resources as a result of the facility's day-to-day operations. Potential impacts resulting from the operation of utility-scale ground-mounted renewable energy facilities include unintentional soil compaction and increased erosion, which could result in potentially significant impacts to paleontological resources. The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and would require implementation of measures to minimize impacts to paleontological resources, as necessary. Additionally, prior to the issuance of any grading permit, if deemed necessary through the future project-specific CEQA process, applicants are required to provide written evidence to the County that a paleontologist has been retained to observe ground-disturbing activities greater than 6 feet in depth and salvage and catalogue paleontological resources as necessary. The paleontologist shall be present at the pre-grade conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the paleontological resources are found to be significant, the paleontologist observer shall determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage. Prior to the release of the grading bond the applicant shall obtain approval of the paleontologist's follow-up report from the County. The report shall include the

period of inspection, an analysis of any artifacts found, and the current repository of the artifacts. Therefore, impacts would be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

A utility-scale structure-mounted wind energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where wind energy is used to generate power primarily for off-site use. As further described under Criterion A, utility-scale structure-mounted wind energy facilities are anticipated to require minimal ground disturbance, if any. Therefore, future utility-scale structure-mounted wind energy facilities would be unlikely to adversely affect paleontological resources through ground-disturbing activities, which have the potential to damage or destroy paleontological resources particularly in areas that have not previously been developed. Additionally, the discretionary review process would require all future utility-scale structure-mounted wind energy facilities to be evaluated on a project-specific level under CEQA; therefore, impacts to paleontological resources would be **less than significant**.

Criterion D: Would the project disturb any human remains, including those interred outside of formal cemeteries?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Construction

A small-scale solar energy system is defined as a system where solar resources are used to generate energy primarily for on-site use. Such systems may be affixed either to the ground or to a structure other than the system's mechanical support structure, such as a building or carport. A utility-scale structure-mounted solar energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where solar energy is used to generate power primarily for off-site use. As further described in Criterion A, structure-mounted solar energy systems and facilities (small-scale and utility-scale) are anticipated to require minimal ground disturbance, if any. Construction of small-scale ground-mounted solar energy systems could result in a potentially significant impact to human remains if intact native soils are disturbed. If ground-disturbing activities associated with the installation of ground-mounted systems would not impact native soils and would occur within a level of known fill material, then these impacts would be considered less than significant. However, ground-disturbing activities that could encounter native soils would result in a **potentially significant** impact to human remains (**Impact CUL-7**).

Operation

Maintenance activities for small-scale structure-mounted and ground-mounted solar energy systems, as well as for utility-scale structure-mounted solar energy facilities, are minimal and consist of recommended yearly inspections by the property owner, periodic cleaning in climates with infrequent rainfall, and potential replacement of parts after the first 10 years of operation. Therefore, the operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would result in a **less than significant** impact to human remains.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Construction

A small-scale wind energy system is defined as a system where wind resources are used to generate energy primarily for on-site use. Such systems may be affixed either to the ground or

to a structure other than the system's mechanical support structure, such as a building or carport. A temporary MET tower is a structure consisting of a tower and related wind-measuring devices that is used ~~solely~~ to measure winds ~~preliminary~~ prior to construction of a wind energy system or facility. Future small-scale wind energy systems or temporary MET towers may be located on a site that has human remains.

Construction of small-scale wind energy systems could result in a potentially significant impact to human remains if intact native soils are disturbed. If ground-disturbing activities associated with the installation of ground-mounted systems would not impact native soils and would occur within a level of known fill material, then these impacts would be considered less than significant. Additionally, the California Native American Graves Protection and Repatriation Act requires special handling of human remains, which must be treated with sensitivity and dignity; procedures are pursuant to Section 15064.5e of the CEQA Guidelines and Section 5097.98 of the California Public Resources Code. Because future projects must comply with these regulations ~~prior to approval~~, impacts to human remains as a result of the proposed project would be **less than significant**.

Operation

Maintenance activities for small-scale structure-mounted and ground-mounted wind energy systems and temporary MET towers are minimal and generally consist of checking electrical connections, checking that bearings are adequately lubricated, listening for any unusual noise, and inspecting blades with binoculars for any damage. Therefore, the operation of small-scale wind energy systems and temporary MET towers would result in a **less than significant** impact to human remains.

Utility-Scale Ground-Mounted Renewable Energy Facilities

A utility-scale ground-mounted renewable energy facility is defined as a facility affixed to the ground where renewable resources are used to generate energy primarily for off-site use. This definition includes all equipment and accessory structures related to the facility, including but not limited to solar collector arrays, wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures.

Construction of a utility-scale ground-mounted renewable energy facility generally requires a large expanse of land to accommodate the size of the facility. If human remains are present, they could be significantly impacted by the associated ground-disturbing construction activities. Although construction activities would have the greatest impact on human remains, there may be additional impacts to human remains as a result of the facility's day-to-day

operations. Potential impacts resulting from the operation of utility-scale ground-mounted renewable energy facilities include unintentional soil compaction and increased erosion, which could result in potentially significant impacts to human remains. The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy projects to be evaluated under CEQA and to implement measures to minimize impacts to human remains, as necessary. Additionally, the California Native American Graves Protection and Repatriation Act requires special handling of human remains, which must be treated with sensitivity and dignity; procedures are pursuant to Section 15064.5e of the CEQA Guidelines and Section 5097.98 of the California Public Resources Code. Because future projects must comply with these regulations ~~prior to approval~~, impacts to human remains as a result of the proposed project would be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

A utility-scale structure-mounted wind energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where wind energy is used to generate power primarily for off-site use. As further described under Criterion A, utility-scale structure-mounted wind energy facilities are anticipated to require minimal ground disturbance, if any. Therefore, future utility-scale structure-mounted wind energy facilities are unlikely to adversely affect human remains through ground-disturbing activities. Additionally, the discretionary review process would require all future utility-scale structure-mounted wind energy projects to be evaluated on a project-specific level under CEQA; therefore, impacts to human remains would be **less than significant**.

4.5.5 Level of Significance Before Mitigation

Without mitigation, the following impacts under the proposed project would be potentially significant:

Impact CUL-1 Impacts related to historical resources from implementation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities under the proposed project.

Impact CUL-2 Impacts related to historical resources from implementation of small-scale wind energy systems and temporary MET towers under the proposed project.

Impact CUL-3 Impacts related to historical resources from implementation of utility-scale ground-mounted renewable energy facilities (solar and wind) under the proposed project.

Impact CUL-4 Impacts related to historical resources from implementation of utility-scale structure-mounted wind energy facilities under the proposed project.

Impact CUL-5 Impacts related to archaeological resources from implementation of small-scale ground-mounted solar energy systems under the proposed project.

Impact CUL-6 Impacts related to paleontological resources from implementation of small-scale ground-mounted solar energy systems under the proposed project.

Impact CUL-7 Impacts related to human remains from implementation of small-scale ground-mounted solar energy systems under the proposed project.

4.5.6 Mitigation Measures

Appropriate, feasible, and enforceable mitigation measures could not be identified that would reduce potentially significant impacts associated with **Impact CUL-1** through **Impact CUL-7** to a level below significance. A discussion of infeasible mitigation measures is provided as follows.

Infeasible Mitigation Measures

The following measures were considered in attempting to reduce impacts associated with archaeological resources, paleontological resources, and human remains to below a level of significance. However, the County has determined that these measures would be infeasible, as described below. Therefore, the following mitigation measures would not be implemented:

- Require adoption of the Draft HPO to reduce impacts relative to historical resources. This measure is not feasible because it is the responsibility of the County Board of Supervisors to decide whether the Draft HPO will be adopted~~.~~, While the County Board of Supervisors has indicated their intent to approve the Draft HPO, ~~and it~~ official adoption of the Draft HPO is not within the proposed project applicant's control.
- Require an archaeological resources survey for all small-scale solar energy systems to ensure that impacts to archaeological resources will be avoided or mitigated. This measure is not feasible as it would directly conflict with the project objectives to allow development of small-scale solar energy systems without a discretionary permit.
- Require a paleontological resources study prior to any ground-disturbing construction activities associated with small-scale solar energy systems. This measure is not feasible as it would directly conflict with the project objectives to allow development of small-scale solar energy systems without a discretionary permit.
- Require a survey to identify potential human remains on site for all small-scale solar energy systems to ensure that impacts to human remains will be avoided or mitigated. This measure is not feasible as it would directly conflict with the project objectives to allow development of small-scale solar energy systems without a discretionary permit.

Because the measures listed above have been found to be infeasible, impacts would remain significant and unavoidable. Chapter 6, Alternatives, provides a discussion of alternatives to the proposed project that would result in some reduced impacts associated with archaeological resources, paleontological resources, and human remains as compared to the proposed project.

4.5.7 Level of Significance After Mitigation

Appropriate, feasible, and enforceable mitigation measures could not be identified that would reduce potentially significant impacts to less than significant; therefore, impacts would remain **potentially significant and unavoidable**.

4.6 GEOLOGY AND SOILS

This section of the environmental impact report (EIR) describes the existing geologic setting of the proposed project area, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

4.6.1 Existing Conditions

The County of Los Angeles (County) is a geologically diverse region that faces a variety of hazards related to seismicity, soils hazards, and steep slopes. The following discussion provides information about County-wide geologic and soils conditions.

Topography

More than 50% of the unincorporated areas within the County are located in hilly or mountainous terrain (County of Los Angeles ~~2014a~~2015, Chapter 12). The County designates areas with slopes that are 25% or steeper as Hillside Management Areas. Within unincorporated areas, the majority of Hillside Management Areas are located adjacent to the Angeles National Forest, near the coast in the Santa Monica Mountains and Palos Verdes Hills, and within the Santa Susana Mountains, the Verdugo Mountains, and the Puente Hills, which are three small ranges located centrally in the Los Angeles Basin (County of Los Angeles ~~2014a~~2015, Figure 9.8). Elevations in the County range from near sea level in the coastal areas to over 10,000 feet above mean sea level (amsl) in the Angeles National Forest.

Geomorphic Provinces

The County primarily encompasses three geomorphic provinces: the Mojave Desert, the Transverse Ranges, and the Peninsular Ranges. A small portion of the Southern Coastal Ranges overlaps with the northwestern tip of the County. Although each of these provinces extends beyond County borders, each province encompasses a distinct area of the County. The characteristics and general locations of the Mojave Desert, Transverse Ranges, and Peninsular Ranges geomorphic provinces are described below.

Mojave Desert

The Mojave Desert geomorphic province is approximately 25,000 square miles and encompasses the northern third of Los Angeles County, nearly all of San Bernardino County, and portions of Kern, Riverside, and Imperial Counties. The portion of the Mojave Desert that is in Los Angeles County is generally synonymous with the Antelope Valley.

The Mojave Desert is characterized by isolated mountain ranges separated by expanses of desert plains. It includes several prominent fault lines, ephemeral lakebeds, and small hills that are remnants of ancient mountain topography. The highest elevations in the Mojave Desert approach 4,000 feet amsl, and the majority of the valleys lie between 2,000 and 4,000 feet amsl.

The Mojave Desert is located between the Garlock Fault to the north, which forms the southern boundary of the Sierra Nevada, and the San Andreas Fault to the west. The Garlock Fault line is located within Kern County, while the San Andreas Fault traverses the County (CGS 2002).

Transverse Ranges

A substantial portion of the County lies within this geomorphic province. The County's land areas that generally fall within this province include the following: the portions of the Antelope Valley Planning Area that are in and adjacent to the Angeles National Forest; the majority of the Santa Clarita Valley Planning Area; the Santa Monica Mountains Planning Area; the San Fernando Valley Planning Area; and the northern sections of the Westside, Metro, West San Gabriel Valley, and East San Gabriel Valley Planning Areas (refer to Figure 3-3, Planning Areas, in Chapter 3, Project Description, of this EIR for the boundaries of these Planning Areas).

The Transverse Ranges are an east–west-trending string of mountain ranges that extend approximately 320 miles from Point Arguello in Santa Barbara County to the Little San Bernardino Mountains in Riverside County. This geomorphic province is generally bounded by the Coast Ranges province to the north, the Mojave Desert province to the east, the Pacific Ocean to the west, and the Peninsular Ranges province to the south. The San Gabriel Mountains and the Sierra Pelona, both of which lie within the County, are part of the Transverse Ranges.

The Transverse Ranges support the highest peaks in California south of the central Sierra Nevada and are considered to be one of the most rapidly rising regions on earth. Intense north–south compression results in the prominent basins and peaks found within this geomorphic province, and several active fault lines, including the San Andreas Fault, are located within this province. The Transverse Ranges also support the only Paleozoic rocks found within coastal mountains in the United States. This province is considered one of the most geologically diverse areas in California (CGS 2002).

Peninsular Ranges

The Peninsular Ranges occupy approximately the southeastern third of the County. This geomorphic province consists of a series of mountain ranges separated by northwest-trending valleys running subparallel to faults branching from the San Andreas Fault. The Peninsular Ranges geomorphic province is bounded to the north by the Transverse Ranges, to the west by

the Pacific Ocean, and to the east by the Colorado Desert geomorphic province. This province extends about 775 miles south of the U.S./Mexico border.

The geology of this province is similar to that of the Sierra Nevada, with granitic rock intruding older metamorphic rocks, gradual west-facing slopes, and steep east-facing slopes (CGS 2002). The Planning Areas that lie generally within this province include the southern portions of the Westside, Metro, West San Gabriel Valley, and East San Gabriel Valley Planning Areas and the entirety of the South Bay, Gateway, and Coastal Islands Planning Areas (see Figure 3-3 in Chapter 3 for the boundaries of these Planning Areas).

Soils

Soils throughout the County differ in origin, composition, and slope development. When evaluating potential impacts of development, soils are typically considered for their resource value in agricultural production or for their potential development characteristics or constraints. Some soils are susceptible to erosion and/or expansive behavior while others are more suitable for compaction for construction. Soils are classified by their distinguishing characteristics and are arranged within soil associations, which are groups of soil units that occur together in a pattern over a geographic region.

The unincorporated urban islands have been generally characterized as having soils that are well suited for urban development. Exceptions include the Palos Verdes Hills (South Bay Planning Area), where corrosive and expansive soils have been identified, and areas in and around the City of Calabasas (Santa Monica Mountains Planning Area), where corrosive soils with high expansion potential have been identified. Portions of the Antelope Valley are underlain by soils with the potential for susceptibility to hydrocollapse. The County Department of Public Works has compiled a GIS database for major soil types mapped within the County. The information in this database describes nearly two dozen soil types, including loams; clayey, silty, and sandy loams; clay adobes; and various alluvial and mountain soil types. The major soil types in each of the Planning Areas are summarized in Table 4.6-1, Prevalent Soil Types.

Geologic Hazards

The County's varied topography, numerous mountain ranges, and multiple fault lines render it susceptible to a variety of geologic hazards, including seismic hazards and geotechnical hazards. Seismic hazards are caused by earthquakes and include ground rupture, liquefaction, landsliding, and tsunami. Geotechnical hazards are most likely to occur in hilly or mountainous terrain and include mud and debris flows, active deep-seated landslides, hillside erosion, undercutting of slopes, and human-induced slope instability. Geotechnical hazards can also result from soils that are expansive, compressible, or collapsible.

Faulting and Ground Shaking

The County is located within a seismically active region of Southern California, with over 50 active and potentially active fault segments within its borders, an undetermined number of buried faults, and at least four blind thrust faults (County of Los Angeles ~~2014a~~2015, Chapter 12). Faults within the County trend generally northwest–southeast. In the areas surrounding fault traces, fault and seismic hazard zones have been designated by the County to identify areas of active seismic concern.

The California Geological Survey (CGS) defines active faults as those that have shown surface displacement within the past 11,000 years (the Holocene era) and potentially active faults as those that have ruptured between 11,000 and 1.6 million years ago (the Quaternary era). Inactive faults are those that demonstrate no evidence of movement within Quaternary time. As shown on Figure 4.6-1, Seismic Hazards, several active fault lines have been identified within the County. The San Andreas Fault is the most prominent of these. This fault line enters the County in its northwestern corner, extends along the northeastern side of the Angeles Crest, and crosses into San Bernardino County to the east. The segment of this fault line within the County extends through the Antelope Valley Planning Area. A variety of active fault lines that are substantially shorter than the San Andreas Fault crisscross the unincorporated urban islands. Many of these fault lines cross unincorporated communities. Table 4.6-2, Prominent Active Faults in Los Angeles County, identifies the faults and the Planning Area(s) each fault traverses. The majority of these fault lines traverse an unincorporated urban island or are located near an unincorporated community. Many of these active faults, including the San Andreas Fault, are located within an Alquist-Priolo Earthquake Hazard Fault Zone, as shown on Figure 4.6-1. Due to the numerous active fault lines within unincorporated areas of the County, portions of the unincorporated County are susceptible to fault rupture, and the County as a whole is susceptible to ground shaking resulting from an earthquake occurring along any of numerous faults located within its borders, in surrounding counties, or off the coast. The strength of ground shaking is correlated with an area's proximity to an active fault line that triggers an earthquake.

Liquefaction

Liquefaction occurs when water-saturated soils that are loosely packed and granular in nature lose their cohesion when subjected to seismic activity and exhibit fluid-like characteristics. Soils subject to liquefaction are usually found in areas with a near-surface water table (County of Los Angeles ~~2014b~~2014a). Areas subject to liquefaction are shown on Figure 4.6-1. The majority of seismically induced liquefaction zones are located in incorporated cities within the unincorporated urban islands geographical region. However, because numerous unincorporated urban islands are interspersed with incorporated cities throughout this region, liquefaction has the potential to occur in within unincorporated urban islands as well. Additionally, there are

several smaller liquefaction zones within unincorporated urban islands in the Santa Clarita Valley and Antelope Valley Planning Areas.

Landslides

A landslide is the movement or flow of soil, rocks, earth, water, or debris down a slope. Seismic activity can trigger landslides, especially on steep slopes or on slopes with slide planes that move easily. The CGS produces maps of potential landslide areas throughout California. The County designates landslide areas based on the CGS maps, which are updated periodically, often in response to a geologic event (County of Los Angeles ~~2014b~~2014a).

Over 50% of unincorporated County areas are composed of hilly or mountainous terrain. The steep slopes in these areas make them more prone to landsliding and to other hazards that are often associated with steep slopes, such as mud flows, debris flows, rockfalls, and natural or artificial compaction of unstable ground. The County's Hillside Management Areas Ordinance[1] regulates development on hillsides that have natural slope gradients of 25% or steeper to address potential hazards related to steep slopes. Areas that are designated as Seismically Induced Landslide Zones are shown on Figure 4.6-1 and areas defined as Hillside Management Areas are shown on Figure 4.1-1, Hillside Management Areas, in Section 4.1, Aesthetics, of this EIR.[2] Many of the areas shown as Seismically Induced Landslide Zones are also within a designated Hillside Management Area.

Erosion

Soil erosion is a natural, ongoing process that transports and displaces soil through mechanisms such as water or wind. The texture of soil, its compactness, and its structure influence its susceptibility to erosion, with texture having the most influence. Intermediate-textured soils are the most likely to undergo erosion, while soils with clay and particles that are coarser than sand tend to be more resistant to erosion. Areas with loosely textured soil overlying sleep slopes are often highly susceptible to soil erosion. Wind erosion is most severe in arid regions, as these areas often have unvegetated sandy or loamy sediments that are frequently exposed to high wind conditions.

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1. The Hillside Management Areas Ordinance is currently being updated as part of the County's ~~2014~~ 2015 Draft General Plan Update. The current ordinance is contained in Section 22.56.215 of the L.A. County Code. The revised Hillside Management Area Ordinance would go into effect upon official adoption of the General Plan Update, which is anticipated to occur in July 2015.

2. Hillside Management Areas are defined by the County's existing adopted General Plan. Figure 4.1-1 shows the Hillside Management Areas associated with the ~~2014~~ 2015 Draft General Plan Update. The map will be officially adopted upon the adoption of the General Plan Update. Although the plan is not yet adopted, Figure 4.1-1 depicts the general locations of steep slopes throughout the County.

The majority of the soils within the County exhibit moderate to high erosion potential. Erosion can be exacerbated by development, which often results in removal of vegetative cover and addition of impervious surfaces. Construction has the potential to result in direct loss of topsoil, while vegetation removal has the potential to result in more permanent exposure of topsoil to erosive factors such as wind and runoff. The addition of impervious surfaces has the potential to increase runoff rates, thereby inducing erosion in downslope areas. The consequences of erosion range from increased siltation in storm drains to changes in topography and undercutting of nearby structures.

Desert Erosion

Human development in desert regions such as the Antelope Valley has the potential to exacerbate blowing sand, a severe form of wind erosion that occurs in desert areas. Blowing sand has the potential to result in property damage and accumulation of soil on roadways. Additionally, blowing sand can result in reduced visibility on roadways and may cause health effects such as Valley Fever. Valley Fever can result when the *Coccidioides immitis* fungus is inhaled. This fungus is naturally present in certain soils, and the fungi can be inhaled when they are stirred into the air by anything that disrupts soils in which the fungi are present, such as farming, construction, and wind. The fungus causes the disease coccidioidomycosis, known as Valley Fever. Valley Fever is typically associated with a fever, chest pain, and coughing. Mild cases usually resolve on their own, but antifungal medications may be required to resolve more severe cases (Mayo Clinic 2014). The fungus that can cause Valley Fever is known to occur in some soils throughout the County, particularly in the Antelope Valley.

Coastal Erosion

Coastal erosion is a natural process that is typically most visible during storm events. Extreme erosion can result in visible coastline retreat and can involve strong wave action that undercuts slopes, leading to potential slope failure, property loss, and risks to human safety. The coastal areas of the County are susceptible to wave erosion, and the area of Malibu within the Santa Monica Mountains Planning Area in particular has undergone extreme erosion in the past. Naturally occurring coastal erosion forces can be exacerbated by human activities such as coastal road construction, channelization of surface water flows, or development on marine terraces.

The unincorporated County contains minimal amounts of coastline. However, the islands that make up the Coastal Islands Planning Area (Santa Catalina and San Clemente Islands) are entirely surrounded by the Pacific Ocean, and two small portions of the unincorporated County in the Santa Monica Mountains Planning Area directly abut the Pacific Ocean. One of these areas is an approximately 1.5-mile segment of unincorporated coastline immediately to the east of the City of Malibu and the other is an approximately 1-mile segment of

unincorporated coastline immediately to the west of the City of Malibu. Areas of the County that contain coastline are minimal, relative to the aggregate size of the unincorporated County. Coastal erosion is thus not a prominent issue within the unincorporated County, but it does have the potential to occur in the two shoreline areas identified above and along the shorelines of Santa Catalina Island and San Clemente Island.

Unstable Soils

Unstable soils include soils that are prone to landslide, lateral spreading, subsidence, liquefaction, or collapse. Landslides, as defined above, are the movement of earth material down a slope. Lateral spreading is a horizontal displacement of surficial blocks of sediments resulting from liquefaction in a subsurface layer of soil. Subsidence involves deep-seated settlement caused by the withdrawal of underground fluid (oil, natural gas, or water). Liquefaction, also defined above, occurs when soils behave in a fluid manner due to a loss of cohesion, generally caused by a seismic event. Collapsible soils are generally low-density, fine-grained granular soils that lose volume when they become saturated with water. Collapsible soils, when saturated, have the potential to undergo rapid settlement under relatively low loads.

The unincorporated County areas contain designated landslide and liquefaction zones, which area depicted on Figure 4.6-1. Because it is linked to liquefaction, lateral spreading would have the potential to occur within portions of the liquefaction zones. Subsidence would have the potential to occur in areas where groundwater or fossil fuels are being withdrawn in the unincorporated areas.

Expansive Soils

Expansive soils are those that change their volume depending on the presence and extent of water saturation in the soil. Currently, there are no reliable maps showing the distribution of expansive soils in the County; however, all soils possess some capacity for expansive behavior. Through geotechnical testing and/or consultation with the County Department of Public Works, it can be determined whether or not a specific site contains expansive soils and to what extent these soils would affect a proposed project (County of Los Angeles ~~2014b~~2014a).

Table 18-1-B of the Uniform Building Code (UBC) defines the expansive potential of a soil by its expansion index, which, if greater than 20, typically requires special foundation design consideration under the UBC. The expansive potential of soils is typically related to the type and amount of clay minerals in a soil, along with the moisture content of the soil and how often it changes (i.e., wet/dry cycles). Expansive soils can be widely dispersed and are found in hillside areas as well as low-lying areas in alluvial basins.

4.6.2 Relevant Plans, Policies, and Ordinances

Federal

Uniform Building Code

The UBC is published by the International Conference of Building Officials and forms the basis for the California Building Code (CBC), as well as approximately half of the state building codes in the United States. It has been adopted by the California Legislature to address the specific building conditions and structural requirements for California and to provide guidance on foundation design and structural engineering for different soil types. The UBC defines and ranks the regions of the United States according to their seismic hazard potential. There are four types of regions, defined as Seismic Zones 1 through 4, with Zone 1 having the least seismic potential and Zone 4 having the highest.

U.S. Department of Agriculture, Natural Resources Conservation Service

The U.S. Department of Agriculture's Natural Resources Conservation Service (Natural Resources Conservation Service) maps soils and farmland uses to provide comprehensive information necessary for understanding, managing, conserving, and sustaining the nation's limited soil resources. In addition to many other natural resource conservation programs, the Natural Resources Conservation Service manages the Farmland Protection Program, which provides funds to help purchase development rights to keep productive farmland in agricultural uses. Working through existing programs, the Natural Resources Conservation Service joins with state, tribal, and local governments to acquire conservation easements or other interests from landowners.

National Pollutant Discharge Elimination System

Section 402 of the Clean Water Act establishes the National Pollutant Discharge Elimination System (NPDES) to control water pollution by regulating point sources that discharge pollutants into waters of the United States. In California, the Environmental Protection Agency has authorized the State Water Resources Control Board (SWRCB) as the permitting authority to implement the NPDES program. In general, the SWRCB issues two baseline general permits: one for industrial discharges and one for construction activities. Phase 1 of the NPDES program requires permits to be issued for medium and large municipal separate storm sewer systems and construction sites of 1 acre or more. The Phase 2 Rule expanded this NPDES program to require operators of small municipal separate storm sewer systems to enforce programs to reduce pollutants in post-construction runoff to storm drain systems from new development or redevelopment projects resulting in land disturbance of 1 acre or more.

State

The statewide minimum public safety standard for mitigation of earthquake hazards (as established through the CBC, the Alquist-Priolo Earthquake Fault Zoning Act, and the Seismic Hazards Mapping Act) is that the minimum level of mitigation for a project should reduce the risk of ground failure during an earthquake to a level that does not cause the collapse of buildings for human occupancy, but in most cases is not required to prevent or avoid the ground failure itself. Projects resulting from the proposed project would not be subject to these regulations, as renewable energy facilities do not involve construction of structures for human occupancy.

Alquist-Priolo Earthquake Fault Zoning Act

Surface rupture is the most easily avoided seismic hazard. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with this act, the state geologist established regulatory zones, called "earthquake fault zones," around the surface traces of active faults and published maps showing these zones. Within these zones, buildings for human occupancy cannot be constructed across the surface trace of active faults. Because many active faults are complex and consist of more than one branch, each earthquake fault zone extends approximately 200 to 500 feet on either side of the mapped fault trace. There is the potential for ground surface rupture along any of the branches. The proposed project is not subject to this act because it does not involve construction of structures for human occupancy.

California Building Code

The CBC is set forth in Title 24 of the California Code of Regulations. This code includes standards from a variety of sources, including standards from the International Building Code, which is a model code that has been adopted nationally and is modified to suite the specific conditions of each state. The CBC is updated every 3 years. Much of the CBC is adopted by reference in the Los Angeles County Code, Title 26, Chapters 2 through 35, and Appendices C, I, and J (L.A. County Code, Title 26 and Appendices C, I, and J). The CBC governs the design and construction of all building occupancies and associated facilities and equipment throughout California (CBSC 2014). The standards contained in the CBC set forth standards for building design and construction, as well as specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. The CBC also contains regulations for ground-disturbing activities, including drainage and erosion control.

Seismic Hazards Mapping Act

The CGS provides guidance with regard to seismic hazards. Under the CGS Seismic Hazards Mapping Act, seismic hazard zones are to be identified and mapped to assist local governments

in planning and development. The intent of the act is to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other types of ground failure, as well as other hazards caused by earthquakes. CGS Special Publication 117a, Guidelines for Evaluating and Mitigating Seismic Hazards in California, provides guidance for evaluation and mitigation of earthquake-related hazards for projects within designated zones of required investigations (CGS 2008). Although the proposed project crosses several liquefaction hazard zones, this act would not apply to the proposed project because it does not involve the construction of structures for human occupancy.

Stormwater Pollution Prevention Plans

As described above under the federal policies, the SWRCB is the permitting authority for implementation of the NPDES program. The SWRCB issues a statewide general NPDES permit for stormwater discharges from construction sites. This permit is called the Statewide General Construction Activity Permit (Construction General Permit). The most current version of this permit is Order No. 2012-0006-DWQ; NPDES No. CAS000002. Under this permit, discharges from construction sites that are 1 or more acres in size must obtain an individual NPDES permit or must elect to be covered by the Construction General Permit. Coverage by the Construction General Permit involves filing a Notice of Intent with the SWRCB and developing and implementing a stormwater pollution prevention plan (SWPPP). SWPPPs must be prepared prior to the start of grading and must list best management practices (BMPs) to reduce and filter stormwater runoff. SWPPPs must also include a visual and a chemical monitoring program for detection of pollutants. If the site will be discharging directly into a water body listed on the state's 303(d) list of impaired waters, the SWPPP must also include a monitoring plan for discharges into these waters.

Local

Los Angeles County Code– Hillside Management Areas and Significant Ecological Areas

Section 22.56.215 of the County Code contains the Hillside Management Areas and Significant Ecological Areas Ordinances of the County. The purpose of these ordinances is to "protect resources contained in significant ecological areas and in hillside management areas as specified in the county General Plan from incompatible development, which may result in or have the potential for environmental degradation and/or destruction of life and property." The ordinances further state that "it is not the purpose to preclude development within these areas but to ensure, to the extent possible, that such development maintains and where possible enhances the remaining biotic resources of the significant ecological areas, and the natural topography, resources and amenities of the hillside management areas, while allowing for limited controlled development therein." In accordance with this intent, the Hillside Management Areas Ordinance

requires residential development within Hillside Management Areas proposed on hillsides of 25% slope or greater to obtain a Conditional Use Permit (CUP). The ordinance exempts certain development, such as accessory structures or modifications to existing structures, from obtaining a CUP. Both the Hillside Management Areas Ordinance and the Significant Ecological Area (SEA) program are undergoing revisions as part of the ~~2014 Draft~~ General Plan Update process. In the ~~proposed~~ revisions to the Hillside Management Areas Ordinance, the requirement for obtaining a CUP in the Hillside Management Areas would be triggered if proposed construction activities for a project would involve 15,000 or more cubic yards of cut and/or fill on a single lot or parcel of land. The revised ordinance would also include a set of Hillside Management Area design guidelines. The ~~2014~~ 2015 Draft General Plan Update also includes a new Hillside Management Areas map showing the areas that would be subject to the revised ordinance (see Figure 4.1-1).

The proposed revisions to the SEA program include changes to the SEA boundaries, which are shown on a map in the ~~2014~~ 2015 Draft General Plan Update (see Figure 4.4-2, Existing and Proposed Significant Ecological Areas, in Section 4.4, Biological Resources, of this EIR for a map showing the existing and proposed SEA boundaries). The adoption of the new boundaries would occur upon adoption of the Antelope Valley Area Plan Update[3] and the General Plan Update[4], with the exception of a number of implementation areas that are pending adoption of applicable community plans to ensure consistency with those plans. ~~while t~~The revisions to the text of the ordinance ~~would~~ will occur separately. Because the textual revisions are separate from the ~~2014 Draft~~ General Plan Update, the contents of this revision are unknown at this time and are considered speculative.

Los Angeles County Code –Building Code

The Building Code for the County is contained in Title 26 of the County Code. The County Code adopts much of the CBC by reference and also contains rules and regulations governing activities that have the potential to result in soil erosion or slope instability.

[3] In November 2014, the County Board of Supervisors voted to approve the Antelope Valley Area Plan Update. However, the Antelope Valley Area Plan Update is not yet officially adopted. The SEAs within the Antelope Valley area that are designated in the existing adopted General Plan will remain in effect until the Antelope Valley Area Plan Update is adopted. It is reasonably foreseeable that the Antelope Valley Area Plan Update will go into effect by July 2015.

[4] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan which includes SEA boundaries will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

Appendix J of Title 26, the Grading Code, contains regulations for excavation, grading, and earthwork; permitting procedures; and plan approval and grading inspection protocol. Section J110, Grading Projects, in this chapter, sets forth measures to reduce erosion during construction such as check dams, cribbing, riprap, and other best practice methods. Title 26 also includes seismic safety requirements for certain building types, such as older concrete tilt-up buildings and unreinforced masonry bearing wall buildings. The purpose of these requirements is to promote public safety and welfare by reducing the risk of death or injury resulting from damage to older buildings caused by earthquakes.

Los Angeles County Code – Erosion and Sediment Control Plans

The Grading Code includes regulations for erosion control and water quality for grading and other ground-disturbing operations. NPDES compliance is required for all projects within the unincorporated County. Additionally, all active grading projects with grading proposed during the rainy season (October 15 to April 15) require an erosion and sediment control plan (ESCP). Grading permits are not issued by the County until an ESCP is approved or details for erosion control are included in the grading plan. ESCPs include specific BMPs to minimize the transport of sediment and to protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. The BMPs shown on ESCPs must be installed on or before October 15. ESCPs are required to be revised annually or as required by the Building Official to reflect current conditions of a site.

For grading projects with a disturbed area of 1 or more acres, the required state SWPPP may be used for fulfilling the County's ESCP requirements. As with an ESCP, a grading permit cannot be issued until the SWPPP has been submitted and approved by the Building Official (L.A. County Code, §§ J110.8.2 and J110.8.3; County DPW 2014a).

Los Angeles County General Plan 2035

The County Department of Regional Planning is currently updating the Los Angeles County General Plan. In ~~January 2014~~March 2015, the Department of Regional Planning released a public review draft of the general plan. The contents and adoption of the ~~2014 Draft~~ General Plan Update were considered through ongoing public hearings with the Regional Planning Commission beginning in February 2014, and were recommended for approval by the Regional Planning Commission in December 2014. ~~It is anticipated that the 2014 Draft General Plan Update will be considered by the~~ The County Board of Supervisors voted to approve the General Plan Update in March 2015. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

Safety Element

The Safety Element of the ~~2014~~ 2015 Draft General Plan Update (Chapter 12) includes goals and policies for preventing or minimizing geotechnical hazards, as well as a map showing the Seismic and Geotechnical Hazard Zones (see Figure 4.6-1). This map delineates the locations of active fault traces, Alquist-Priolo Earthquake Fault Zones, seismically induced landslide zones, and seismically induced liquefaction zones (County of Los Angeles ~~2014a~~2015, Chapter 12 and Figure 12.1).

Conservation and Natural Resources Element

The Conservation and Natural Resources Element of the ~~2014~~2015 Draft General Plan Update (Chapter 9) includes a summary of the County's proposed revisions to the Hillside Management Areas Ordinance, including the design guidelines for development in Hillside Management Areas that are proposed as part of the ordinance. The Goals and Policies for Scenic Resources that are provided in this element include two policies that address the geological hazards that have the potential to occur on steep slopes. These policies include managing development in Hillside Management Areas to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides; considering public safety and the protection of hillside resources in the design of project located in a Hillside Management Area; and considering the maintenance of large, contiguous open areas to limit exposure to landslide, liquefaction, and fire hazards when designing a project located in a Hillside Management Area.

County All-Hazards Mitigation Plan

The General Plan Safety Element works in conjunction with the County All-Hazards Mitigation Plan, which is prepared by the County Chief Executive Office–Office of Emergency Management and that sets strategies for natural and man-made hazards in the County. The All-Hazards Mitigation Plan was adopted by the County Board of Supervisors in October 2004 and has also been approved by the Federal Emergency Management Agency (FEMA) and the California Emergency Management Agency. It was subsequently updated and approved by the County Board of Supervisors in February 2014. The plan includes a compilation of known, projected, and historical hazards in the County. The plan addresses all major natural and human-caused disasters that fall within the responsibilities of County departments within the geographic County.

Both earthquakes and landslides are addressed in the County All-Hazards Mitigation Plan, with earthquakes categorized as High Risk Priority Hazards and landslides categorized as Moderate Risk Priority Hazards. Section 5 of the plan includes strategies for mitigation of both High Risk and Moderate Risk Priority Hazards, and Section 6 of the plan includes goals, actions, and

objectives for implementing the Hazard Mitigation Program (County of Los Angeles 2005; ~~2014a~~2015, Chapter 12; ~~2014c~~2014b).

4.6.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to geology and soils are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

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.

   ii. Strong seismic ground shaking.

   iii. Seismic-related ground failure, including liquefaction and lateral spreading.

   iv. Landslides.

B. Result in substantial soil erosion or the loss of topsoil.

C. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

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

E. Have soils incapable of adequately supporting the use of on-site wastewater treatment systems where sewers are not available for the disposal of wastewater.

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.

4.6.4 Impacts Analysis

Criterion A: ***Would the project 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.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or California Environmental Quality Act (CEQA) review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Several fault zones identified in the most recent Alquist-Priolo Earthquake Fault Zoning Map are located within the project area, as shown on Figure 4.6-1. Rupture of a fault on or near the site of a small-scale solar energy system would have the potential to compromise the system or result in potential hazards to people near the system. Any future proposed project sited on or near a fault line would have the potential to suffer damage in the event of fault rupture on or near the site. However, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not be expected to result in significant exposure of people or other structures to hazards related to fault rupture.

For structure-mounted solar energy systems and facilities, the addition of photovoltaic panels or other solar equipment to the top of a structure would not be expected to increase the exposure of

people in or near the structure and/or the structure itself to hazards resulting from fault rupture. In their 2012 document "Reducing the Risks of Nonstructural Earthquake Damage," FEMA reported that there were few documented examples of earthquake damage related to rooftop solar energy systems to date. However, FEMA mentions that if such systems have not been properly designed to meet seismic loading requirements, panels may become dislodged and fall from the racks on which they are installed or fall off pitched roofs. Wiring also could become dislodged, thus disabling the system. Seismic loading concerns are generally greater for solar panels that have been mounted on racks. Structure-mounted solar systems and facilities consisting of solar tiles or peel-and-stick panels can be integrated with the surface of a roof and may not require special seismic consideration (FEMA 2012). Seismic loading requirements for such systems are set forth in the CBC, which applies to all occupancies throughout the state and is incorporated into the County's Building Code by reference. Therefore, prior to obtaining a building permit, future structure-mounted solar energy systems would be required to demonstrate compliance with seismic loading requirements. Additionally, per Section 113.5 of the County's Building Code, buildings and structures are prohibited from being constructed over or on the trace of a known active earthquake fault that is shown on maps maintained by the County Building Official. The addition of a structure-mounted solar energy system or facility may be allowed on a structure that was built prior to the adoption of Section 113 and that is located on or near a fault trace. However, structure-mounted solar energy systems and facilities would not be constructed on newer structures located over or on an earthquake fault, as such structures are not permitted under the County Building Code. Due to the lack of reported earthquake damage related to structure-mounted solar energy systems and facilities, required compliance with state seismic loading requirements, and the County's prohibition of building new structures on an active fault trace, future structure-mounted solar energy systems and facilities would result in a **less than significant** impact relative to increasing risk or damage during the rupture of an earthquake fault.

Small-scale ground-mounted solar energy systems would not typically involve on-site staff who could be endangered due to structural damage to the system from fault rupture. Furthermore, Section 113.5 of the County Building Code mandates that "no building or structure shall be constructed over or upon the trace of a known active earthquake fault which is shown on maps maintained by the Building Official." This section exempts non-habitable light-frame buildings not exceeding 1,000 square feet in gross floor area or 12 feet in building height and also exempts "swimming pools, retaining walls, fences, and minor work of a similar nature." Although ground-mounted solar energy systems are not intended for human occupation, they are not considered buildings and do not have gross floor area or a building height. Nor would they be considered fences, retaining walls, or minor work of a similar nature. Therefore, compliance with the County Building Code would necessitate that such structures not be affected by rupture of a known fault. Given compliance with the County Building Code, the risk to people and structures

caused by small-scale ground-mounted solar energy systems during a potential fault rupture would not be likely and would be considered **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

As described under Small-Scale Solar Energy Systems, future projects developed pursuant to the proposed project could be structurally compromised by fault rupture, as there are numerous faults throughout the County.

For structure-mounted wind energy systems, the addition of small turbines or other wind equipment to the top of a structure could cause seismic hazards due to seismic loading or the potential for the turbines to topple off the structure on which they have been mounted. As stated under Small-Scale Solar Energy Systems, seismic loading requirements for roofs are set forth in the CBC, which is incorporated into the County's Building Code by reference. Therefore, prior to obtaining a building permit, future structure-mounted wind energy systems would be required to demonstrate compliance with seismic loading requirements. Additionally, per Section 113.5 of the County's Building Code, buildings and structures are prohibited from being constructed over or on the trace of a known active earthquake fault that is shown on maps maintained by the Building Official. The addition of a small-scale structure-mounted wind energy system may be allowed on a structure that was built prior to the adoption of Section 113 and that is located on or near a fault trace. However, structure-mounted systems would not be constructed on newer structures located over or on an earthquake fault, as such structures are not permitted under the County Building Code. Due to required compliance with state seismic loading requirements, the County's prohibition of building new structures on an active fault trace, and the required discretionary permit process that requires project-level CEQA review, future small-scale structure-mounted wind energy systems are anticipated to result in a **less than significant** impact relative to increasing risk or damage during the rupture of an earthquake fault.

Ground-mounted wind energy systems and temporary MET towers would not typically involve on-site staff who could be endangered due to structural damage to the system from fault rupture. Furthermore, Section 113.5 of the County Building Code mandates that "no

building or structure shall be constructed over or upon the trace of a known active earthquake fault which is shown on maps maintained by the Building Official." This section exempts non-habitable light-frame buildings not exceeding 1,000 square feet in gross floor area or 12 feet in building height and also exempts "swimming pools, retaining walls, fences, and minor work of a similar nature." Ground-mounted wind energy systems and temporary MET towers are not intended for human occupation; they are also not considered buildings and do not have gross floor area or a building height, nor would they be considered fences, retaining walls, or minor work of a similar nature. Therefore, compliance with the County Building Code would necessitate that such structures not be affected by rupture of a known fault. Given compliance with the County Building Code, the risk to people and structures caused by small-scale ground-mounted wind energy systems and temporary MET towers during a potential fault rupture would not be likely and would be considered **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

As required by Section 113.5 of the County Building Code, structures are not permitted on active fault traces that are shown on maps maintained by the Building Official. However, utility-scale ground-mounted renewable energy projects would likely include ancillary structures such as transmission lines, transformers, substations, or operations and maintenance buildings, and some of these ancillary structures (excluding operations and maintenance buildings) could be allowed to be constructed on or over an active earthquake fault. However, such ancillary structures that are occupiable would be required to comply with the seismic requirements of the CBC, incorporated in the County's Building Code by reference, prior to obtaining a building permit. Additionally, both the facilities and the ancillary structures would be further evaluated under CEQA as part of the County's discretionary review process. Due to the County's prohibition of building new structures on an active fault trace, the seismic requirements of the County's Building Code, and the required discretionary permit process that requires project-level CEQA review, future utility-scale ground-mounted facilities are anticipated to result in a **less than significant** impact relative to increasing risk or damage during fault rupture.

Utility-Scale Structure-Mounted Wind Energy Facilities

With respect to fault rupture hazards, utility-scale structure-mounted wind energy facilities would have similar effects to those of utility-scale structure-mounted solar energy facilities described previously. Due to the lack of reported earthquake damage related to utility-scale structure-mounted solar facilities (which are expected to be similar in nature to wind facilities relative to seismic damage), required compliance with state seismic loading requirements, and the County's prohibition of building new structures on an active fault

trace, future utility-scale structure-mounted wind energy facilities would result in a **less than significant** impact relative to increasing risk or damage during the rupture of an earthquake fault. Additionally, these facilities would require discretionary review through the Minor CUP permit process, thus requiring future project-level CEQA review.

ii. Strong seismic ground shaking?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Due to the prevalence of earthquake faults in the County, all future proposed projects have the potential to be exposed to strong seismic ground shaking during their operational life. For structure-mounted systems and facilities, the placement of photovoltaic panels or other solar equipment on top of a structure would not be expected to increase the structure's exposure to adverse effects caused by ground shaking and would not be expected to increase people's exposure to adverse effects caused by ground shaking. As described in Criterion A(i), there are few documented examples of earthquake damage to structure-mounted solar energy systems. Additionally, as stated in Criterion A(i), future projects would be required to demonstrate compliance with seismic loading requirements set forth in the CBC, which is incorporated into the County's Building Code by reference, prior to obtaining a building permit. Due to the lack of reported earthquake damage related to structure-mounted solar energy systems and due to required compliance with state seismic loading requirements, future structure-mounted solar energy systems and facilities would result in a less than significant impact relative to increasing risk or damage during strong seismic ground shaking. Similarly, ground-mounted solar energy

systems could suffer damage or create risk to people or structures due to strong seismic ground shaking. However, prior to obtaining a building permit, project applicants would be required to demonstrate compliance with the seismic requirements of the County's Building Code. Given compliance with the required building code, small-scale ground-mounted solar energy systems would result in a **less than significant** impact relative to increasing risk or damage during strong seismic ground shaking.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

As described under Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities, future projects developed pursuant to the proposed project could be structurally compromised by strong seismic ground shaking, as there are numerous faults throughout the County.

For structure-mounted wind energy systems, the addition of small turbines or other wind equipment to the top of a structure could cause seismic hazards due to seismic loading or the potential for the turbines to topple off the structure on which they have been mounted. As stated under Small-Scale Solar Energy Systems, seismic loading requirements for roofs are set forth in the CBC, which is incorporated into the County's Building Code by reference. Therefore, prior to obtaining a building permit, future structure-mounted wind energy systems would be required to demonstrate compliance with seismic loading requirements. Due to required compliance with state seismic loading requirements and the required discretionary permit process that requires project-level CEQA review, future small-scale structure-mounted wind energy systems are anticipated to result in a **less than significant** impact relative to increasing risk or damage during strong seismic ground shaking.

Similarly, small-scale ground-mounted wind energy systems and temporary MET towers could suffer damage or create risk to people or structures due to strong seismic ground shaking. However, prior to obtaining a building permit, project applicants would be required to demonstrate compliance with the seismic requirement of the County's Building Code. Due to required compliance with state seismic loading requirements and the required discretionary permit process that requires project-level CEQA review, future small-scale ground-mounted wind energy systems and temporary MET towers are anticipated to result in a less than significant impact relative to increasing risk or damage during strong seismic ground shaking.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Due to the prevalence of earthquake faults within the County, future proposed projects have the potential to be exposed to strong seismic ground shaking during their operational life. Additionally, such projects may include ancillary structures such as transmission lines, transformers, substations, or operations and maintenance buildings. Both the solar or wind equipment and the ancillary structures would have the potential to incur damage from seismic ground shaking. Additionally, collapse or movement of the structures and equipment would have the potential to cause risk or damage to persons, including workers, on site. However, prior to obtaining a building permit, project applicants would be required to demonstrate compliance with the seismic requirements of the County's Building Code. Due to required compliance with the County's Building Code and the required project-level CEQA review that future projects would undergo as part of the discretionary permit process, future utility-scale ground-mounted facilities are anticipated to result in a **less than significant** impact relative to increasing risk or damage during strong seismic ground shaking.

Utility-Scale Structure-Mounted Wind Energy Facilities

With respect to hazards and risk caused by strong seismic ground shaking, utility-scale structure-mounted facilities would have similar effects to those of small-scale structure-mounted systems described previously. Due to the lack of reported earthquake damage related to structure-mounted solar facilities (expected to be similar in nature to wind facilities relative to seismic damage), required compliance with state seismic loading requirements, and the requirement for future project-level CEQA review as part of the discretionary review process, future utility-scale structure-mounted facilities would result in a **less than significant** impact relative to increasing risk or damage during strong seismic ground shaking.

iii. Seismic-related ground failure, including liquefaction and lateral spreading?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time~~

~~the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Future projects may be located on soils subject to liquefaction or on structures that have been sited on such soils. As shown on Figure 4.6-1, the County contains a variety of regions that have been designated as a "seismically induced liquefaction zone."

For structure-mounted systems, placement of a solar energy system or facility on a structure is not anticipated to expose people or structures to potential adverse effects, even if the structure were located within a geotechnically hazardous area, such as an area prone to liquefaction or lateral spreading. Furthermore, the structures on which such systems or facilities are installed are required to comply with the County Building Code, Section 110.2, Geotechnical Hazards, which requires developers and builders to demonstrate through engineering geology and/or soils engineering reports that the soils hazard will be eliminated or that the site is safe for the intended use. Such reports must demonstrate the safety of the site or the removal of the hazard to the satisfaction of the Building Official prior to obtaining a building permit or a grading permit. Additionally, structures on which systems or facilities are installed that required a grading permit prior to construction would have to have complied with Section J104.4 of the Grading Code. This section requires that for sites with mapped maximum considered earthquake spectral response accelerations at short periods greater than 0.5 acceleration due to gravity (g), a study of the liquefaction potential of the site must be provided to the County, and the recommendations of that study must be incorporated into the plans for the structure. In cases where the proposed work is considered a "Project" under California Public Resources Code Section 2693 and is also proposed in a seismic hazard area as defined by Section J104.4, a geotechnical investigation is required. While some structures may have been built prior to such codes, the elevated nature of structure-mounted systems, combined with the fact that most recent structures in liquefaction-prone areas have been required to demonstrate safety, structure-mounted solar energy systems would not likely suffer damage or cause damage due to soils hazards such as liquefaction or lateral spreading. Due to existing regulations applied to the structures on which future structure-mounted solar energy systems and facilities would be built and the elevated nature of such systems, impacts relative to seismic-related ground failure such as liquefaction and lateral spreading would be **less than significant**.

Prior to obtaining a grading permit or a building permit, ground-mounted facilities proposed on geotechnically hazardous areas would be required to comply with Section 110.2 of the County

Building Code, described previously. Any project for which a grading permit is required (generally, projects involving excavation of more than 50 cubic yards of material) would be required to comply with Section J104.4 of the Grading Code, also described previously. Therefore, because future project applicants would be required to prove the safety of the system or to eliminate the geotechnical hazard to the satisfaction of the Building Official prior to obtaining building or grading permits and would be required to study liquefaction potential for projects in liquefaction-prone areas, future small-scale ground-mounted solar energy systems would result in **less than significant** impacts relative to exposure of people or structures to substantial adverse effects resulting from seismic-related ground failure such as liquefaction or lateral spreading.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Future projects may be located on soils subject to liquefaction or on structures that have been sited on such soils. As shown on Figure 4.6-1, the County contains a variety of regions that have been designated as a "seismically induced liquefaction zone." As described under Small-Scale Solar Energy Systems, structures on which future projects could be constructed have been or will be subject to Section 110.2 of the County Building Code and to Section J104.4 of the Grading Code. Due to existing regulations applied to the structures on which future small-scale structure-mounted wind energy systems would be built and due to the required discretionary permit process that requires project-level CEQA review**,** future small-scale structure-mounted wind energy systems would result in **less than significant** impacts relative to exposure of people or structures to substantial adverse effects resulting from seismic-related ground failure such as liquefaction or lateral spreading.

Prior to obtaining a grading permit or a building permit, small-scale ground-mounted systems and temporary MET towers proposed on geotechnically hazardous areas would be required to comply with Section 110.2 of the County Building Code, described previously. Any project for which a grading permit is required (generally, projects involving excavation of more than 50 cubic yards of material) would be required to comply with Section J104.4 of the Grading Code, also described previously. Therefore, because future project applicants would be required to prove the safety of the system or to eliminate the geotechnical hazard to the satisfaction of the Building Official prior to obtaining building

or grading permits and would be required to study liquefaction potential for projects in liquefaction-prone areas, and because such projects would be subject to further project-level CEQA review, small-scale ground-mounted systems and temporary MET towers would result in **less than significant** impacts relative to exposure of people or structures to substantial adverse effects resulting from seismic-related ground failure such as liquefaction or lateral spreading.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Future projects may be located on soils subject to liquefaction or on structures that have been sited on such soils. As shown on Figure 4.6-1, the County contains a variety of regions that have been designated as a "seismically induced liquefaction zone." In addition to the solar or wind equipment, utility-scale ground-mounted renewable energy facilities may include ancillary structures such as transmission lines, transformers, substations, or operations and maintenance buildings. Both the solar or wind equipment and the ancillary structures would have the potential to incur damage from seismic ground failure, in the event that a project were to be located in an area prone to seismic ground failure. Additionally, collapse or movement of the structures and equipment due to seismic ground failure would have the potential to cause risk or damage to persons, including workers, on site. Prior to obtaining a grading permit or a building permit, ground-mounted facilities proposed on geotechnically hazardous areas would be required to comply with Section 110.2 of the County Building Code, described previously. Prior to obtaining a grading permit, future projects proposed for liquefaction-prone areas would also be required to comply with Section J104.4 of the Grading Code. Because future project applicants would be required to prove the safety of the system or the elimination of the geotechnical hazard to the satisfaction of the Building Official prior to obtaining building or grading permits and would be required to study liquefaction potential for projects in liquefaction-prone areas, and because such projects would be required to undergo project-level CEQA review as part of the discretionary permit process, future utility-scale ground-mounted renewable energy facilities are anticipated to result in **less than significant** impacts relative to exposure of people or structures to substantial adverse effects resulting from seismic-related ground failure such as liquefaction or lateral spreading.

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would have effects similar to those of small-scale structure-mounted systems. Due to existing regulations applied to the structures on which future structure-mounted facilities would be built and the elevated nature of such facilities, impacts relative to seismic-related ground failure such as liquefaction and lateral spreading would be **less than significant**.

iv. Landslides?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

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. Seismically induced landslide zones within the County are shown on Figure 4.6-1. These zones were developed using the CGS Seismic Hazard Zone Maps for 1997 through 2005. The CGS maps are updated periodically, usually in response to a geologic event. If a future project is not located within an area designated as being susceptible to landslide, then no impact would result. In the event that a structure-mounted solar energy system or facility were sited within a landslide zone, it would not be expected to increase exposure of people or structures to landslide hazards. Additionally, as such facilities would be located on top of existing structures, it is unlikely that a landslide would cause damage to the system itself, unless the entire structure or building were undermined. Therefore, structure-mounted solar energy systems and facilities would result in **less than significant** impacts relative to exposure of people or structures to substantial adverse effects resulting from landslides.

Adverse effects to solar energy systems caused by landslide would be more likely to occur for ground-mounted solar energy systems. Furthermore, soil disturbance (including grading) or construction on a site associated with a future ground-mounted small-scale solar energy system could increase the susceptibly of the site and/or surrounding areas to landslide. Prior to obtaining building or grading permits for future projects located in geotechnically hazardous

areas, including areas prone to landslides, project applicants would be required per Section 110.2 of the County's Building Code to submit an engineering geology and/or soils engineering report to the Building Official. These reports must show to the satisfaction of the Building Official that the geotechnical hazard will be eliminated and/or that the site is safe for the intended use. Due to compliance with this requirement, small-scale ground-mounted solar energy systems are anticipated to result in less than significant impacts relative to exposure of people or structures to substantial adverse effect resulting from landslides.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

If a future project is not located within an area designated as being susceptible to landslide, then no impact would result. In the event that a small-scale structure-mounted wind energy system is sited within a landslide zone, it would not be expected to increase exposure of people or structures to landslide hazards. Additionally, as such systems would be located on top of existing structures, it is unlikely that a landslide would cause damage to the system itself, unless the entire structure or building were undermined. Due the type of system proposed and due to the future discretionary review process, small-scale structure-mounted wind energy systems are anticipated to result in **less than significant** impacts relative to exposure of people or structures to substantial adverse effects resulting from landslides.

Prior to obtaining a grading permit or a building permit, ground-mounted systems proposed on geotechnically hazardous areas such as areas prone to landslides would be required to comply with Section 110.2 of the County Building Code, described previously. Additionally, these projects would undergo project-specific discretionary review, which would include review under CEQA. In the event that a project were to be located in or near an area susceptible to landslide hazards, project-specific mitigation would be required to reduce the potential for risk to the system and/or people associated with landsliding on or near the project site. Because future project applicants would be required to prove the safety of the intended use or the elimination of the geotechnical hazard to the satisfaction of the Building Official prior to obtaining building or grading permits and because future projects would be required to undergo discretionary review, future small-scale ground-mounted wind energy systems and temporary MET towers are anticipated to result in **less than significant** impacts relative to exposure of people or structures to substantial adverse effects resulting from landslides.

Utility-Scale Ground-Mounted Renewable Energy Facilities

If a future project is not located within an area designated as being susceptible to landslide, then no impact would result. In the event that a utility-scale ground-mounted facility were sited within a landslide zone, potential effects could include damage to the renewable energy facility and associated ancillary structures, such as operations and maintenance buildings, caused by landslide. Additionally, on-site workers could be exposed to adverse effects in the event of a landslide. However, prior to obtaining a grading permit or a building permit, utility-scale ground-mounted facilities proposed on geotechnically hazardous areas such as areas prone to landslides would be required to comply with Section 110.2 of the County Building Code, described previously. Because future project applicants would be required to prove the safety of the intended use or the elimination of the geotechnical hazard to the satisfaction of the Building Official prior to obtaining building or grading permits and because future projects would be required to undergo project-level CEQA review as part of the discretionary permit process, future utility-scale ground-mounted renewable energy facilities are anticipated to result in **less than significant** impacts relative to exposure of people or structures to substantial adverse effects resulting from landslides.

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would have effects similar to those of small-scale structure-mounted systems. As such facilities would be located on top of existing structures, it is unlikely that a landslide would cause damage to the facility itself, unless the entire structure or building were undermined. Therefore, utility-scale structure-mounted solar energy facilities would result in **less than significant** impacts relative to exposure of people or structures to substantial adverse effects resulting from landslides.

Criterion B: Would the project result in substantial soil erosion or the loss of topsoil?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time~~

~~the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Structure-mounted solar energy systems and facilities would not be expected to result in substantial soil erosion or in the loss of topsoil. Adding equipment such as photovoltaic modules to the roof of an existing structure would not involve substantial movement of soils or exposure of soil to wind or water, and would be associated with minimal ground disturbance, if any. Therefore, future structure-mounted solar energy systems and facilities would have a **less than significant** impact related to substantial soil erosion or topsoil loss.

However, small-scale ground-mounted solar energy systems would have the potential to involve ground disturbance, movement of soils, or exposure of soil to wind or water. Ground-mounted systems would be required to comply with the County Grading Code (Title 26, L.A. County Code, Appendix J). Projects that would be required to obtain a grading permit would generally consist of most projects involving excavation of more than 50 cubic yards of material. Obtaining a grading permit for sites that support structures, such as a small-scale ground-mounted solar energy system, requires submittal of grading plans and supporting data consisting of a geotechnical report and engineering geology report, consistent with Section J104.2.3 of the Grading Code. The recommendations in the geotechnical report must be incorporated into the plans. Additionally, in accordance with Section J110 of the Grading Code, any grading involving the faces of cut and fill slopes must be prepared and maintained to control erosion. Such erosion control consists of effective planting, erosion control blankets, soil stabilizers, or other means approved by the Building Official. Additionally, as required by Section J110.8.1–J110.8.3 of the Grading Code, applicants for any active grading project occurring during the rainy season (October 15–April 15) must prepare an erosion and sediment control plan (ESCP). The ESCPs must show the specific best management practices (BMPs) that would be put in place on the project site to reduce erosion and stormwater pollution. The BMPs are required to be installed on the site on or before October 15. ESCPs are required to be revised annually or as required by the Building Official to reflect current conditions of a site. For grading projects with a disturbed area of 1 or more acres, the required state stormwater pollution prevention plan (SWPPP) may be used for fulfilling the County's ESCP requirements. As with an ESCP, a grading permit cannot be issued until the SWPPP has been submitted and approved by the Building Official (L.A. County Code §§ J110.8.2 and J110.8.3; County DPW 2014a). The County LID Ordinance would require that future projects manage storm runoff during construction and operation. Managing stormwater runoff would reduce the potential amounts of erosion activity resulting from

stormwater. All stormwater and erosion control BMPs would be specified on the submitted grading plans, as required by Section J104.2.2 of the Grading Code. However, as ground-mounted facilities may often require small amounts of ground disturbance, some projects may be deemed exempt from the County Grading Code (typically, projects involving less than 50 cubic yards of excavation). For any project deemed exempt, erosion would not be substantial or adverse, as such projects would involve minor amounts of ground disturbance that would not result in substantial exposure of soils resulting in substantial erosion of loss of soil.

Although construction-related erosion would be minimized through compliance with the Grading Code, operational erosion could result as wind and water pass over the land that has been cleared for the solar energy system. Wind erosion is a particular concern in desert areas such as the Antelope Valley. Although compliance with the County Grading Code, the NPDES program, and the County LID Ordinance would reduce stormwater-related erosion, wind erosion would still have the potential to cause adverse effects for projects that involve substantial ground clearance or ground disturbance. Additionally, construction and operation of renewable energy facilities would be subject to the rules and regulations of the applicable Air Quality Management District. Antelope Valley is within the Antelope Valley Air Quality Management District; the remaining portions of the County are within the South Coast Air Quality Management District. Both air quality management districts enforce Rule 403, Fugitive Dust. This rule requires fugitive dust sources to implement best available control technology measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. This rule is intended to reduce coarse particulate matter emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust (see Section 4.3, Air Quality, of this EIR for a detailed discussion of air quality issues).

Compliance with the Grading Code, the LID Ordinance, Chapter 12.32 of the L.A. County Code, and Rule 403, as applicable, would reduce erosion, fugitive dust, and loss of topsoil caused by construction and operation of small-scale ground-mounted solar energy systems. Although existing regulations would minimize erosion caused by the development of future small-scale ground-mounted systems and would minimize the amount of ground disturbance, there is the possibility that some systems may result in **potentially significant** impacts relative to causing substantial erosion or loss of soil (**Impact GEO-1**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Small-scale structure-mounted wind energy systems would not be expected to result in substantial soil erosion or in the loss of topsoil. Adding equipment such as small wind turbines to the roof of an existing structure would not involve substantial ground disturbance, movement of soils, or exposure of soil to wind or water. Because minimal to no ground disturbance would be involved and because projects would be subject to further discretionary review, small-scale structure-mounted wind energy systems are anticipated to have a **less than significant** impact related to substantial soil erosion or topsoil loss.

Small-scale ground-mounted wind energy systems and temporary MET towers would involve ground disturbance, as the project site would need to be cleared for installation of the turbine(s) or the temporary MET tower. Additionally, the area immediately surrounding the turbine or temporary MET tower may be exposed to greater erosion and/or topsoil loss relative to existing conditions. ~~The proposed Zoning Code amendments would~~Part 15 of the existing Zoning Code limits the size of small-scale wind energy systems to a rated capacity of 50 kilowatts or less. This provision would remain in place under the proposed project. As such, the ground disturbance and related erosion/topsoil loss associated with such systems are expected to be substantially less than what would potentially result from utility-scale ground-mounted wind energy projects. Additionally, the regulations described under Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities would apply to these projects; they would also be subject to project-specific discretionary review under CEQA. However, due to the potential for small-scale ground-mounted wind energy systems and temporary MET towers to result in erosion and/or loss of topsoil, impacts are considered **potentially significant** (**Impact GEO-2**).

Utility-Scale Ground-Mounted Renewable Energy Facilities

Future utility-scale ground-mounted facilities would generally require large areas of land and may require a large amount of grading or other land disturbance. Additionally, utility-scale ground-mounted renewable energy facilities would likely include ancillary structures such as transmission lines, transformers, substations, or operations and maintenance buildings that would also require ground disturbance during construction. When large areas of land are subject to ground disturbance, a variety of adverse effects may result. Loss of topsoil may occur, erosion may be caused as wind blows over the site or as stormwater flows across the site, and people who are on the site or nearby may be exposed to blowing dust containing the fungus that causes Valley Fever. Due to the potential for utility-scale ground-mounted facilities to result in adverse effects involving erosion and topsoil loss, a number of standards involving minimization of ground disturbance and erosion have been incorporated into the proposed Zoning Code amendments. For example, the removal of existing vegetation root systems would be prohibited to ensure dust control and minimal soil erosion, except where necessary for construction of

project components such as roads. Additionally, facilities would be required to be designed to minimize erosion, sedimentation, or other impacts to the natural hydrology and drainage patterns of the site. Furthermore, facilities would be required to be designed in such a way that required grading or ground disturbance would be limited to only the access roads, substations, tanks, basins, inverter pads, or other items required by the County in order to control fugitive dust and to preserve the natural topography. Fugitive dust emissions, which often result due to wind erosion and involve loss of topsoil, would be required to be controlled via a variety of construction and operational measures specified in the proposed Zoning Code amendments, including phased earthwork, site watering, use of clean gravel, application of nontoxic soil stabilizers, limiting public access, and revegetation.

In the northern part of the Antelope Valley, construction activities for future projects located on sites 2.5 acres or greater in size would be subject to the County's Control of Hazardous Dust Conditions Ordinance, which is set forth in Chapter 12.32 of the County Code. This ordinance requires that a permit be obtained from the agricultural commissioner by any entity causing substantial dust to be raised into the atmosphere from an area 2.5 acres or greater in size (approved construction activities are exempted). This ordinance applies to an area generally contiguous with the northern portion of the Antelope Valley. The agricultural commissioner would prescribe appropriate conditions that would prevent or minimize the raising of substantial dust into the atmosphere as a condition of the permit. Therefore, in the event that the operation of a utility-scale ground-mounted renewable energy system were to cause airborne dust issues within a portion of the Antelope Valley, which is the area of the County that is particularly susceptible to this issue, compliance with Chapter 12.32 of the County Code would address and minimize such effects.

In addition to the erosion measures that would be required under the proposed project, future projects would also be required to comply with the regulations described under Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities. These facilities would also be subject to future discretionary review, which would involve project-specific evaluation under CEQA. During the CEQA process, potential significant effects related to erosion/topsoil loss would be identified and associated mitigation would be provided. However, due to the large amounts of ground disturbance that have the potential to result from utility-scale ground-mounted renewable energy facilities and due to the unknown, speculative nature of future project-specific mitigation measures, impacts relative to substantial erosion and topsoil loss would be **potentially significant** (**Impact GEO-3**).

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would have effects similar to those of structure-mounted solar energy systems and facilities. These facilities are not expected to result

in substantial soil erosion or in the loss of topsoil. Adding wind turbines to the roof of an existing structure would not involve substantial movement of soils or exposure of soil to wind or water, and would be associated with minimal ground disturbance, if any. Therefore, future utility-scale structure-mounted wind energy facilities would have a **less than significant** impact related to substantial soil erosion or topsoil loss.

Criterion C: Would the project 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?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

As stated in Criteria A(iii) and A(iv), small-scale solar energy systems and utility-scale structure-mounted solar energy facilities could be located in areas identified by the County as being susceptible to liquefaction and/or landslide (see Figure 4.6-1). Likewise, small-scale systems could also be situated in areas with other unstable geologic or soil conditions.

As structure-mounted solar energy systems and facilities would be sited on an existing building, they would not cause an increase in the geologic instability of the site. Although they could be located on structures that were built on unstable geologic units or unstable soils, such structures built in recent years would have been required to comply with Section 110.2 of the County Building Code (evaluation/amelioration of geotechnical hazards), Section J104.4 of the Grading Code (liquefaction study), and the seismic requirements of the County Building Code prior to

obtaining a building permit. Such requirements would minimize the potential for structures on which solar energy systems and facilities are installed to be susceptible to unstable geologic or soil conditions and/or to cause an unstable geologic or soil condition. Although some structures may have been built prior to these codes, the elevated nature of structure-mounted systems and facilities combined with the fact that most recent structures have been required to demonstrate safety from seismic or soils-related hazards pursuant to the County Building Code would ensure that structure-mounted solar energy systems and facilities would not cause or exacerbate geologic or soil instability and would not likely suffer damage or cause damage due to geologic or soil instability. Due to existing regulations applied to the structures on which future structure-mounted solar energy systems and facilities would be built and the elevated nature of such systems, impacts relative to unstable geologic structures and soils would be **less than significant**.

Small-scale ground-mounted solar energy systems could involve changes to existing site grades. However, such changes would be regulated by the County Grading Code, and a grading permit would be required for projects involving more than 50 cubic yards of excavated material. In accordance with Section 110.2 of the County Building Code (evaluation/amelioration of geotechnical hazards), Section J104.4 of the Grading Code (liquefaction study), and the seismic requirements of the County Building Code, project applicants for projects proposed in geotechnically hazardous areas, such as areas prone to landslides or liquefaction, would be required to demonstrate through engineering geology and/or soils engineering reports that the soils hazard will be eliminated or that the site is safe for the intended use. Project applicants would be required to demonstrate compliance with these codes prior to obtaining building and grading permits. Given compliance with the required codes, impacts of small-scale ground-mounted solar energy systems involving unstable geologic units or soils would be reduced to a **less than significant** level.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

As stated under Criteria A(iii) and A(iv), small-scale wind energy systems could be located in areas identified by the County as being susceptible to liquefaction and/or landslide (see Figure 4.6-1). Small-scale systems and temporary MET towers could also be situated in areas with other unstable geologic or soil conditions. As described under Small-Scale Solar Energy Systems, structures on which future projects could be constructed have been or will be subject to Section

110.2 of the County Building Code and Section J104.4 of the Grading Code, which require demonstration through engineering geology and/or soils engineering reports that a soils hazard will be eliminated or that the site is safe for the intended use (see the discussion under Criterion A(iii) for a more extensive description of these two sections of the County Code). Additionally, structures on which future projects could be constructed have been or will be subject to the seismic requirements of the County Building Code. Due to existing regulations applied to the structures on which future small-scale structure-mounted wind energy systems would be built, the elevated nature of such systems, and the required discretionary permit process that requires project-level CEQA review, impacts of small-scale structure-mounted wind energy systems relative to unstable geologic structures and soils are anticipated to be **less than significant**.

Prior to obtaining a grading permit or a building permit, small-scale ground-mounted wind energy systems and temporary MET towers proposed on geotechnically hazardous areas would be required to comply with Section 110.2 of the County Building Code, described previously. Any project for which a grading permit is required (generally, projects involving excavation of more than 50 cubic yards of material) would be required to comply with Section J104.4 of the Grading Code, also described previously. Therefore, because future project applicants would be required to prove the safety of the system or to eliminate the geotechnical hazard to the satisfaction of the Building Official prior to obtaining building or grading permits and would be required to study liquefaction potential for projects in liquefaction-prone areas, and because such projects would be subject to further discretionary review, future small-scale ground-mounted wind energy systems and temporary MET towers would result in **less than significant** impacts relative to unstable geologic structures or unstable soil conditions.

Utility-Scale Ground-Mounted Renewable Energy Facilities

As stated under Criteria A(iii) and A(iv), utility-scale ground-mounted renewable energy facilities could be located in areas identified by the County as being susceptible to liquefaction and/or landslide (see Figure 4.6-1). Likewise, utility-scale ground-mounted facilities could be situated in areas with other unstable geologic or soil conditions.

Utility-scale ground-mounted renewable energy facilities as well as associated ancillary structures such as transmission lines, transformers, substations, and operations and maintenance buildings could result in changes to site grade with the potential to exacerbate or cause geologic or soils instability. Due to the potential for this effect to occur, the proposed project would require such facilities (including ancillary structures) to be designed in such a way that required grading or ground disturbance would be limited to only the access roads, substations, tanks, basins, inverter pads, or other items required by the County in order to control fugitive dust and to preserve the natural topography. By requiring future projects to preserve natural topography and to limit site grading and ground disturbance, the potential for future projects to exacerbate or cause geologic or

soils instability would be minimized. Furthermore, prior to obtaining a grading permit, future projects proposed for liquefaction-prone areas would be required to comply with Section 110.2 of the County Building Code, Section J104.4 of the Grading Code, and the seismic requirements of the County Building Code, as described under Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities. Due to compliance with the proposed project, the required County codes, and the project-level CEQA review required as part of the discretionary permit process, impacts of utility-scale ground-mounted renewable energy facilities involving unstable geologic units or soils are anticipated to be reduced to a **less than significant** level.

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would have effects similar to those of small-scale structure-mounted wind energy systems. Due to compliance with the required County codes and the project-level CEQA review required as part of the discretionary permit process, impacts of utility-scale structure-mounted wind energy facilities involving unstable geologic units or soils are anticipated to be reduced to a **less than significant** level.

Criterion D: Would the project 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?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~,; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Expansive soils are those that change their volume depending on the presence and extent of water saturated in the soil. Future small-scale solar energy systems or utility-scale structure-

mounted solar energy facilities may be located on expansive soils, as defined in Table 18-1-B of the UBC (1994). However, impacts would be less than significant, as all new construction is required to comply with the improvement requirements identified in the 1997 UBC, Division III, Design Standard for Design of Slab-On-Ground Foundations to Resist the Effects of Expansive Soils and Compressible Soils (1997 UBC Design Standard). These requirements would ensure suitable structure safety in areas with expansive soils. In addition, future projects developed pursuant to the proposed project would be subject to the design requirements in the County's Building Code, such as specific foundation design requirements. Pursuant to County Building Code Section 110.2, an engineering geology and/or soils engineering report would be required in the event that a small-scale ground-mounted solar energy system were to be proposed in an area prone to geotechnical hazards. The report would evaluate the soils on site and would identify whether or not expansive soils were present. In the event that expansive soils were present, the report would recommend construction standards to address any expansive soil issues. Therefore, the potential for future small-scale solar energy systems or utility-scale structure-mounted solar energy facilities to be located on expansive soils that would create substantial risks to life or property would be less than significant.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Although future systems could be located on areas with expansive soils, impacts would be less than significant, as all new construction is required to comply with the improvement requirements identified in the 1997 UBC Design Standard. These requirements would ensure suitable structure safety in areas with expansive soils. In addition, future projects developed pursuant to the proposed project would be subject to the design requirements in the County's Building Code, such as specific foundation design requirements. Pursuant to County Building Code Section 110.2, an engineering geology and/or soils engineering report would be required in the event that a ground-mounted system were to be proposed in an area prone to geotechnical hazards. The report would evaluate the soils on site and would identify whether or not expansive soils were present. In the event that expansive soils were present, the report would recommend construction standards to address any expansive soil issues. Due to existing regulations and due to the project-level CEQA review required as part of the discretionary permit process, the potential for future small-scale wind energy systems and

temporary MET towers to be located on expansive soils that would create substantial risks to life or property is anticipated to be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Utility-scale ground-mounted renewable energy facilities would have the potential to be situated on sites containing expansive soils. Additionally, utility-scale ground-mounted renewable energy projects would likely include ancillary structures such as transmission lines, transformers, substations, or operations and maintenance buildings. The solar or wind equipment and the ancillary structures would have the potential to incur damage in the event of soil expansion. Additionally, collapse or movement of the structures and equipment would have the potential to cause risk or damage to persons, including workers, on site.

Although future facilities, including ancillary structures, could be located on areas with expansive soils, impacts would be less than significant, as all new construction is required to comply with the improvement requirements identified in the 1997 UBC Design Standard. These requirements would ensure suitable structure safety in areas with expansive soils. In addition, future projects developed pursuant to the proposed project would be subject to the design requirements in the County Building Code, such as specific foundation design requirements. Pursuant to County Building Code Section 110.2, an engineering geology and/or soils engineering report would be required in the event that a ground-mounted facility were to be proposed in an area prone to geotechnical hazards. The report would evaluate the soils on site and would identify whether or not expansive soils were present. In the event that expansive soils were present, the report would recommend construction standards to address any expansive soil issues. Due to existing regulations and the project-level CEQA review required as part of the discretionary permit process, the potential for future utility-scale ground-mounted renewable energy facilities to be located on expansive soils that would create substantial risks to life or property is anticipated to be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

Structure-mounted wind energy facilities would not be located on expansive soils, as they would be constructed on existing buildings or structures. Such structures are required to comply with Section 110.2 of the County Building Code, as described under Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities. Due to compliance with the required County code and the project-level CEQA review required as part of the discretionary permit process, impacts of utility-scale structure-mounted wind energy facilities involving unstable geologic units or soils are anticipated to be reduced to a **less than significant** level.

Criterion E: Would the project have soils incapable of adequately supporting the use of on-site wastewater treatment systems where sewers are not available for the disposal of wastewater?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

As stated in the proposed Zoning Code amendments, small-scale renewable energy systems are those that would primarily supply energy to an existing on-site use. Small-scale systems would be situated either on top of or adjacent to the structures for which they supply energy. Thus, these facilities would not be associated with on-site workers or other additional people requiring on-site wastewater treatment systems (OWTS). Additionally, utility-scale structure-mounted solar energy facilities would be mounted on existing buildings or structures. Because small-scale solar energy systems and utility-scale structure-mounted solar energy facilities are not expected in and of themselves to be associated with OWTS, these systems and facilities would not result in the development of OWTS on inadequate soils. For this reason, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would result in **no impact** relative to the siting of OWTS.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET

towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

As stated in the proposed Zoning Code amendments, small-scale systems are those that would primarily supply energy to an existing on-site use. Small-scale systems would be situated either on top of or adjacent to the structures for which they supply energy. Thus, these facilities in and of themselves would not be associated with on-site workers or other additional people requiring OWTS. Although temporary MET towers may not be associated with an existing structure, such facilities would be temporary and are not expected to be associated with operations and maintenance buildings and/or workers requiring OWTS. Because small-scale wind energy systems are not expected to be associated with OWTS, small-scale systems would not result in the development of OWTS in inadequate soils. For this reason, small-scale wind energy systems and temporary MET towers would result in **no impact** relative to the siting of OWTS.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Wastewater may be generated by utility-scale ground-mounted renewable energy facilities, as such facilities may include operations and maintenance buildings that house several on-site workers. Some future facilities may rely on public water and sewer systems 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 OWTS or alternative wastewater disposal systems would be proposed. However, in the event that a public sewer is not located near a future utility-scale ground-mounted facility, an OWTS may be required to serve a proposed operations and maintenance building or for other purposes. If an OWTS is proposed, discharged wastewater must conform to the Regional Water Quality Control Board's (RWQCB's) applicable standards, including the regional Water Quality Control 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 would require testing, which includes a geotechnical report and percolation testing. Therefore, future projects would 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. Additionally, utility-scale ground-mounted renewable energy facilities would be subject to project-specific evaluation under CEQA as part of the County's CUP discretionary review process. The adequacy of site-specific soils for any proposed OWTS associated with future utility-scale ground-mounted facilities would be further examined during this process. Due to existing RWQCB requirements and the required project-level CEQA review that future projects would undergo as part of the discretionary permit process, potential impacts of utility-scale

ground-mounted renewable energy facilities related to soils being incapable of adequately supporting OWTS or alternative wastewater disposal systems where sewers are not available are anticipated to be less than significant.

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would have effects similar to those of utility-scale structure-mounted solar energy facilities. These structure-mounted wind energy facilities would be mounted on top of existing buildings or structures. Thus, these facilities would not be associated with on-site workers or other additional people requiring OWTS. Therefore, utility-scale structure-mounted wind energy facilities would result in **no impact** relative to the siting of OWTS.

Criterion F: Would the project 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?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Because the proposed project area consists of the entire unincorporated County, future small-scale solar energy systems may be located in a Hillside Management Area. The existing adopted Hillside Management Areas Ordinance requires certain residential development projects within Hillside Management Areas to obtain a CUP. Projects that are exempt from obtaining a permit include accessory buildings and structures, which are defined in Title 22 as "detached

subordinate building or structure, the use of which is customarily incidental to that of the main building or to the main use of the land, and which is located in the same or a less restrictive zone, and on the same lot or parcel of land with the main building or use" (L.A. County Code, § 22.08.010(A)). Projects that are exempt also include those that involve additions or modifications to existing residences, provided that such additions or modifications do not increase the number of families that can be housed in the residences (L.A. County Code, § 22.56.215(C)). Small-scale solar energy systems would likely fall under one or both of these exemptions if they are accessory uses to an existing residence. However, in the event that a future small-scale solar energy system or utility-scale structure-mounted solar energy facility were to fall subject to the Hillside Management Ordinance, a CUP would be required in accordance with the ordinance. This may occur in the event that small-scale solar energy systems or utility-scale structure-mounted solar energy facilities were being proposed along with a new residential subdivision. ~~As noted in Section 4.6.1, the Hillside Management Areas Ordinance is undergoing revisions as part of the 2014 Draft General Plan Update process. In the proposed revisions to the Hillside Management Areas Ordinance, the requirement for obtaining a CUP in the Hillside Management Areas would be triggered if proposed construction activities for a project would involve 15,000 or more cubic yards of cut and/or fill on a single lot or parcel of land. The adopted Hillside Management Areas Ordinance is used for purposes of this analysis.~~

In the event that such systems were to be proposed along with a residential subdivision, there is nothing inherent in the inclusion of solar energy systems or facilities that would violate the provisions of the adopted Hillside Management Areas Ordinance. As part of the residential project application process, the design and siting of the solar energy system or facility would be subject to the provisions of the adopted Hillside Management Areas Ordinance. The requirements include applying for a CUP with the following items included in the application package: panoramic pictures from all major corners and elevated points of the project site, maps showing the existing topography, a grading plan, architectural plans for proposed structures, and geology and soils reports indicating active or potentially faults and the stability of the area. The application materials must substantiate a number of facts relative to the protection of Hillside Management Areas, including the following: that the proposed project is located and designed so as to protect the safety of current and future community residents and will not create significant threats to life and/or property due to the presence of geologic, seismic, slope instability, fire, flood, mud flow, or erosion hazard, and that the proposed project is compatible with the natural, biotic, cultural, scenic, and open space resources of the area. Additionally, every Hillside Management Area CUP issued must include certain conditions listed in the ordinance. These pertain to the inclusion of open space in project design, landscaping, provision of utilities, and residential density. Although these conditions would mostly affect the design and siting of residential structures, any small-scale solar energy systems or utility-scale structure-mounted solar energy facilities incorporated into such residences or subdivisions would be required to

adhere to these conditions as well. As stated previously, there is nothing inherent in the nature of small-scale solar energy systems that would result in a conflict with any of the above conditions or requirements of the Hillside Management Area CUP. Both ground-mounted and structure-mounted systems and facilities could be feasibly sited and designed in accordance with the Hillside Management Areas Ordinance.

Additionally, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be required to comply with the hillside design standards contained in the existing adopted General Plan. These include the management of hillside areas to protect their natural and scenic character and to reduce risks from fire, flood, mudslides, erosion, and landslides. The placement of a small-scale solar energy system on a hillside or on a structure located on a hillside would potentially affect scenic resources and/or geological risks. However, required compliance with the County Building Code and Grading Code would ensure that geological risks have been examined and resolved (see the discussions under Criterion A(iv) and Criterion B). ~~It should also be noted that the proposed Zoning Code amendments require the highest point of a utility-scale renewable energy facility 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.~~

Although the adopted Hillside Management Areas Ordinance likely would not apply to these systems and facilities, those that may be subject to this ordinance (if proposed as part of a new residence or residential subdivision) would be required to adhere to the conditions of the ordinance in design and siting. Additionally, projects would also be required to comply with the hillside design standards contained in the existing adopted General Plan. Impacts would therefore be less than significant relative to the existing adopted Hillside Management Area Ordinance.

As noted in Section 4.6.1, the Hillside Management Area Ordinance is undergoing revisions as part of the 2015 Draft General Plan Update process. It is reasonably foreseeable that the revised Hillside Management Ordinance will be officially adopted in July 2015. As such, an analysis of this ordinance is provided herein, in addition to the above analysis of the existing adopted Hillside Management Area Ordinance.

In the revisions to the Hillside Management Area Ordinance, the requirement for obtaining a CUP in the Hillside Management Area would be triggered if proposed construction activities for a project would involve 15,000 or more cubic yards of cut and/or fill on slopes of 25% or greater on a single lot or parcel of land. There is nothing inherent in the development of a small-scale solar energy system or a utility-scale structure-mounted solar energy facility that would violate the provisions of the revised Hillside Management Ordinance. Structure-mounted systems in and of themselves would typically require little ground disturbance, if any, and would therefore

not require a CUP in a Hillside Management Area. However, structure-mounted systems that would be installed on new structures requiring a CUP in a Hillside Management Area would be included in the design drawings submitted to the County as part of the CUP application materials and would be evaluated as part of the project for consistency with the Hillside Management Area Ordinance requirements and the Hillside Design Guidelines. Small-scale ground-mounted solar energy systems would typically not fall within the requirements for a Hillside Management Area CUP, unless the system was designed in such a way that it involved 15,000 cubic yards or more of cut and fill. The maximum allowable size for such systems would be 2.5 acres. To generate 15,000 cubic yards of cut material, a grading depth of approximately 36 inches would be required across an entire 2.5-acre site. Therefore, in some cases, small-scale ground-mounted solar energy systems could potentially be subject to the Hillside Management Area Ordinance and would need to comply with the Hillside Management Area Ordinance by obtaining a CUP and by complying with the Hillside Design Guidelines.

Hillside Management Area CUP applications, under the revised ordinance, must include the following items: panoramic pictures from each corner of the development site and from the highest elevated points within the development site, exhibits showing the natural topography of the site, an open space exhibit showing any proposed open space areas, a map showing hillside constraints, a vegetation exhibit showing existing vegetation including trees, and architectural drawings for any proposed structures. Hillside Management CUPs would be subject to conditions of approval, including retaining a specified percentage of the site as open space. Additionally, the application materials must substantiate a number of facts relative to the protection of Hillside Management Area, including the following: that the proposed development preserves the physical integrity of Hillside Management Area to the greatest extent feasible, that the proposed development preserves the scenic value of Hillside Management Area to the extent feasible, that the proposed development is compatible with or enhances community character, provides open space as required in the Hillside Management Area Ordinance, and that the proposed development is in substantial compliance with the Hillside Design Guidelines. As stated previously, there is nothing inherent in the nature of small-scale or structure-mounted solar energy projects that would result in a conflict with any of the above conditions or requirements of the revised Hillside Management Area CUP. Both ground-mounted and structure-mounted systems and facilities could be feasibly sited and designed in accordance with the revised Hillside Management Area Ordinance.

Additionally, small-scale ground-mounted solar energy systems requiring a Hillside Management Area CUP and other types of development projects requiring a Hillside Management Area CUP that contain structure-mounted solar energy components would be required to comply with the Hillside Design Guidelines, a manual of design measures for Hillside Management Area that would help ensure that projects are designed in a manner that satisfies

the findings of the Hillside Management Area Ordinance. To accomplish this, the Hillside Design Guidelines include specific and measurable design techniques that can be applied to numerous types of projects. Projects subject to the revised Hillside Management Area Ordinance would be required to substantially comply with the Hillside Design Guidelines, while projects not subject to the Hillside Management Area Ordinance but still located on steep terrain would be encouraged to comply with the Hillside Design Guidelines. Design measures contained within the guidelines that would be particularly applicable to the development of ground-mounted renewable energy include the following: utilize previously graded or disturbed areas on the site; preserve the physical shape of the hillside; locate visually intrusive structures so that they are hidden from public views; retain and incorporate 50% or more of existing on-site trees and woodlands; and, avoid all healthy oak tree encroachments. Permittees would not be required to comply with all of the measures in the Hillside Design Guidelines; rather, appropriate design measures must be incorporated with several expected from each category.

Although the revised Hillside Management Area Ordinance likely would not apply to many of these systems and facilities, those that would be subject to this ordinance would be required to adhere to the conditions of the ordinance in design and siting. Additionally, projects subject to the Hillside Management Area Ordinance would also be required to comply with the Hillside Design Guidelines to ensure compliance with the ordinance. Impacts would therefore be **less than significant** relative to the revised Hillside Management Area Ordinance.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

As with small-scale solar energy systems, it is unlikely that small-scale wind energy systems and temporary MET towers would be subject to the existing adopted Hillside Management Areas Ordinance, as this ordinance only applies to certain kinds of residential developments, such as residential subdivisions. However, in the event that such a residential development were to incorporate a small-scale wind energy system and/or a temporary MET tower into its project design, the design and siting of the wind system or temporary MET tower would need to be included in the Hillside Management Area CUP application (see the discussion under Small-Scale Solar Energy Systems for examples of the items that must be included in the application package). Further, the wind energy system or temporary MET tower would need to comply with all the conditions of the Hillside Management Area CUP (examples of these conditions are

described under Small-Scale Solar Energy Systems). The majority of these conditions are mostly related to the design and density of the residential structures, but the provision for open space and the requirement to substantiate that the project is compatible with natural, biotic, cultural, scenic, and open space resources of the area could affect the siting of wind turbines. However, there is nothing inherent in the nature of wind turbines or temporary MET towers that would prevent future project applicants from being able to design a system that complies with the requirements of the Hillside Management Areas Ordinance.

Additionally, such projects would be required to comply with the hillside design standards contained in the existing adopted General Plan. These include the management of hillside areas to protect their natural and scenic character and to reduce risks from fire, flood, mudslides, erosion, and landslides. The placement of a wind turbine on a hillside or on a structure located on a hillside would potentially affect scenic resources and/or geological risks. However, required compliance with the County Building Code and Grading Code, as well as project-specific discretionary review under CEQA, would ensure that geological risks have been examined and resolved. ~~It should also be noted that the proposed project requires the highest point of a small-scale 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 within an applicable community standards district.~~ It should also be noted that Part 15 of the existing Zoning Code, which would remain in effect under the proposed project, requires small-scale wind energy systems to be located at least 25 vertical feet below the top of any adjacent major ridgeline and 100 horizontal feet from any adjacent major ridgeline. (A major ridgeline is any ridgeline that surrounds or visually dominates the landscape; see Appendix A for more details).

Although the Hillside Management Areas Ordinance would not apply to most small-scale wind energy systems and temporary MET towers, those that would be subject to this ordinance would be required to adhere to the conditions of the ordinance in design and siting. In addition, projects would be required to comply with the hillside design standards contained in the existing adopted General Plan. Impacts would therefore be less than significant relative to the existing adopted Hillside Management Area Ordinance.

As stated above under Small-Scale Solar Energy Systems, it is reasonably foreseeable that the revised Hillside Management Area Ordinance will go into effect in July 2015. As such, an analysis of this ordinance is provided herein, in addition to the above analysis of the existing adopted ordinance.

As with small-scale solar energy systems, it is unlikely that small-scale wind energy systems and temporary MET towers would be subject to the revised Hillside Management Area Ordinance, as this ordinance would only apply to projects involving cut and fill of 15,000 cubic yards and

located within a Hillside Management Area. A single small wind turbine has a rated capacity of 50 kilowatts or less. Based on this capacity size, a worst-case footprint would entail a foundation size of approximately 441 square feet and excavation of roughly 61 cubic yards. Multiple small turbines or temporary MET towers are potentially allowable on eligible properties (however, properties must be at least 0.5 acres in size). Two small wind turbines would amount to approximately 882 square feet of ground disturbance and roughly 122 cubic yards of excavation. As such, small-scale ground-mounted wind energy systems would generally not meet the requirements of being subject to the revised Hillside Management Area CUP. However, in the event that a larger development were to incorporate wind energy or a temporary MET tower, the wind energy system and/or temporary MET tower would be subject to the Hillside Management CUP as part of the overall project design. If this were the case, the design and siting of the wind system or temporary MET tower would need to be included in the Hillside Management Area CUP application (see the discussion under Small-Scale Solar Energy Systems for examples of the items that must be included in the application package under the revised Hillside Management Area Ordinance). Further, the wind energy system or temporary MET tower would need to comply with all the conditions of the Hillside Management Area CUP (examples of these conditions are described under Small-Scale Solar Energy Systems). However, there is nothing inherent in the nature of wind turbines or temporary MET towers that would prevent future project applicants from being able to design a system that complies with the requirements of the revised Hillside Management Area Ordinance. Such projects would be required to comply with the revised Hillside Design Guidelines, as described above under Small-Scale Solar Energy Systems. Certain provisions of Part 15, such as height restrictions and ridgeline setbacks, would further reduce the effect of future wind energy systems and temporary MET towers on Hillside Management Areas.

Although the revised Hillside Management Area Ordinance likely would not apply to many small-scale wind energy systems or to temporary MET towers, those that would be subject to this ordinance would be required to adhere to the conditions of the ordinance in design and siting. Additionally, projects subject to the revised Hillside Management Area Ordinance would also be required to comply with the associated Hillside Design Guidelines to ensure compliance with the ordinance. Impacts would therefore be **less than significant** relative to the revised Hillside Management Area Ordinance.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Because the proposed project area consists of the entire unincorporated County, future utility-scale ground-mounted renewable energy facilities may be located in a Hillside Management Area. Utility-scale ground-mounted solar energy facilities have historically been developed primarily on level land in the County and elsewhere in the country. However, utility-scale wind facilities sometimes use hillside areas, and there would be the potential for utility-scale ground-

mounted solar facilities to use hillside areas as well. As the existing adopted Hillside Management Areas Ordinance applies only to certain types of residential projects, utility-scale ground-mounted facilities would not fall subject to this ordinance, as they would not be considered residential projects. As such, no conflict would occur.

Utility-scale ground-mounted renewable energy projects would be required to comply with the hillside design standards contained in the existing adopted General Plan, which require development to be managed in hillside areas to protect their natural and scenic character and to reduce risks from fire, flood, mudslides, erosion, and landslides. The placement of a utility-scale facility on a hillside would potentially affect scenic resources and/or geological risks. However, required compliance with the County Building Code and Grading Code, as well as project-specific discretionary review under CEQA, would ensure that geological risks have been examined and resolved. Additionally, the proposed project requires that the highest point of a utility-scale ~~renewable~~ ground-mounted solar energy facility shall 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. For utility-scale ground-mounted wind energy facilities, the proposed Zoning Code amendments would require the highest point of such projects to be located at least 50 feet vertical feet and 300 horizontal feet from a significant ridgeline identified in the general plan, in an applicable area or community plan, or within an applicable community standards district. The proposed Zoning Code amendments would also require slope setbacks for utility-scale ground-mounted wind energy systems in the vicinity of Hillside Management Areas. Therefore, the utility-scale ground-mounted renewable energy facilities developed pursuant to the proposed project would not conflict with the Hillside Management Areas Ordinance or hillside design standards in the County's existing adopted General Plan's Conservation and Open Space Element; impacts would be less than significant relative to the existing adopted Hillside Management Area Ordinance.

As stated above under Small-Scale Solar Energy Systems, it is reasonably foreseeable that the revised Hillside Management Area Ordinance will go into effect in July 2015. As such, an analysis of this ordinance is provided herein, in addition to the above analysis of the existing adopted ordinance. Utility-scale ground-mounted projects involving 15,000 cubic yards or more of cut and fill and located within a Hillside Management Area would be required to obtain a Hillside Management Area CUP under the revised Hillside Management Area Ordinance. While the proposed Zoning Code amendments include numerous conditions of approval and findings for utility-scale ground-mounted facilities, the Hillside Management Area Ordinance would require additional conditions of approval and findings to help preserve the physical integrity and scenic value of the Hillside Management Area in which the project is located. (See the discussion under Small-Scale Solar Energy Systems for a summary of the requirements of the Hillside Management Area

CUP). Projects subject to the Hillside Management Area Ordinance would also be required to comply with the Hillside Design Guidelines to ensure compliance with the ordinance.

Certain provisions of the proposed Zoning Code amendments, such as height restrictions and ridgeline setbacks, would further reduce the effect of utility-scale ground-mounted projects on Hillside Management Areas. Projects that would be subject to the Hillside Management Area Ordinance would be required to adhere to the conditions of the ordinance in design and siting. Additionally, projects subject to the Hillside Management Area Ordinance would also be required to comply with the Hillside Design Guidelines to ensure compliance with the ordinance. Impacts would therefore be **less than significant** relative to the revised Hillside Management Area Ordinance.

Utility-Scale Structure-Mounted Wind Energy Facilities

Future utility-scale structure-mounted wind energy facilities would be subject to the existing adopted Hillside Management Areas Ordinance only if they were part of a residential subdivision. In the event that a residential project subject to the Hillside Management Areas Ordinance were to include a structure-mounted wind energy component that primarily provided for off-site energy demand, the design and siting of the wind energy portion of the project would need to be included in the Hillside Management Area CUP application (see the discussion under Small-Scale Solar Energy Systems for examples of the items that must be included in the application package). Furthermore, the wind energy facility would need to comply with the conditions of the Hillside Management Area CUP (examples of these conditions are described in the discussion under Small-Scale Solar Energy Systems). The majority of these conditions are related to the design and density of residential structures, but the requirement to substantiate that the project is compatible with natural, biotic, cultural, scenic, and open space resources of the area could affect the siting and design of the structure-mounted wind turbines. However, there is nothing inherent in the nature of utility-scale structure-mounted wind energy facilities that would conflict with the requirements of the adopted Hillside Management Areas Ordinance.

Utility-scale structure-mounted wind energy facilities would also be required to comply with the hillside design standards contained in the existing adopted General Plan. These include the management of hillside areas to protect their natural and scenic character and to reduce risks from fire, flood, mudslides, erosion, and landslides. The placement of wind turbines on a structure located on a hillside would potentially affect scenic resources and/or geological risks. However, required compliance with the County Building Code and Grading Code would ensure that geological risks have been examined and resolved. Additionally, the ridgeline measures currently in place for small-scale wind energy systems would apply to utility-scale structure-mounted wind energy facilities.~~the proposed project requires that the highest point of a utility-scale renewable energy facility shall 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,~~ For these reasons, the utility-scale structure-mounted wind energy facilities developed pursuant to the proposed project would not conflict with the Hillside Management Areas Ordinance or hillside design standards in the County's existing adopted General Plan's Conservation and Open Space Element; impacts would be **less than significant** relative to the existing adopted Hillside Management Area Ordinance.

As stated above under Small-Scale Solar Energy Systems, it is reasonably foreseeable that the revised Hillside Management Area Ordinance will go into effect in July 2015. As such, an analysis of this ordinance is provided herein, in addition to the about analysis of the existing adopted ordinance.

As with small-scale structure-mounted wind energy systems, it is unlikely that utility-scale structure-mounted wind energy facilities would be subject to the Hillside Management Areas Ordinance, as this ordinance only applies to projects involving cut and fill of 15,000 cubic yards or more and located within a Hillside Management Area. However, in the event that a larger development were to incorporate a utility-scale structure-mounted wind energy facility, the wind energy facility would be subject to the revised Hillside Management CUP as part of the overall project design. If this were the case, the design and siting of the wind energy facility would need to be included in the Hillside Management Area CUP application (see the discussion under Small-Scale Solar Energy Systems for examples of the items that must be included in the application package). Further, the wind energy facility would need to comply with all the conditions of the Hillside Management Area CUP (examples of these conditions are described under Small-Scale Solar Energy Systems). However, there is nothing inherent in the nature of a utility-scale structure-mounted wind energy facility that would prevent future project applicants from being able to design a facility that complies with the requirements of the revised Hillside Management Areas Ordinance. Such projects would be required to comply with the Hillside Design Guidelines, as described above under Small-Scale Solar Energy Systems. Certain provisions of the proposed Zoning Code amendments, such as height restrictions and ridgeline setbacks, would further reduce the effect of future utility-scale structure-mounted wind energy facilities on Hillside Management Areas. Projects that would be subject to the revised Hillside Management Area Ordinance would be required to adhere to the conditions of the ordinance in design and siting. Additionally, projects subject to the Hillside Management Area Ordinance would also be required to comply with the Hillside Design Guidelines to ensure compliance with the ordinance. Impacts would therefore be **less than significant** relative to the revised Hillside Management Area Ordinance.

4.6.5 Level of Significance Before Mitigation

Without mitigation, the following impacts would be potentially significant:

Impact GEO-1 Impacts of small-scale ground-mounted solar energy systems relative to erosion and loss of topsoil.

Impact GEO-2 Impacts of small-scale ground-mounted wind energy systems and temporary MET towers relative to erosion and loss of topsoil.

Impact GEO-3 Impacts of utility-scale ground-mounted renewable energy facilities relative to erosion and loss of topsoil.

4.6.6 Mitigation Measures

Appropriate, feasible, and enforceable mitigation measures could not be identified that would reduce potentially significant impacts associated with **Impact GEO-1** through **Impact GEO-3**.

4.6.7 Level of Significance After Mitigation

Impact GEO-1, Impact GEO-2, Impact GEO-3

Appropriate, feasible, and enforceable mitigation measures could not be identified that would reduce potentially significant impacts to less than significant; therefore, impacts would remain **potentially significant and unavoidable.**

Table 4.6-1
Prevalent Soil Types

Planning Areas	Characteristics and Associated Earthquakes
East San Gabriel Valley Planning Area	Hanford fine sandy loam Hanford gravelly sandy loam Yolo clay loam
San Fernando Valley Planning Area	Yolo loam Tujunga fine sandy loam Hanford fine sandy loam
Santa Clarita Valley Planning Area	Yolo sandy loam Santa Clara River series
West San Gabriel Valley Planning Area	Hanford fine sandy loam Chino silt loam Tujunga fine sandy loam
Santa Monica Mountains Planning Area	Santa Monica Mountains series
Gateway Planning Area	Hanford fine sandy loam Chino silt loam

Table 4.6-1
Prevalent Soil Types

Planning Areas	Characteristics and Associated Earthquakes
Metro Planning Area	Hanford fine sandy loam Ramona loam Altamont clay loam
South Bay Planning Area	Yolo loam Montezuma clay adobe Oakley fine sand
Westside Planning Area	Ramona loam Ramona sandy loam Yolo loam
Antelope Valley Planning Area	Antelope Valley series (predominantly loam, gravelly loam, and sandy loam in area immediately northeast of San Andreas Fault)
Coastal Islands Planning Area	Loam, clay loam, and gravelly loam, often derived from weathering of parental volcanic bedrock

Sources: AVIRWM 2007; County DPW 2014b; USDA 2008.

Table 4.6-2
Prominent Active Faults in Los Angeles County

Fault Name	Planning Area(s)	Characteristics and Associated Earthquakes
Antelope Valley		
San Andreas Fault System	Antelope Valley Planning Area	This fault system is a tectonic plate boundary and is often considered the most significant earthquake fault zone in the state. It is approximately 750 miles long and is characterized as a right-lateral strike-slip fault that is capable of producing earthquakes with probable magnitudes of Mw 6.8–8.0.The last major rupture occurred in 1857 during a Mw 7.9 earthquake, called the Fort Tejon Earthquake.
Unincorporated Urban Islands		
Newport–Inglewood Fault Zone	Westside Planning Area South Bay Planning Area	This fault zone is a system of right-lateral strike-slip faulting that extends approximately 50 miles and is associated with a chain of low hills that extend from Culver City to Signal Hill. The system is capable of producing earthquakes with probable magnitudes of Mw 6.0–7.4. The magnitude Mw 6.4 Long Beach Earthquake occurred on this fault zone in 1933.
Raymond Fault	West San Gabriel Valley Planning Area	This left-lateral fault is associated with minor reverse slip and is capable of producing earthquakes with probable magnitudes of Mw 6.0–7.0. The fault extends approximately 15 miles and is associated with the 1998 Pasadena Earthquake.
San Fernando Fault Zone	San Fernando Valley Planning Area	This is a thrust fault that extends approximately 10 miles through Sunland and San Fernando. It is capable of producing earthquakes with probable magnitudes of Mw 6.0–6.8 and is associated with the 1971 Mw 6.5 San Fernando (Sylmar) Earthquake.

Table 4.6-2
Prominent Active Faults in Los Angeles County

Fault Name	Planning Area(s)	Characteristics and Associated Earthquakes
San Gabriel Fault Zone	West San Gabriel ValleyPlanning Area Santa Clarita Valley Planning Area	This fault zone is characterized as primarily a right-lateral strike-slip fault that extends approximately 85 miles. The dip of the fault is generally steep and to the north. The western half of the zone is likely more active than the eastern half.
Sierra Madre Fault Zone	West San Gabriel ValleyPlanning Area	This is a reverse fault that extends approximately 35 miles and is often divided into five main segments. The system is capable of producing earthquakes with probable magnitudes of Mw 6.0–7.0.

Source: SCEDC 2012.

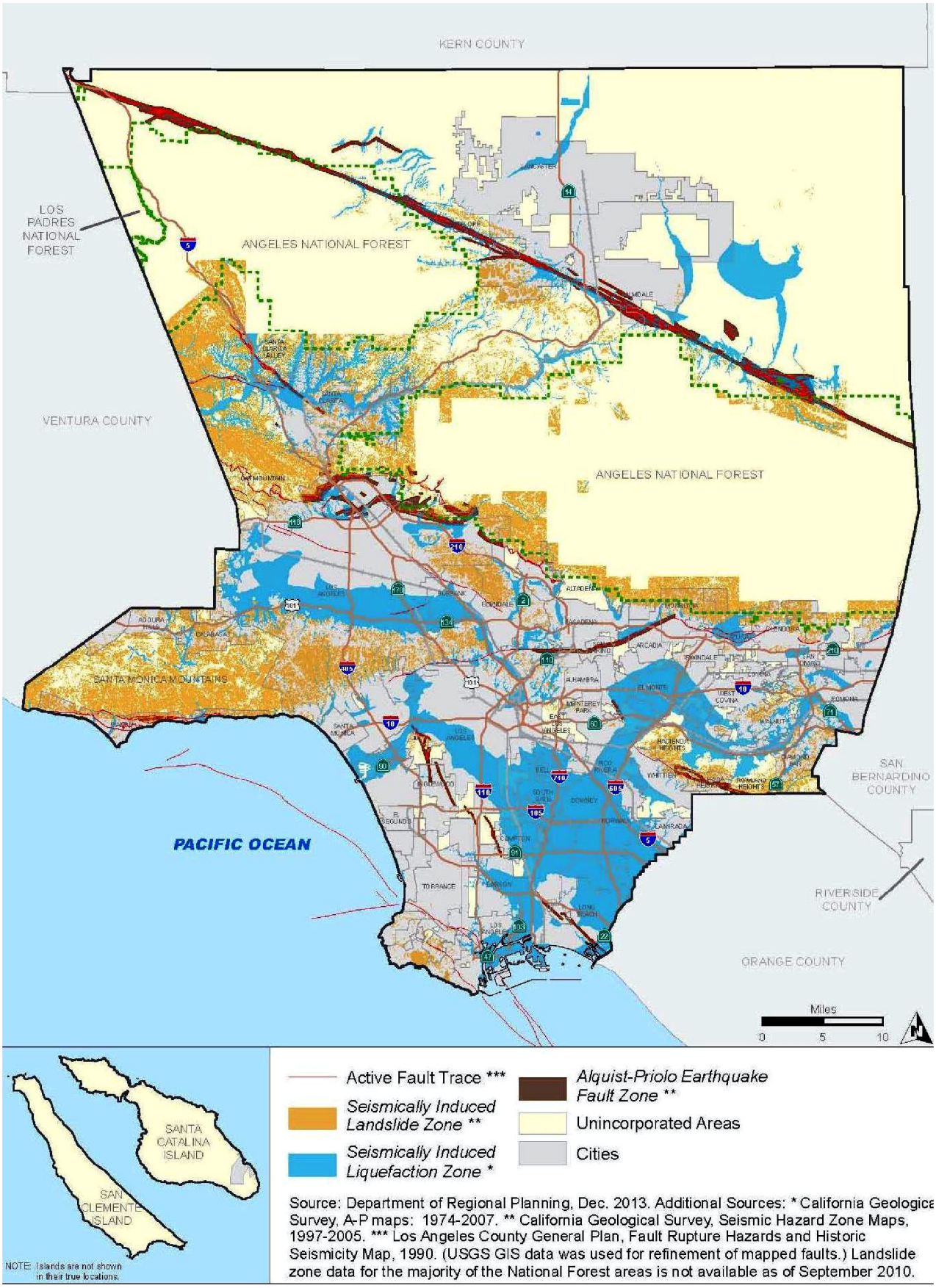

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FIGURE 4.6-1
Seismic Hazards

Los Angeles County Renewable Energy Ordinance EIR

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4.7 GREENHOUSE GAS EMISSIONS

This section describes the existing setting of the proposed project ~~site and vicinity~~ area as it relates to greenhouse gas (GHG) emissions and climate change, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The following topics related to GHGs are examined in this section:

- GHG concepts
- Applicable regulatory framework
- Impacts from the proposed project with regard to the generation of GHGs, either directly or indirectly
- Impacts from the proposed project with regard to conflict with an applicable plan, policy, or regulation

4.7.1 Existing Conditions

4.7.1.1 The Greenhouse Gas Effect and Greenhouse Gases

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind, lasting for an extended period (decades or longer). Gases that trap heat in the atmosphere are often called GHGs. The greenhouse effect traps heat in the troposphere through a threefold process: short-wave radiation emitted by the Sun is absorbed by the Earth, the Earth emits a portion of this energy in the form of long-wave radiation, and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and back toward the Earth. This "trapping" of the long-wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

Principal GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), and water vapor. Some GHGs, such as CO_2, CH_4, and N_2O, can occur naturally and are emitted into the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely byproducts of fossil-fuel combustion, whereas CH_4 results mostly from off-gassing associated with agricultural practices and landfills. Human-caused GHGs are associated with certain industrial products and processes and have a much greater heat-absorption potential than CO_2. They include fluorinated gases such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (CAT 2006).

The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Without it, the temperature of the Earth would be about 0 degrees Fahrenheit (°F) (–18 degrees

Celsius (°C)) instead of its current 57°F (14°C). Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect.

The effect that each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP). For example, the GWP of CH_4 is 21, and the GWP of N_2O is 310. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG gas emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2E).[1]

4.7.1.2 Contributions to Greenhouse Gas Emissions

In 2012, the United States produced 6,501.5 million metric tons (MMT) of CO_2E (EPA 2014). The primary GHG emitted by human activities in the United States was CO_2, representing approximately 82.7% of total GHG emissions. The largest source of CO_2, and of overall GHG emissions, was from fossil-fuel combustion, which accounted for approximately 78% of the CO_2 emissions in 2012.

According to the 2011 GHG inventory data compiled by California Air Resources Board (CARB) for the California Greenhouse Gas Inventory for 2000–2011, California emitted 448 MMT CO_2E of GHGs, including emissions resulting from out-of-state electrical generation (CARB 2013). The primary contributors to GHG emissions in California are transportation, industry, electric power production from both in-state and out-of-state sources, agriculture, and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions in 2011 are presented in Table 4.7-1, Greenhouse Gas Sources in California.

4.7.1.3 Potential Effects of Human Activity on Climate Change

Globally, climate change has the potential to impact numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. In California, climate change impacts have the potential to affect sea level, agriculture, snowpack and water supply, forestry, wildfire risk, public health, and electricity demand and supply (CCCC 2006). The primary effect of global climate change has been a rise in average global tropospheric temperature of 0.2°C (0.36°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Scientific modeling predicts that continued emissions of GHGs at or above current rates will induce more extreme climate changes during the twenty-first

1. The CO2 equivalent for a gas is derived by multiplying the mass of the gas by the associated GWP, such that metric tons of CO2E = (metric tons of a GHG) × (GWP of the GHG). For example, the GWP for CH4 is 21. This means that emissions of 1 metric ton of CH4 are equivalent to emissions of 21 metric tons of CO2.

century than were observed during the twentieth century. A warming of approximately 0.2°C (0.36°F) per decade is projected, and there are identifiable signs that global warming could be taking place now, including substantial ice loss in the Arctic (IPCC 2007).

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. Climate change is already affecting California: Average temperatures have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling in the form of snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010a). Climate change modeling using emissions rates from the year 2000 shows that further warming will occur, which could induce further changes in the global climate system during the current century. Changes to the global climate system and ecosystems, and to California, could include the following:

- The loss of sea ice and mountain snowpack resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures (IPCC 2007)
- A rise in global average sea level, primarily due to thermal expansion and melting of glaciers and ice caps and the Greenland and Antarctic ice sheets (IPCC 2007)
- Changes in weather that include widespread changes in precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and intensity of tropical cyclones (IPCC 2007)
- A decline of Sierra snowpack, which accounts for approximately half of the surface water storage in California, by 30% to as much as 90% over the next 100 years (CAT 2006)
- An increase in the number of days conducive to O3 formation by 25% to 85% (depending on the future temperature scenario) in high-O3 areas of Los Angeles and the San Joaquin Valley by the end of the twenty-first century (CAT 2006)
- A high potential for erosion of California's coastlines and seawater intrusion into the Sacramento/San Joaquin Delta and levee systems due to the rise in sea level (CAT 2006)

4.7.1.4 Los Angeles County Emissions Inventory

In January 2014, the Los Angeles County (County) Department of Regional Planning released a draft *Unincorporated Los Angeles County Community Climate Action Plan 2020* (CCAP). As part of this plan, the County analyzed emissions generated by community activities in the unincorporated areas of the County during 2010 and calculated projected emissions for the year 2020. (Under the County's climate action planning framework, community activities are

separated from County operations, which are inventoried and addressed in the Municipal Climate Action Plan.) The CCAP's final draft was released in July 2014, as part of the Air Quality Element of the ~~2014 Draft~~ General Plan Update.[2]

The inventory of 2010 community emissions was conducted using widely accepted methodologies and procedures used by federal, state, and local air quality management and environmental agencies. Emissions from the following sources were analyzed in both the 2010 inventory and the 2020 forecast:

- Building Energy – Natural gas and electricity consumed by residential, commercial, and industrial buildings
- Transportation – Fuel consumed by on-road and off-road vehicles operating within unincorporated areas
- Water Conveyance and Wastewater Generation – Electricity consumed by water importation and wastewater treatment for the unincorporated areas
- Waste Generation – Methane emissions from waste generated by communities within the unincorporated areas
- Agricultural Activities – Nitrogen oxide emissions from fertilizer application and methane emissions from manure management in the unincorporated areas
- Stationary Sources – Fuel consumption from stationary sources located within the unincorporated areas

The 2010 inventory is shown in Table 4.7-2, 2010 Greenhouse Gas Inventory for Unincorporated Los Angeles County by Sector, and the 2020 forecast is shown in Table 4.7-3, 2020 Greenhouse Gas Forecast for Unincorporated Los Angeles County by Sector.

4.7.2 Relevant Plans, Policies, and Ordinances

Regulation of GHGs in the United States and California is relatively recent, beginning early in the 2000s. In the absence of major federal efforts, California Governor Arnold Schwarzenegger and the state legislature took the initiative to establish goals for reductions of GHG emissions in California and to prescribe a regulatory approach to ensuring that the goals would be met. The federal government, primarily through actions of the U.S. Environmental Protection Agency (EPA), has also begun to regulate GHG emissions, although not as comprehensively. This section

[2] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

provides a brief foundation for these regulatory efforts, and discusses the key federal and state regulatory efforts that could apply to development under the proposed project and the users of such development.

Federal

Massachusetts v. EPA

On April 2, 2007, in *Massachusetts v. EPA*, the U.S. Supreme Court directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA administrator is required to follow the language of Section 202(a) of the Clean Air Act. On December 7, 2009, the administrator signed a final rule with two distinct findings regarding GHGs under the Clean Air Act:

- Current and projected concentrations of GHGs in the atmosphere—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6— threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."
- The combined emissions of GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act

On December 19, 2007, President George W. Bush signed the Energy Independence and Security Act of 2007. Among other key measures, the act would do the following to aid in the reduction of national GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel by 2022.
2. Set a target of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by model year 2020, and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
3. Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy-

efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

EPA and NHTSA Joint Final Rule for Vehicle Standards

On April 1, 2010, EPA and NHTSA announced a joint final rule to establish a national program consisting of new standards for light-duty vehicles with model years 2012 through 2016. The joint rule is intended to reduce GHG emissions and improve fuel economy. EPA is finalizing the first-ever national GHG emissions standards under the Clean Air Act, and NHTSA is finalizing Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act (EPA and NHTSA 2010). This final rule follows the EPA and Department of Transportation's joint proposal on September 15, 2009, and is the result of President Obama's May 2009 announcement of a national program to reduce GHGs and improve fuel economy (Fed. Reg., Title 75, §§ 25324–25728). The final rule became effective on July 6, 2010 (Fed. Reg., Title 75, §§ 25324–25728).

The EPA's GHG standards require new passenger cars, light-duty trucks, and medium-duty passenger vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile by model year 2016, equivalent to 35.5 mpg if the automotive industry were to meet this CO_2 level through fuel economy improvements alone. The CAFE standards for passenger cars and light trucks will be phased in between 2012 and 2016, with the final standards equivalent to 37.8 mpg for passenger cars and 28.8 mpg for light trucks, resulting in an estimated combined average of 34.1 mpg. Together, these standards will cut GHG emissions by an estimated 960 MMT and save 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program. The rules will simultaneously reduce GHG emissions, improve energy security, increase fuel savings, and provide clarity and predictability for manufacturers (EPA 2013).

In August 2012, EPA and NHTSA approved a second round of GHG and CAFE standards for model years 2017 and beyond (Fed. Reg., Title 77, §§ 62624–63200). These standards will reduce motor vehicle GHG emissions to 163 grams of CO_2 per mile, which is equivalent to 54.5 mpg if this level were achieved solely through improvements in fuel efficiency, for cars and light-duty trucks by model year 2025. A portion of these improvements, however, will likely be made through reductions in air conditioning leakage and through use of alternative refrigerants, which would not contribute to fuel economy. The first phase of the CAFE standards (for model years 2017 to 2021) is projected to require, on an average industry-fleet-wide basis, a range from 40.3 to 41.0 mpg by model year 2021. The second phase of the CAFE program (for model years 2022 to 2025) is projected to require, on an average industry-fleet-wide basis, a range from 48.7 to 49.7 mpg by model year 2025. The second phase of standards has not been finalized due to the statutory requirement that NHTSA set average fuel economy standards not more than 5 model years at a time. The regulations also include targeted incentives to encourage early adoption and

introduction into the marketplace of advanced technologies to dramatically improve vehicle performance, including the following:

- Incentives for electric vehicles, plug-in hybrid electric vehicles, and fuel-cell vehicles
- Incentives for hybrid technologies for large pickup trucks and for other technologies that achieve high fuel economy levels on large pickup trucks
- Incentives for natural gas vehicles
- Credits for technologies with potential to achieve real-world GHG reductions and fuel economy improvements that are not captured by the standard test procedures

State

Title 24

Although not originally intended to reduce GHG emissions, California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Cal. Code Regs., Title 24, § 6) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy-efficient technologies and methods. The premise for the standards is that energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for space and water heating) results in GHG emissions. Therefore, increased energy efficiency in buildings results in relatively lower rates of GHG emissions on a building-by-building basis.

Assembly Bill 1493

In response to the transportation sector accounting for more than half of California's CO_2 emissions, Assembly Bill (AB) 1493 (Pavley) was enacted on July 22, 2002. AB 1493 required CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emissions standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards resulted in a reduction of approximately 22% of GHG emissions compared to the emissions from the 2002 fleet. The mid-term (2013–2016) standards are estimated to result in a reduction of approximately 30%.

Executive Order S-3-05

In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The executive order established the following goals: GHG emissions should be reduced to 2000 levels by 2010, GHG emissions should be reduced to 1990 levels by 2020, and GHG emissions should be reduced to 80% below 1990 levels by 2050. The California EPA secretary is required to coordinate efforts of various agencies to collectively and efficiently reduce GHGs. The Climate Action Team is responsible for implementing emissions reduction programs. Representatives from several state agencies compose the Climate Action Team. Under the executive order, the California EPA secretary is directed to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team fulfilled its initial report requirements through the 2006 *Climate Action Team Report to Governor Schwarzenegger and the Legislature* (CAT 2006).

The 2009 *Climate Action Team Biennial Report* (CAT 2010a), published in April 2010, expands on the policy outlined in the 2006 assessment. The 2009 report provides new information and scientific findings regarding the development of new climate and sea level projections using information and tools that have recently become available, and evaluates climate change within the context of broader social changes such as land use changes and demographics. The 2009 report also identifies the need for additional research in several areas that affect climate change in order to support effective climate change strategies. The areas of climate change determined to require future research are vehicle and fuel technologies, land use and smart growth, electricity and natural gas, energy efficiency, renewable energy and reduced carbon energy sources, low GHG technologies for other sectors, carbon sequestration, terrestrial sequestration, geologic sequestration, economic impacts and considerations, social science, and environmental justice.

Subsequently, the 2010 *Climate Action Team Report to Governor Schwarzenegger and the California Legislature* (CAT 2010b) reviews past climate action milestones, including voluntary reporting programs; GHG standards for passenger vehicles; the Low Carbon Fuel Standard, a statewide renewable energy standard; and the cap-and-trade program. Additionally, the 2010 report includes a cataloguing of recent research and ongoing projects; mitigation and adaptation strategies identified by sector (e.g., agriculture, biodiversity, electricity, and natural gas); actions that can be taken at the regional, national, and international levels to mitigate the adverse effects of climate change; and today's outlook on future conditions. The 2010 report also focuses on case studies involving collaborative efforts among multiple agencies on research projects related to climate change and policy development.

Assembly Bill 32

In furtherance of the goals established in Executive Order S-3-05, the legislature enacted AB 32 (Núñez and Pavley), the California Global Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27, 2006. The GHG emissions limit is equivalent to the 1990 levels, which are to be achieved by 2020.

CARB has been assigned to carry out and develop the programs and requirements necessary to achieve the goals of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions. This program will be used to monitor and enforce compliance with the established standards. CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. AB 32 allows CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emissions limitation, emissions reduction measure, or market-based compliance mechanism adopted.

The first action under AB 32 resulted in the adoption of a report listing early action GHG emissions reduction measures on June 21, 2007. The early actions include three specific GHG control rules. On October 25, 2007, CARB approved an additional six early action GHG reduction measures under AB 32. The three original early action regulations meeting the narrow legal definition of "discrete early action GHG reduction measures" consist of the following:

1. A low-carbon fuel standard to reduce the "carbon intensity" of California fuels
2. Reduction of refrigerant losses from motor vehicle air conditioning system maintenance to restrict the sale of "do-it-yourself" automotive refrigerants
3. Increased methane capture from landfills to require broader use of state-of-the-art methane capture technologies

The additional six early action regulations, which were also considered "discrete early action GHG reduction measures," consist of the following:

1. Reduction of aerodynamic drag, and thereby fuel consumption, from existing trucks and trailers through retrofit technology
2. Reduction of auxiliary engine emissions of docked ships by requiring port electrification
3. Reduction of perfluorocarbon (PFC) emissions from the semiconductor industry
4. Reduction of propellants in consumer products (e.g., aerosols, tire inflators, and dust removal products)

5. Requirements that all tune-up, smog check, and oil change mechanics ensure proper tire inflation as part of overall service in order to maintain fuel efficiency
6. Restriction on the use of SF_6 from non-electricity sectors if viable alternatives are available

As required under AB 32, on December 6, 2007, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was set at 427 MMT CO_2E. In addition to the 1990 emissions inventory, CARB also adopted regulations requiring mandatory reporting of GHGs for the large facilities that account for 94% of GHG emissions from industrial and commercial stationary sources in California. Approximately 800 separate sources fall under the new reporting rules, and include electricity generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and other industrial sources that emit CO_2 in excess of specified thresholds.

On December 11, 2008, CARB approved the *Climate Change Proposed Scoping Plan: A Framework for Change* (Scoping Plan) (CARB 2008) to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program.

Key elements of the Scoping Plan include the following:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a statewide renewables energy mix of 33%
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard
- Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of California's long-term commitment to AB 32 implementation

Senate Bill 1368

In September 2006, Governor Schwarzenegger signed Senate Bill (SB) 1368, which requires the California Energy Commission to develop and adopt regulations for GHG emissions performance standards for the long-term procurement of electricity by local, publicly owned utilities. These standards must be consistent with the standards adopted by the California Public Utilities Commission. This effort will help protect energy customers from financial risks associated with investments in carbon-intensive energy generation by allowing new capital investments in power plants whose GHG emissions are as low as or lower than new combined-cycle natural gas plants by requiring imported electricity to meet GHG performance standards in California and by requiring that the standards be developed and adopted in a public process.

Executive Order S-1-07

Issued on January 18, 2007, Executive Order S-1-07 sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO_2E grams per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020. Carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel—extraction/feedstock production, processing, transportation, and final consumption—per unit of energy delivered. CARB adopted the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources such as algae, wood, and agricultural waste. In addition, the Low Carbon Fuel Standard would drive the availability of plug-in hybrid, battery electric, and fuel-cell power motor vehicles. The Low Carbon Fuel Standard is anticipated to lead to the replacement of 20% of the fuel used in motor vehicles with alternative fuels by 2020.

Senate Bill 375

In August 2008, the legislature passed, and on September 30, 2008, Governor Schwarzenegger signed SB 375 (Steinberg), which addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. Regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035, as determined by CARB, are required to consider the emissions reductions associated with vehicle emissions standards (see SB 1493), the composition of fuels (see Executive Order S-1-07), and other CARB-approved measures to reduce GHG emissions. Regional metropolitan planning organizations will be responsible for preparing a Sustainable Communities Strategy within their regional transportation plans. The goal of the Sustainable Communities Strategy is to establish a development plan for the region, which, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If a Sustainable Communities Strategy is unable to achieve the GHG reduction target, a metropolitan planning organization must prepare

an alternative planning strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies. SB 375 provides incentives for streamlining California Environmental Quality Act (CEQA) requirements by substantially reducing the requirements for "transit priority projects," as specified in SB 375, and eliminating the analysis of the impacts of certain residential projects on global warming and the growth-inducing impacts of those projects when the projects are consistent with the SCS or alternative planning strategy. On September 23, 2010, CARB adopted SB 375 targets for the regional metropolitan planning organizations. The targets for the Southern California Association of Governments are an 8% reduction in emissions per capita by 2020 and a 13% reduction by 2035. The Southern California Association of Governments prepared its Regional Transportation Plan/ Sustainable Communities Strategy, which was adopted by the Southern California Association of Governments Regional Council on April 4, 2012. The plan quantified a 9% reduction in emissions by 2020 and a 16% reduction by 2035. On June 4, 2012, the CARB executive officer issued an executive order accepting the Southern California Association of Governments' quantification of GHG reductions and the determination that the Sustainable Communities Strategy would achieve the GHG emissions reduction targets established by CARB.

Executive Order S-13-08

Governor Schwarzenegger issued Executive Order S-13-08 on November 14, 2008. The executive order is intended to hasten California's response to the impacts of global climate change, particularly sea level rise. It directs state agencies to take specified actions to assess and plan for such impacts. It directed the California Natural Resources Agency, in cooperation with the California Department of Water Resources, California Energy Commission, California's coastal management agencies, and the Ocean Protection Council, to request that the National Academy of Sciences prepare a Sea Level Rise Assessment Report by December 1, 2010. The Ocean Protection Council, California Department of Water Resources, and California Energy Commission, in cooperation with other state agencies, are required to conduct a public workshop to gather information relevant to the Sea Level Rise Assessment Report. The Business, Transportation, and Housing Agency was ordered to assess, within 90 days of the order, the vulnerability of the state's transportation systems to sea level rise. The Governor's Office of Planning and Research and the California Natural Resources Agency are required to provide land use planning guidance related to sea level rise and other climate change impacts. The order also required the other state agencies to develop adaptation strategies by June 9, 2009, to respond to the impacts of global climate change that are predicted to occur over the next 50 to 100 years. A discussion draft adaptation strategies report was released in August 2009, and the final adaption strategies report was issued in December 2009. To assess the state's vulnerability, the report summarizes key climate change impacts for the following areas: public health, ocean and

coastal resources, water supply and flood protection, agriculture, forestry, biodiversity and habitat, and transportation and energy infrastructure. The report then recommends strategies and specific responsibilities related to water supply, planning and land use, public health, fire protection, and energy conservation.

Senate Bill X1 2

On April 12, 2011, Governor Jerry Brown signed SB X1 2 in the First Extraordinary Session to expand the Renewable Portfolio Standard by establishing a goal of 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts (MW) or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. In addition to the retail sellers covered by SB 107, SB X1 2 adds local, publicly owned electric utilities to the Renewable Portfolio Standard. By January 1, 2012, the California Public Utilities Commission was required to establish the quantity of electricity products from eligible renewable energy resources to be procured by retail sellers in order to achieve targets of 20% by December 31, 2013; 25% by December 31, 2016; and 33% by December 31, 2020. The statute also requires that the governing boards for local, publicly owned electric utilities establish the same targets, and that their governing boards be responsible for ensuring compliance with these targets. The California Public Utilities Commission is responsible for enforcement of the Renewable Portfolio Standard for retail sellers, and the California Energy Commission and CARB enforce the requirements for local, publicly owned electric utilities.

Local

Energy and Environmental Program

In 2006, the County Board of Supervisors adopted an Energy and Environmental Program for the development and enhancement of energy conservation and environmental programs for County departments. These programs contribute to the County's efforts to reduce communitywide GHGs and GHGs from County operations. The Energy and Environmental Program consists of the following programs:

- ***Energy and Water Efficiency:*** The Energy and Environmental Program establishes a reduction target for GHGs of 20% by 2015, and implements conservation monitoring practices and water and energy shortage awareness programs for County buildings and departments.
- ***Green Building Construction and Operations:*** The County's Green Building Program consists of the Green Building, Low Impact Development, and Drought Tolerant Ordinances.

- ***Environmental Stewardship:*** The Environmental Stewardship Program measures and reduces the County's environmental footprint, including the amount of GHGs produced through direct and indirect County operations, and develops climate-change-related policies.
- ***Public Outreach and Education:*** The Public Outreach and Education Program uses the County's communication and outreach channels to share utility industry information, facilitate implementation of subsidy and assistance programs, and spread energy conservation practices throughout the region (County of Los Angeles 2014a, Chapter 8, pp. 114–115).

Los Angeles County Community Climate Action Plan

The County prepared a CCAP to evaluate, track, and reduce GHG emissions in the unincorporated areas of the County. In July 2014, the County released the final draft of the CCAP, a component of the Air Quality Element of the ~~2014 Draft~~ General Plan Update. The CCAP will go into effect when the General Plan Update is adopted, which is anticipated to occur in July 2015.

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 2014b, p. ES-1).

The CCAP includes 26 local actions that supplement statewide initiatives to reduce GHG emissions. The County groups these 26 local actions into five strategy areas: Green Building and Energy; Land Use and Transportation; Water Conservation and Wastewater; Waste Reduction, Reuse, and Recycling; and Land Conservation and Tree Planting.

The Green Building and Energy strategy addresses emissions from energy used in residential, commercial, and industrial buildings. The actions that are grouped into this strategy are separated into two categories: energy efficiency and renewable energy. The majority of GHG reductions that the County has projected for the building energy sector are planned to be achieved by increasing renewable energy generation. Action BE-3: Solar Installations establishes solar installation programs for a variety of land uses, including single-family homes, commercial developments, and carports. This future action, which is part of the CCAP and is not an action of the proposed project, supports project developers and current property owners by promoting low-interest financing and streamlining regulatory procedures related to renewable energy installations. Action BE-4: Alternative Renewable Energy Programs, which is part of the CCAP and is not an action of the proposed project, complements BE-3: Solar Installations by exploring opportunities to expand wind, geothermal, and hydropower resources throughout the County. Developing these resources will diversify the County's electricity portfolio and improve the flexibility and resiliency of power delivery (County of Los Angeles 2014b, pp. 4-3 through 4-7).

Public agencies and private developers will be able to use the CCAP to comply with project-level review requirements pursuant to CEQA. CEQA guidelines specify that CEQA project evaluation of GHG emissions can "tier off" a programmatic analysis of GHG emissions, provided that the programmatic analysis (or climate action plan) complies with the CEQA Guidelines (Cal. Code Regs., Title 14, § 15183.5), which requires climate action plans to include specific components, such as quantified GHG emissions and measures to achieve the specified emissions level. Once the County's CCAP is adopted, project-specific environmental documents that incorporate applicable CCAP actions can tier off the environmental impact report (EIR) certified for the County's general plan and CCAP to meet project-level CEQA evaluation requirements for GHG emissions. Tiering from a general plan EIR potentially eliminates the need to prepare a quantitative assessment of project-level GHG emissions. Rather, project-specific environmental documents that rely on the CCAP can qualitatively evaluate GHG impacts by identifying all applicable CCAP actions and describing how those actions have been incorporated into project design and/or identified as mitigation. This type of tiered analysis can reduce project costs and streamline the County permit process. Projects that demonstrate consistency with applicable CCAP actions can be determined to have a less than significant cumulative impact on GHG emissions and climate change, notwithstanding substantial evidence that warrants a more detailed review of project-level GHG emissions (County of Los Angeles 2014b, pp. 1-1 and 1-2).

4.7.3 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts related to GHGs are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

B. Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

4.7.4 Impacts Analysis

Criterion A: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

As described in Section 4.7.1.1, the principal GHGs are CO_2, CH_4, N_2O, O_3, and water vapor. Some GHGs, such as CO_2, CH_4, and N_2O, can occur naturally and are emitted into the atmosphere through natural processes and human activities. A GHG emissions inventory prepared for the unincorporated County for 2010 identified building energy and transportation as the first (49%) and second (42%) largest contributors, respectively, to GHG emissions (refer to

Table 4.7-2). Building energy refers to natural gas and electricity consumed by residential, commercial, and industrial buildings. Transportation energy includes fuel consumed by on-road and off-road vehicles operating within unincorporated areas. 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, which is consistent with the statewide reductions under AB 32. California's AB 32, the Global Warming Solutions Act of 2006, commits to reducing statewide GHG emissions to 1990 levels by 2020. The CCAP, once adopted, would establish a plan for achieving this goal, describe specific strategy areas for each of the major emissions sectors, and provide details on the 2010 and projected 2020 emissions in the unincorporated areas (County of Los Angeles 2014b, p. 3-1).

Globally, climate change has the potential to impact numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. In California, climate change impacts have the potential to affect sea level, agriculture, snowpack and water supply, forestry, wildfire risk, public health, and electricity demand and supply (CCCC 2006). The primary effect of global climate change has been a rise in average global tropospheric temperature of 0.2°C (0.36°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. A warming of approximately 0.2°C (0.36°F) per decade is projected, and there are identifiable signs that global warming could be taking place now, including substantial ice loss in the Arctic (IPCC 2007).

Although the proposed project facilitates development of renewable energy sources in place of typical fossil-fuel-based electrical generation, resulting in long-term air quality benefits, future renewable energy systems and facilities could have the potential to result in emissions related to vehicle trips. These trips would be generated by construction and maintenance workers commuting to the project site and from the use of construction and maintenance equipment. Therefore, future renewable energy systems and facilities may generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. An individual project's GHG emissions will generally not result in direct impacts under CEQA, as the climate change issue is global; however, an individual project could be found to contribute to a potential cumulatively considerable impact. CEQA Guidelines (Cal. Code Regs., Title 14, § 15130(f)) states that an EIR shall analyze GHG emissions resulting from a proposed project when the incremental contribution of those emissions may be cumulatively considerable.

The proposed project would apply to the unincorporated areas of the County. As discussed in Section 4.3, Air Quality, the distinct geographical areas of the County—the Antelope Valley and the Los Angeles Basin—are reflected by the boundaries of the two air basins that divide the County. The Los Angeles Basin is part of the South Coast Air Basin, and the Antelope Valley is

part of the Mojave Desert Air Basin. The South Coast Air Quality Management District (SCAQMD) has jurisdiction over, and has adopted GHG thresholds applicable within, the South Coast Air Basin. The Antelope Valley lies within the Antelope Valley Air Quality Management District (AVAQMD), which has jurisdiction over the part of the Mojave Desert Air Basin that lies within Los Angeles County.

SCAQMD Greenhouse Gas Significance Thresholds

The SCAQMD has adopted a significance threshold of 10,000 metric tons (MT) CO_2E per year for permitted (stationary) sources of GHG emissions for which SCAQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, the SCAQMD has convened a GHG CEQA Significance Threshold Working Group.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, the SCAQMD requires an assessment of GHG emissions. The SCAQMD is proposing a "bright-line" screening-level threshold of 3,000 MT CO_2E annually for all land use types, or the following land-use-specific thresholds: 1,400 MMT CO_2E for commercial projects, 3,500 MT CO_2E for residential projects, or 3,000 MT CO_2E for mixed-use projects. This bright-line threshold is based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on this review of 711 CEQA projects, 90% of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore less than cumulatively considerable, impact on GHG emissions.

AVAQMD Greenhouse Gas Significance Thresholds

The Antelope Valley lies within the AVAQMD, which has jurisdiction over the part of the Mojave Desert Air Basin that lies within Los Angeles County. The AVAQMD has established GHG thresholds of significance of 90,718 MT CO_2E per year. The thresholds are applied to both construction and operational phases of the project, regardless of whether they are stationary or mobile sources, resulting in a conservative estimate of GHG emissions impacts of a proposed project. The AVAQMD also has a daily threshold of 548,000 pounds per day for multi-phase projects with phases shorter than 1 year.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space

(O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Vehicular traffic related to construction and operations and maintenance is a source of GHG emissions that could result from small-scale solar energy systems and utility-scale structure-mounted solar energy facilities. GHG emissions could result from construction activities and equipment, construction worker commuting trips, and traffic from operations and maintenance of these systems and facilities. The exact locations and numbers of future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities that could result under the proposed project are currently unknown. However, as discussed in Section 4.16, Traffic and Circulation, future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities are not expected to generate substantial traffic.

Construction

Construction traffic would be limited to the delivery of component parts and equipment, and if a concrete foundation must be poured for ground-mounted systems or if assistance is needed to erect the solar panels, one or two additional vehicles/equipment may be required. Some small-scale solar energy systems, such as roof-mounted panels, would not require construction vehicles at the project site, since they can typically be installed by the property owner. Only small-scale solar energy systems requiring substantial earth-moving activities for the construction of a support structure would require heavy, drivable equipment. Utility-scale structure-mounted solar energy facilities construction traffic would mostly likely be limited to the delivery of component parts and trips associated with equipment installers. Because traffic generated by the construction of these systems and facilities would be relatively minor, GHG impacts as a result of construction emissions would be **less than significant**.

Operations and Maintenance

Maintenance of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be completed by the property owner, an on-site maintenance crew, or an off-site maintenance crew. Maintenance would mainly consist of cleaning, typically once to twice a year, and checking connections, servicing inverters, and servicing trackers for larger solar systems and facilities. For small systems, maintenance may consist of the property owner visually inspecting and cleaning the solar energy system. If additional maintenance is required, it is anticipated that one vehicle would access the site and minimal equipment would be needed. Maintenance vehicles traveling to future project sites would generate GHG emissions. The locations and actions of future projects are unknown at this time; therefore, actual GHG emissions cannot be quantified. However, since future maintenance activities for small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be infrequent and would occur for short periods, the emissions of GHGs from maintenance activities would be minimal. Since minimal vehicles and equipment would be required for maintenance at future project sites, future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities implemented under the proposed project are not expected to result in a significant generation of GHGs. GHG impacts as a result of operations and maintenance activities would be **less than significant**.

Program-Level Components

Under the proposed project, development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA at a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Vehicular traffic related to construction, and potentially related to operations and maintenance, is a source of GHG emissions that could result from small-scale wind energy systems and temporary MET towers. GHG emissions could result from construction activities and equipment, construction worker commuting trips, and traffic from operations and maintenance of these systems. The exact location and number of future small-scale wind energy systems and temporary MET towers ~~that could result under the proposed project~~ is currently unknown. However, as discussed in Section 4.3, Air Quality, future small-scale wind energy systems and temporary MET towers would generate minimal traffic.

Construction

Construction activities for small-scale wind energy systems and temporary MET towers may generate a minimal amount of traffic on project-area roadways. Construction traffic would be limited to the delivery of component parts and equipment (if the turbine is too large for the individual property owner to manage); if a concrete foundation must be poured or if assistance is needed to erect the turbine tower, one or two additional vehicles/equipment may be required. Some smaller turbines, such as roof-mounted turbines, would not require construction vehicles at the project site, since they can typically be installed by the property owner. Only turbines requiring substantial earth-moving activities or those requiring delivery of a larger-scale turbine tower or hub equipment would require heavy, drivable equipment.

Due to the brief construction time associated with installation of small-scale wind energy systems and temporary MET towers, and because traffic generated by construction of these facilities would be relatively minor, GHG impacts as a result of construction emissions would be **less than significant**.

Operations and Maintenance

Maintenance vehicles traveling to future small-scale wind energy systems and temporary MET towers would generate GHG emissions. The locations and actions of future projects are unknown at this time; therefore, actual GHG emissions cannot be quantified. However, since future maintenance activities for small-scale wind energy systems and temporary MET towers would be infrequent and would occur for short periods, emissions of GHGs from maintenance activities would be minimal. Maintenance activities for small-scale wind energy systems and temporary MET towers usually occur every 1 to 3 years, or as needs arise, and may or may not require vehicle trips. Often, annual maintenance may consist of the property owner visually inspecting facilities with a pair of binoculars and also checking that bearings are lubricated. If additional maintenance is required, it is anticipated that one vehicle would access the site and require minimal equipment. Due to the small number of vehicles and equipment required, if any, for maintenance at future project sites, future small-scale wind energy systems and temporary MET towers implemented under the proposed project are not expected to result in a significant generation of GHGs. Additionally, the County's CUP discretionary review process would require all future small-scale wind energy systems and temporary MET towers to be evaluated under CEQA at a project-specific level at the time permits are processed, and to implement measures to minimize impacts related to GHG emissions, as necessary. GHG impacts as a result of operations and maintenance activities would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities and Structure-Mounted Wind Energy Facilities

Vehicular traffic related to construction and operations and maintenance is a source of GHG emissions that could result from utility-scale ground-mounted renewable energy facilities and structure-mounted wind energy facilities. GHG emissions would result from construction activities and equipment, construction worker commutes, and traffic from operations and maintenance of these systems. The exact location and number of future utility-scale ground-mounted renewable energy facilities and structure-mounted wind energy facilities that could result under the proposed project are currently unknown. Construction of these facilities may involve ground disturbance and grading, trenching, construction, paving, and architectural coating. Construction equipment for these phases could include graders, excavators, tractors/loaders/backhoes, rubber-tired dozers, forklifts, cranes, welders, bore/drill rigs, cement and mortar mixers, paving equipment, and air compressors. Utility-scale structure-mounted wind energy facilities would have effects similar to those of utility-scale structure-mounted solar energy facilities. Ground disturbance, if any, is anticipated to be minimal, and vehicular construction traffic would be limited to the delivery of component parts and trips associated with equipment installers.

Utility-scale ground-mounted renewable energy facilities may have long construction periods, on the order of a year. To determine whether a future utility-scale ground-mounted project would have the potential to impact GHG emissions, two sample projects were analyzed (one wind energy facility and one solar energy facility). Vehicle traffic and construction equipment were closely considered, as these are the main sources of GHG emissions for such projects.

The first sample project would construct and operate 128 large ground-mounted wind turbines, each with a 1.5 to 3.0 MW generating capacity range, for a total capacity of approximately 200 MW. This sample project assumes construction would occur in an 18- to 24-month period. A typical day during the peak of the construction period would generate approximately 200 total truck trips, which would include the transportation of turbine components, movement of heavy equipment, and transport of material and concrete, as well as trips for water delivery and pump and subcontractor trucks. A total of up to 325 construction workers (125 on site and 200 delivery drivers) are expected at the project site on a typical day during the peak of the construction period. This sample project's peak a.m. and p.m. totals are estimated to add 165 average daily traffic (ADT) to associated road segments.

The second sample project would consist of construction and operation of a 20 MW ground-mounted solar facility. Construction of this sample project is assumed to occur over a 6-month period. Although this sample project would produce fewer megawatts than the sample wind energy project, trips would be higher due to the need for more water to be trucked in for concrete foundations and dust suppression during ground-disturbing activities, and for clearing and other

site-preparation activities. This project would require significantly more coverage and ground disturbance than a wind turbine project. The number of workers expected on the site during construction would vary over the construction period, and would average up to approximately 120 workers each day, with a maximum of 140 trips per day during the most intense phase of construction. Deliveries of equipment and supplies to the site would also vary over the construction period, but would average approximately 5 to 7 daily trips. Maximum water deliveries would be approximately 55 daily round trips during the mass grading phase. During the mass grading phase, approximately 221 ADT would be generated. The maximum number of workers would occur during rack and panel installations, when water deliveries would be considerably reduced, requiring approximately 10 water truck deliveries a day. Equipment deliveries would be ongoing throughout this phase. Trips generated during this phase would be approximately 298 ADT. This sample project assumes all water needs would be delivered from off site; similar or larger solar projects may have significantly less ADT if on-site wells are used for water needs.

These sample projects would not exceed the SCAQMD or AVAQMD screening thresholds during the construction phase. GHG emissions generated during operations would be limited to maintenance vehicles traveling to future utility-scale ground-mounted and structure-mounted facilities. This amount of traffic would not result in any significant amount of GHG generation.

The discretionary review process would require future utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities to be evaluated under CEQA and to implement measures to minimize impacts related to GHGs, as necessary. Additionally, the overall net benefit of GHG reduction during the operation of utility-scale renewable energy facilities would outweigh the impacts from temporary construction emissions and minor operational emissions. For example, the American Wind Energy Association estimates that 1 megawatt-hour of wind energy produced reduces CO_2 emissions by roughly 1,200 pounds. The average large turbine installed in 2008 was 1.67 MW. A single 1.67 MW turbine would produce more than 5,000 megawatt-hours of electricity per year, and reduce CO_2 emissions by more than 3,000 tons (AWEA 2010). Therefore, the proposed project would help to decrease GHGs in the long term, and **would not result in significant impacts** on the environment from the generation of GHG emissions.

Criterion B: Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As required under AB 32, on December 6, 2007, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was set at 427 MMT CO_2E. In addition to the 1990 emissions inventory, CARB also adopted regulations requiring mandatory reporting of GHGs for the large facilities that account for 94% of GHG emissions from

industrial and commercial stationary sources in California. Approximately 800 sources fall under the new reporting rules, and include electricity generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and other industrial sources that emit CO_2 in excess of specified thresholds.

On December 11, 2008, CARB approved the *Climate Change Proposed Scoping Plan: A Framework for Change* (Scoping Plan) (CARB 2008) to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program.

To comply with the Scoping Plan, the County prepared a draft CCAP to evaluate, track, and reduce GHG emissions in the unincorporated areas of the County. The County 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, which is consistent with the statewide reductions under AB 32 (County of Los Angeles 2014b, p. 3-1).

The State of California, SCAQMD, and AVAQMD have not adopted emissions-based thresholds for GHG emissions under CEQA. The Governor's Office of Planning and Research's Technical Advisory, titled *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*, states that "public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2008, p. 4). Furthermore, the advisory document indicates in the third bullet item on page 6 that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice." Therefore, CEQA gives a lead agency the discretion to determine the significance of environmental impacts identified in its CEQA documents.

As described in Section 4.7.2, public agencies and private developers will be able to use the CCAP, once it is adopted, to comply with project-level review requirements pursuant to CEQA. The CEQA Guidelines specify that project evaluation of GHG emissions can tier off a programmatic analysis of GHG emissions, provided that the programmatic analysis (or climate action plan) complies with the CEQA Guidelines (Cal. Code Regs., Title 14, § 15183.5), which requires climate action plans to include specific components, such as quantified GHG emissions

and measures to achieve the specified emissions level. Once the CCAP is adopted, project-specific environmental documents that incorporate applicable CCAP actions can tier off the EIR certified for the County's general plan and adopted CCAP to meet project-level CEQA evaluation requirements for GHG emissions. Tiering from the General Plan EIR potentially eliminates the need to prepare a quantitative assessment of project-level GHG emissions. Rather, project-specific environmental documents that rely on the CCAP can qualitatively evaluate GHG impacts by identifying all applicable CCAP actions and describing how those actions have been incorporated into project design and/or identified as mitigation. This type of tiered analysis can reduce project costs and streamline the County permit process. Projects that demonstrate consistency with applicable CCAP actions can be determined to have a less than significant cumulative impact on GHG emissions and climate change, notwithstanding substantial evidence that warrants a more detailed review of project-level GHG emissions (County of Los Angeles 2014b, pp. 1-1, 1-2).

Although the CCAP has not yet been adopted, this analysis demonstrates that the proposed project would be consistent with the following applicable CCAP actions, once the CCAP is adopted:

Green Building and Energy

- **BE-3 (Solar Installations):** Promote and incentivize solar installations for new and existing homes, commercial buildings, carports and parking areas, water heaters, and warehouses.
- **BE-4 (Alternative Renewable Energy Programs):** Implement pilot projects for currently feasible wind, geothermal, and other forms of alternative renewable energy.

Land Use and Transportation

- **LUT-9 (Idling Reduction Goal):** Encourage idling limits of 3 minutes for heavy-duty construction equipment, as feasible within manufacturer's specifications.
- **LUT-12 (Electrify Construction and Landscaping Equipment):** Utilize electric equipment wherever feasible for construction projects. Reduce the use of gas-powered landscaping equipment.

Water Conservation and Wastewater

- **WAW-2 (Recycled Water Use, Water Supply Improvement Programs, and Storm Water Runoff):** Promote the use of wastewater and gray water to be used for agricultural, industrial, and irrigation purposes. Manage stormwater, reduce potential treatment, and protect local groundwater supplies.

Waste Reduction, Reuse, and Recycling

- **SW-1 (Waste Diversion Goal):** For the County's unincorporated areas, adopt a waste diversion goal to comply with all state mandates associated with diverting from landfill disposal at least 75% of the waste by 2020.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

The following is a discussion on how requirements for small-scale solar energy systems and utility-scale structure-mounted solar energy facilities under the proposed project are consistent with the County's CCAP. However, this analysis does not provide significance determinations because the County's CCAP is not currently an adopted plan. There are no other applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs in the County's jurisdiction.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Green Building and Energy

As discussed in Chapter 3, Project Description, the proposed project consists of amendments to the County's Zoning Code that would provide a set of procedures and standards for review and permitting of renewable energy systems. Generally, the proposed project is intended to accomplish the following: (1) amend Title 22 Planning and Zoning, Chapter 22.08, to add definitions related to renewable energy systems and facilities (i.e., decommissioning, ~~guy wires,~~ small-scale solar energy systems, small-scale wind energy systems, utility-scale ground-mounted renewable energy facilities, utility-scale structure-mounted renewable energy facilities, and

temporary MET towers); (2) amend Title 22 Planning and Zoning to establish the permitting process for each type of renewable energy system in each zone; and (3) revise Part 15 of the Zoning Code to create a "Renewable Energy" section that would provide regulations for (a) small-scale ~~wind and~~ solar energy systems, (b) provide regulations for utility-scale wind and solar energy facilities (i.e., ground-mounted and structure-mounted utility-scale facilities), and (c) amend existing ~~provide~~ regulations for small-scale wind energy systems and temporary MET towers to include additional environmental protection measures.

The proposed project consists of amendments to the Zoning Code to streamline approval of certain renewable energy sources that would encourage development and expansion of renewable energy sources throughout the County's jurisdiction. The proposed project could expand the use of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities. Through the proposed project, conservation of current non-renewable energy sources would be promoted. New development would be able to use the proposed Zoning Code amendments to facilitate development of renewable energy systems and facilities in a simpler and more effective manner when compared to the current process. The proposed project would, therefore, promote energy conservation. Specifically, through expansion of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities, the proposed project would potentially allow individual properties within the County to be less dependent on grid-sourced, utility-based energy, which in turn would potentially result in lower peak demand and encourage distributed systems. Therefore, the proposed project would be consistent with Green Building and Energy Strategies BE-3 and BE-4.

Land Use and Transportation

Vehicular traffic related to construction and the operation of construction equipment is a source of GHG emissions that could result from renewable energy systems and facilities. As discussed in Criterion A, traffic associated with small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be relatively minor. Additionally, future maintenance activities for these small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be infrequent and would occur for short periods; therefore, emissions of GHGs from maintenance activities would be minimal, and the proposed project would not conflict with land use and transportation strategies in the CCAP.

Water Conservation and Wastewater

Structure-mounted solar energy systems and facilities would not require substantial ground disturbance or grading and clearing, if any. These systems would be affixed to a structure other than the system's mechanical support structure, such as a building or carport. However, ground-disturbing activities related to utility-scale structure-mounted solar energy facilities may result

from construction of ancillary uses, such as mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Depending on the area of ground disturbance, these types of facilities may require some water for dust control during construction. Small-scale ground-mounted solar energy systems would be limited, through development standards, to a maximum coverage of 25% of the lot or parcel of land, or 2.5 acres, whichever is less. Typically, these systems would only be used to generate energy for on-site demand, although there is the potential that excess energy could be used off site. Therefore, these systems would be sized proportionate to the residence or other use on site.

Water would also be required during operation to wash the systems or facilities once or twice a year. Water would be obtained from on-site wells or from a water provider or district and/or delivered to the site by truck. If water is required from a water district, approval would be required and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. The amount of water required for dust control and annual washing during operation is not expected to be substantial. Therefore, implementation of small-scale solar systems and utility-scale structure-mounted solar facilities pursuant to the proposed project would not directly conflict with strategy policy WAW-2, which calls for the protection of groundwater resources.

Waste Reduction, Reuse, and Recycling

As described in Section 4.17, Utilities and Service Systems, little waste would be associated with small-scale solar energy systems and utility-scale structure-mounted solar energy facilities. The majority of waste would be associated with construction and with disposal during decommissioning, as operation would produce zero to minimal solid waste. Additionally, small-scale solar energy systems would be subject to AB 341, which requires local agencies to include strategies to enable the diversion of 75% of all solid waste by 2020. Because minimal amounts of solid waste would be produced, and because implementation, operation, and decommissioning of the systems would comply with regulations, the proposed project would not directly conflict with waste reduction, reuse, and recycling policies.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA at a project-specific level at the time permits are processed. The following is a discussion on how requirements for small-scale and utility-scale wind energy systems and facilities, utility-scale ground-mounted solar energy facilities, and temporary MET towers under the proposed project are consistent with the County's CCAP. However, this analysis does not provide

significance determinations because the County's CCAP is not currently an adopted plan. There are no other applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs in the County's jurisdiction.

Small-Scale Wind Energy Systems and Temporary MET Towers

Green Building and Energy

As discussed in Chapter 3, Project Description, the proposed project consists of amendments to the County's Zoning Code that would provide a set of procedures and standards for review and permitting of renewable energy systems. The existing regulations for small-scale wind energy systems and temporary MET towers contained within Part 15 of the Zoning Code would remain in place; however, additional regulations would be added to further protect avian and bat species from the potential effects of such projects. Such projects would also be subject to discretionary review. The proposed amendments to the Zoning Code would therefore further protect sensitive resources from small-scale wind energy projects and temporary MET towers. However, the existing provisions for development of wind energy would remain in place, thereby continuing to provide a mechanism by which wind energy may be harnessed in the County.

~~The proposed project would facilitate the development and use of renewable energy systems in built environments, and regulate the development of renewable energy sources in undisturbed environments. The proposed project would regulate small scale wind energy systems through development standards and permitting of a discretionary process. Provisions for temporary MET towers would potentially facilitate the expansion of wind energy throughout the County by allowing testing of the feasibility and optimal locations for wind turbines on properties for on-site or off-site energy use. Therefore, the proposed project would be consistent with Green Building and Energy Strategy BE-4 by providing a mechanism by which wind energy may be harnessed in the County, and the proposed project would potentially diversify the County's electricity portfolio.~~

Land Use and Transportation

As indicated in Criterion A, vehicular traffic related to construction and operations and maintenance activities is a source of GHG emissions that could result from renewable energy systems and facilities. Small-scale wind energy systems and temporary MET towers would have brief construction periods associated with their installation, and traffic generated by the construction of these facilities would be relatively minor. Additionally, future maintenance activities for these small-scale systems would be infrequent; would occur for short periods of time; and, in some instances, may be performed by the property owner, eliminating the need for any associated vehicle trips. Therefore, emissions of GHGs

from maintenance activities would be minimal, and the proposed project would not conflict with land use and transportation strategies.

Water Conservation and Wastewater

As described in Section 4.17, Utilities and Service Systems, future small-scale wind energy systems and temporary MET towers would not result in substantial water usage during construction or operation. Water would be obtained from on-site wells or from a water provider or district and/or delivered to the site by truck. If water is required from a water district, approval would be required and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. Additionally, these future systems would be subject to the Minor CUP discretionary review permit and further CEQA review. Therefore, small-scale wind energy systems and temporary MET towers would not directly conflict with strategy policy WAW-2, which calls for the protection of groundwater resources.

Waste Reduction, Reuse, and Recycling

As described in Section 4.17, Utilities and Service Systems, little waste would be associated with small-scale wind energy systems and temporary MET towers. The majority of waste would be associated with construction of these systems. System operation would produce zero to minimal solid waste. Additionally, small-scale solar energy systems would be subject to AB 341, which requires local agencies to include strategies to enable the diversion of 75% of all solid waste by 2020. Minimal amounts of solid waste would be produced, and implementation, operation, and decommissioning of the systems would comply with regulations.

Utility-Scale Ground-Mounted Renewable Energy Facilities and Structure-Mounted Wind Energy Facilities

Green Building and Energy

As discussed in Chapter 3, Project Description, the proposed project consists of amendments to the County's Zoning Code that would provide a set of procedures and standards for review and permitting of renewable energy facilities.

The proposed project would clarify the permitting and approval process for solar and wind energy sources, which would potentially encourage the development and expansion of renewable energy sources throughout the County's jurisdiction. The proposed project would regulate utility-scale ground-mounted solar and wind energy facilities and utility-scale structure-mounted wind energy facilities through development standards, ~~and~~ permitting, and ~~of~~ a discretionary review process. Therefore, the proposed project would be consistent with Green Building and Energy Strategies BE-3

and BE-4 through providing a mechanism by which wind and solar energy may be harnessed in the County, and would potentially diversify the County's electricity portfolio.

Land Use and Transportation

Construction, operation, and maintenance of the utility-scale ground-mounted renewable energy facilities and structure-mounted wind energy facilities could generate a significant amount of traffic on project area roadways. Construction of these facilities may involve ground disturbance and grading, trenching, construction, paving, and architectural coating phases. Construction equipment for these phases could include graders, excavators, tractors/loaders/backhoes, rubber tired dozers, forklifts, cranes, welders, bore/drill rigs, cement and mortar mixers, paving equipment, and air compressors. Utility-scale structure-mounted wind facilities would have effects similar to those of utility-scale ground-mounted facilities in general. However, ground disturbance, if any, is anticipated to be minimal. As indicated in Criterion A, impacts relative to GHG emissions are expected to be less than significant. Therefore, the proposed project would not conflict with land use and transportation strategies.

Water Conservation and Wastewater

As described in Section 4.17, Utilities and Service Systems, during construction, water would typically be used to suppress fugitive dust during grubbing, clearing, grading, trenching, and soil compaction, and to apply soil binding agents to help with soil stabilization during construction. Water could also be used to mix concrete, and potable water would be required for construction workers' drinking and restroom use. Water usage during construction for utility-scale ground-mounted renewable energy projects varies greatly, depending on the duration of construction activities and the extent of ground disturbance, grading, and clearing.

Operationally, potable water would likely be required for any on-site operations and maintenance buildings, and for cleaning the solar or wind equipment to maintain optimal system performance. The amount of water required by a utility-scale facility varies based on the size of the facility, the technology implemented, the amount of landscape maintenance involved, and the number of on-site workers required. The National Renewable Energy Laboratory has studied water consumed by utility-scale energy facilities per megawatt-hour. Utility-scale photovoltaic facilities typically use a maximum of 33 gallons per megawatt-hour (NREL 2011). Wind turbines generally use a maximum of 1 gallon per megawatt-hour (NREL 2011). Water would be obtained from on-site wells or from a water provider or district and/or delivered to the site by truck. Use of recycled water would be required when available and when deemed appropriate by the staff biologist.

The CUP discretionary review process would require all future utility-scale ground-mounted projects to be evaluated under CEQA and to implement measures to minimize impacts to the water supply to the greatest extent possible. Therefore, the proposed project would not directly conflict with Water Conservation and Wastewater Strategy WAW 2.

Waste Reduction, Reuse, and Recycling

As described in Section 4.17, Utilities and Service Systems, waste would be produced during the construction, operation, and decommissioning phases of discretionary utility-scale ground-mounted renewable energy facilities and structure-mounted wind energy facilities. Operational waste would be minimal and would be primarily associated with on-site operations and maintenance buildings and periodic maintenance activities. During construction, future projects would be required to divert at least 65% of construction and demolition waste, in accordance with the County Building Code. Additionally, future projects would need to develop, implement, and demonstrate compliance with a recycling and reuse plan, in accordance with the County Zoning Code. Decommissioning would also involve diversion of demolition waste in accordance with the Zoning Code. Compliance with local codes would ensure that future projects would meet state diversion mandates. Although impacts are anticipated to be less than significant, each project would be further evaluated under CEQA as part of the County's CUP discretionary review process and may be required to implement additional measures as necessary. As such, the proposed project would not conflict with waste reduction, reuse, and recycling policies.

4.7.5 Level of Significance Before Mitigation

No significant impacts related to GHG emissions would occur as a result of the proposed project.

4.7.6 Mitigation Measures

No significant impacts related to GHG emissions would occur; therefore, no mitigation measures are required.

4.7.7 Level of Significance After Mitigation

The proposed project would not result in significant impacts relative to GHG emissions, and no mitigation measures are required. Impacts associated with the proposed project would remain **less than significant.**

Table 4.7-1
Greenhouse Gas Sources in California

Source Category	Annual GHG Emissions (MMT CO_2E)	Percent of Total[a]
Agriculture	32.24	7.2%
Commercial uses	14.87	3.3%
Electricity generation	86.57b	19.3%
Industrial uses	93.24	20.8%
Recycling and waste	7.00	1.6%
Residential uses	29.85	6.7%
Transportation	168.42	37.6%
High GWP substances	15.17	3.4%
Total[c]	**448.11**	**100%**

Source: CARB 2013.
Notes: MMT = million metric tons; CO_2E = carbon dioxide equivalent.
[a] Percentage of total has been rounded.
[b] Includes emissions associated with imported electricity, which account for 46.86 MMT CO_2E annually.
[c] Totals may not sum due to rounding.

Table 4.7-2
2010 Greenhouse Gas Inventory for Unincorporated Los Angeles County by Sector

Sector	2010 Emissions (MT CO_2E)	Percent of Inventory
Building energy	3,906,213	49%
Transportation	3,383,711	42%
Waste generation	535,148	7%
Water conveyance and wastewater generation	133,589	2%
Agriculture	30,290	<1%
Stationary sources	1,283	<1%
Total[a]	**7,990,235**	**100%**

Source: County of Los Angeles 2013.
Notes: MT = metric tons; CO_2E = carbon dioxide equivalent.
[a] Totals may not sum due to rounding.

Table 4.7-3
2020 Greenhouse Gas Forecast for Unincorporated Los Angeles County by Sector

Sector	2020 Emissions (MT CO_2E)	Change from 2010 (MT CO_2E)
Building energy	5,181,848	1,275,635
Transportation	3,684,329	300,618
Waste generation	500,952	−34,196
Water conveyance and wastewater generation	137,954	4,364
Agriculture	30,141	−149

Table 4.7-3
2020 Greenhouse Gas Forecast for Unincorporated Los Angeles County by Sector

Sector	2020 Emissions (MT CO_2E)	Change from 2010 (MT CO_2E)
Stationary sources	1,390	107
Total [a]	**9,536,614**	**1,546,379**

Source: County of Los Angeles 2013.
Notes: MT = metric tons; CO_2E = carbon dioxide equivalent.
[a] Totals may not sum due to rounding.

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4.8 HAZARDS AND HAZARDOUS MATERIALS

This section discusses potential impacts that could result from implementation of the proposed project related to hazardous materials, airport hazards, emergency response plans, and wildland fires. This section also provides a detailed description of existing hazardous conditions and regulatory framework. Where potentially significant impacts were identified, mitigation measures have been provided to reduce impacts to below a level of significance.

4.8.1 Existing Conditions

This section is divided into discussions of potential hazards related to hazardous materials, airports, emergency response and evacuation plans, and wildland fire. This section also presents information on potential effects from exposure to several potential hazards associated with renewable energy facilities, including electric and magnetic fields (EMFs), shadow flicker, and materials used in photovoltaic (PV) panels.

Hazardous Materials

Hazardous materials are commonly encountered during construction activities. Hazardous materials typically require special handling, reuse, and disposal because of their potential to harm human health and the environment. The California Health and Safety Code defines a hazardous material as:

> A material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment (Cal. Health and Safety Code, § 25501).

Sites with Known Hazardous Materials Issues

The California Environmental Protection Agency (CalEPA) is required by California Government Code Section 65962.5 to compile, maintain, and update lists of hazardous materials release sites. The California Environmental Quality Act (CEQA) Guidelines (Cal. Code Regs., Title 14, § 15000 et seq.) require lead agencies to consult the lists prepared in accordance with California Government Code 65962.5 to determine whether a project site is on a listed hazardous materials release site. The required lists are as follows:

- ***EPA National Priorities List****:* Lists sites identified by the U.S. Environmental Protection Agency's (EPA's) Comprehensive Environmental Response, Compensation, and Liability

Act (CERCLA) (also called Superfund) program, which was created to fund the cleanup of contaminated sites.

- ***EPA CERCLIS and Archived Sites:*** The EPA CERCLIS is the "Comprehensive Environmental Response, Compensation, and Liability Information System." This system contains a list of 15,000 hazardous sites around the country. Archived sites are those that have been removed from the list due to a "No Further Remedial Action Planned" status.
- ***EPA RCRIS (RCRA Info):*** The Resource Conservation and Recovery Act (RCRA) Information System (RCRIS) contains information about hazardous waste handlers around the country. All generators, handlers, transporters, and disposers of hazardous waste are required to post information in this system.
- ***DTSC Cortese List:*** The California Department of Toxic Substances Control (DTSC) is a department of CalEPA. Among other responsibilities, they maintain the Cortese List, which is also known as the Hazardous Waste and Substances Sites List. This is used by state and local agencies to comply with the CEQA Guidelines by providing information about the location of hazardous materials release sites. This list includes the Site Mitigation and Brownfields Reuse Program Database (known as CalSites).
- ***DTSC HazNet:*** The DTSC uses this database to monitor shipments of hazardous waste.
- ***State Water Resources Control Board LUSTIS:*** The State Water Resources Control Board maintains the Leaking Underground Storage Tank Information System (LUSTIS). This system consists of an inventory of underground storage tanks (USTs) and leaking USTs (LUSTs) and tracks unauthorized releases.

The above lists of hazardous materials release sites and other relevant sites are now contained on internet databases maintained by government boards or departments. These databases include EnviroStor (maintained by DTSC), GeoTracker (maintained by the State Water Resources Control Board), and the RCRA Info database (maintained by the EPA). As part of the ~~2014~~ 2015 General Plan Update Draft Environmental Impact Report (EIR), these three databases were searched on March 7, 2014, to identify sites in the project area on which hazardous materials may have been released. These two databases and the results they yielded are further characterized in the following paragraphs.

EnviroStor

This database includes sites that have known contamination or sites that need further investigation. This database includes the National Priorities List, state response sites, voluntary cleanup sites, school investigation and cleanup sites, corrective action sites, tiered California permit sites, and sites that are being investigation for suspected contamination. The project area includes numerous sites listed on EnviroStor, including 117 school investigation and school

cleanup sites; 167 evaluation, border zone/hazardous waste evaluation, or military evaluation sites; 165 federal Superfund, corrective action, state response, or voluntary cleanup sites; 159 historical or tiered permit sites; 18 hazardous waste facilities; and 11 historical (non-operating) hazardous waste facilities (County of Los Angeles ~~2014a~~2015a, Table 5.8-1).

GeoTracker

This database includes hazardous materials sites that have the potential to affect groundwater quality. This database includes LUSTs, cleanup program sites, land disposal sites, and military sites. The project area includes numerous sites listed on GeoTracker, including 2,268 LUST sites; 450 cleanup program sites; 84 land disposal sites; 6 military sites; and 1,507 registered UST sites (County of Los Angeles ~~2014a~~2015a, Table 5.8-2).

Hazardous Waste Generators

The RCRA Info database, maintained by the EPA, contains a list and information about hazardous waste generators. Hazardous waste generators are classified as "small quantity generators" or "large quantity generators." Small quantity generators generate 100 to 999 kilograms of hazardous waste per month, while large quantity generators generate 1,000 kilograms or more of hazardous waste per month.

The project area has approximately 485 large quantity generators and 3,876 small quantity generators (County of Los Angeles 2015a~~2014a~~, Table 5.8-3).

Sites with Potential Hazardous Materials Issues

A variety of historical land uses and conditions that occur within unincorporated areas could potentially result in site contamination, representing potential hazards to humans and the environment when new land uses are proposed on those lands. Examples of historical land uses that have the potential to result in current site contamination include burn sites, landfills, formerly used defense sites, agriculture, and petroleum storage.

Landfills

Active, abandoned, and closed landfills present potential issues related to the exposure of humans to hazards, such as landfill gas migration, when a project is proposed on or near a landfill site.

Active Landfills

There are seven landfills sited within the unincorporated areas of the County of Los Angeles (County). The Calabasas Landfill in the Santa Monica Mountains Planning Area is owned by

the County and operated by County Sanitation District No. 2. The Chiquita Canyon Landfill in the Santa Clarita Valley Planning Area is owned and operated by a private waste service company, Waste Connections Inc. The Sunshine Canyon Landfill and Recycling Center is partially located within an unincorporated area in the San Fernando Valley Planning Area. The Puente Hills Landfill in the East San Gabriel Valley Planning Area is owned by County Sanitation District No. 18 and was operated by County Sanitation District No. 2 (this landfill recently closed). The Pebbly Beach Landfill, located on Santa Catalina Island in the Coastal Islands Planning Area, is owned by the City of Avalon and operated by Seagull Sanitation Systems (Republic Services Inc.). The San Clemente Landfill is located on San Clemente Island in the Coastal Islands Planning Area and is owned and operated by the U.S. Department of the Navy. The Lancaster Landfill and Recycling Center is located in the unincorporated area of Antelope Valley. Additionally, there are six additional landfills located in incorporated cities (not including those listed above, which are partially within unincorporated areas).

Transfer and Processing Stations

Solid waste not placed directly in the landfills is deposited temporarily in Large Volume Transfer/Processing and Direct Transfer Facilities. The County contains approximately 60 of these facilities, 7 of which are located within unincorporated areas (County of Los Angeles 2013, Appendix E-5). The transfer stations and bin sites play a vital role in accommodating throughput to landfills and serving as collection and separation points of solid waste and recyclables.

Closed Landfills

There are over 300 closed landfills within the County, the majority of which are located in incorporated cities (although closed landfill sites no longer accept solid waste, some require a great deal of maintenance required to keep them environmentally safe). Within the unincorporated portion of the County, there are two closed landfills, the Puente Hills Landfill (2800 South Workman Mill Road) and the Azusa Refuse Disposal Land Reclamation (325 North Azusa Avenue).

At inactive landfills, the County and others monitor landfill gas and maintain active landfill gas control systems, maintain the soil cover system, monitor groundwater quality and surface water, and maintain stormwater best management practices (BMPs) to ensure that closed landfills do not pollute surface water or groundwater or pose an explosion or health hazard.

Petroleum Storage

Petroleum hydrocarbons are the most commonly used group of chemicals. Petroleum hydrocarbons encompass a wide range of compounds, including but not limited to fuels, oils, paints, dry-cleaning solvents, and non-chlorinated solvents. These compounds are used in all

facets of modern life and can cause soil and groundwater contamination if not properly handled. USTs and aboveground storage tanks (ASTs) that store petroleum are common sources of contamination into soils and groundwater in the County. Property owners with USTs and ASTs on their land often include marketers who sell gasoline to the public, such as service stations and convenience stores, or non-marketers who use tanks solely for their own needs, such as fleet service operators or agricultural users. LUSTs can result in vapor intrusion from volatile organic compounds (VOCs) and benzene into homes when chemicals seep into the soil and groundwater and travel through soil as vapor. These vapors may then move up through the soil and into nearby buildings through cracks in the foundation, causing contamination of indoor air. While vapor intrusion is uncommon, it should be considered when there is a known source of soil or groundwater contamination nearby.

Hazardous Waste Transportation

In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by the DTSC. The DTSC maintains a list of active registered hazardous waste transporters throughout the state. There are approximately 4,361 registered hazardous waste transporters within the County.

The process of transporting hazardous waste often involves transfer facilities. A transfer facility is any waste-transportation-related facility that is not an on-site facility. These facilities include, but are not limited to, loading docks, parking areas, storage areas, and other similar areas. Although not all transfer facilities hold hazardous waste, any operator of a facility that accepts hazardous waste for storage, repackaging, or bulking must obtain formal authorization for those activities through the hazardous waste permit process. Hazardous waste transporters are exempt from storage facility permit requirements provided that they observe the limits on storage time and handling.

Hazardous waste transfer facilities fall into three main categories:

- An exempt transfer facility operated by a registered transporter
- A transfer facility operating under the authority of a RCRA permit
- A transfer facility operating under the authority of a Standardized Permit

A transfer facility may be either permitted or exempt. The permit authorizes the activities and establishes the conditions that must be followed by the operator of a permitted transfer facility. Exempt facilities are owned and operated by the transporter of the waste.

Hazardous Materials Release Threats

When unexpectedly released into the environment, hazardous materials may create a significant hazard to the public or environment. Hazardous materials are commonly stored and used by a variety of businesses within the County and could be released into the environment through improper handling or accident conditions. The business plans and response systems discussed in the following sections are in place to help prevent hazardous material release threats.

Hazardous Materials Business Plans

Los Angeles County Fire Department (LACoFD) Health Hazardous Materials Division (HHMD) serves as the Certified Unified Program Agency (CUPA) for the unincorporated areas of the County and most incorporated cities of the County. A CUPA is an agency certified by the DTSC to conduct the Unified Program, a collection of state-mandated programs that were formulated to protect people and the environment from the effects of hazardous materials handling, storage, and release. As part of the Unified Program, businesses that handle, store, or dispose of a hazardous substance at a given threshold quantity must prepare, submit, and implement hazardous business plans for emergency response to releases or threatened releases of hazardous materials. These business plans must include the facility's inventory of hazardous materials handled, an emergency response plan for actual or threatened releases, an employee training program, and a facility map displaying the locations of reportable hazardous materials. The chemical inventories are updated and submitted annually, and the overall business plans are reviewed and submitted every 3 years or when significant changes in business operation occur (County of Los Angeles 2009).

Risk Management Plans

One of the programs administered by the HHMD and its participating agencies is the California Accidental Release Prevention (CalARP) program (County of Los Angeles 2009). The CalARP program requires the owner or operator of a stationary source with more than a threshold quantity of a regulated substance to prepare a risk management plan (RMP). The CalARP program combines federal and state program requirements for the prevention of accidental releases of listed substances into the atmosphere. Under the CalARP program, an RMP must include a hazard assessment program, an accidental release prevention program, and an emergency response plan. The RMP must be revised every 5 years or as necessary.

Airport Hazards

Main areas of concern related to airport hazards are overflight safety, airspace protection, flight patterns, and land-use compatibility. Hazards associated with airports can have serious human safety and quality of life impacts. In the County, the Airport Land Use Commission (ALUC)

coordinates airport land use compatibility and prepares airport land use plans for public-use airports. There are 15 airports within the County ALUC's jurisdiction. Five are County owned, nine are owned by other public agencies, and one is privately owned. The majority of the airports in the County are located within incorporated cities; however, two airports are located within unincorporated areas: the Agua Dulce Airport in the Santa Clarita Valley Planning Area and the Catalina Airport in the Coastal Islands Planning Area. The County also has 11 private-use airstrips, 1 private-use seaplane base, and 138 heliports registered with the Federal Aviation Administration (FAA) in the County (County of Los Angeles ~~2014a~~2015a, Section 5.8).

Public Airport Hazard Prevention

Airport land use compatibility plans (ALUCPs) are plans that guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate near airports. They are intended to protect the safety of people, property, and aircraft on the ground and in the air near the airport. They also protect airports from encroachment by new incompatible land uses that could restrict their operations. ALUCPs are based on a defined area around an airport known as the Airport Influence Area, which is established by factors including airport size, operations, and configuration, as well as safety, airspace protection, noise, and overflight impacts on the land surrounding an airport. Although most of the major airports in the County are situated in incorporated areas, the Airport Influence Areas for three of these airports extend into unincorporated areas: the Los Angeles International Airport, the Palmdale Regional Airport, and the General William J. Fox Airfield in Lancaster (County of Los Angeles 2012). Figure 4.8-1, County of Los Angeles Airports and Airport Influence Areas, displays the airport influence areas and airports in the County. It is important to note that ALUCPs do not affect existing land uses. Structure replacement and infill development are generally permitted under ALUCPs.

The ALUCPs are prepared by the County ALUC. The current ALUCP is the *Los Angeles County Airport Land Use Commission Comprehensive Land Use Plan*. The plan was adopted in 1991 and revised in 2004 (County of Los Angeles 2004).

The General William J. Fox ALUCP sets forth land use compatibility policies applicable to future development in the vicinity of the airport. The policies are designed to ensure that future land uses in the surrounding area will be compatible with potential long-range aircraft activity at the airport. As adopted by the County ALUC, these policies provide the basis by which the ALUC can carry out its land use development review responsibilities in accordance with the California State Aeronautics Act (Pub. Util. Code, § 21670 et seq.) (ALUC 2004).

Military Airport Hazard Prevention

Guidelines set forth by the U.S. Department of Defense as part of its Air Installation Compatible Use Zone (AICUZ) program addresses land-use compatibility and safety policies for military airport runways. The AICUZ was initiated in the 1970s to recommend land uses that may be compatible with noise levels, accident potential, and flight clearance requirements associated with military airfield operations. The Department of Defense prepared individual AICUZ plans for all major military airports. The objective of this program is to encourage compatible uses of public and private lands in the vicinity of military airfields through the local communities' comprehensive planning process. Edwards Air Force Base, which is partially located in the northern portions of the Antelope Valley Planning Area and partially located in Kern County, is subject to these regulations, as is the Air Force Plant 42, located at the Palmdale Regional Airport.

Private Airport Hazard Prevention

Safety-related hazards at private and special-use airports affect less land because of lower activity levels compared to public-use airports. In addition, the public has very limited access to or ability to use these facilities due to their ownership by private citizens or public agencies (such as the Bureau of Land Management or the U.S. Forest Service (USFS)). Land use controls differ substantially between public airports and private airports. First, there are no Airport Influence Areas identified around these airports and land use restrictions are much less defined than with public airports. Second, the California Department of Transportation (Caltrans) Division of Aeronautics controls private and special-use airports through a permitting process and is also responsible for regulating operational activities at these airports.

Emergency Response and Evacuation Plans

Emergency response plans include elements to maintain continuity of government, emergency functions of governmental agencies, mobilization and application of resources, mutual aid, and public information. Emergency response plans are maintained at the federal, state, and local level for all types of disasters, including human-made and natural. It is the responsibility of government to undertake an ongoing comprehensive approach to emergency management in order to avoid or minimize the effects of hazardous events. Local governments have the primary responsibility for preparedness and response activities.

The Safety Element of the ~~2014~~ 2015 Draft General Plan Update addresses the protection of the community from risk associated with natural disasters such as earthquakes, slope instability, soils hazards, and fires. The County Integrated Waste Management Plan addresses hazardous materials management. Hazardous materials are also regulated by the business plans and risk management plans discussed above. The County All-Hazards Mitigation Plan

prepared by the County Chief Executive Office – Office of Emergency Management (CEO OEM) sets strategies for both natural and human-caused hazards in the County. The All-Hazards Mitigation Plan, which has been approved by the Federal Emergency Management Agency (FEMA) and the California Emergency Management Agency (CalEMA), includes a compilation of known and projected hazards in the County and describes historical disasters in the County. The CEO OEM also prepares the Operational Area Emergency Response Plan (OAERP) (County of Los Angeles ~~2014b~~2015b, Chapter 12).

General Plan Safety Element

The Safety Element of the ~~2014~~ 2015 Draft General Plan Update[1] contains goals and policies that will shape development so that risk to humans and property from natural disasters is decreased. The policy framework set forth in the Safety Element discourages new development from occurring in areas that have been designated as areas of high fire, flood, or seismic hazard.

All-Hazard Mitigation Plan

The Safety Element works in conjunction with the All-Hazards Mitigation Plan, which is prepared by the CEO OEM, which sets strategies for natural and human-caused hazards in the County. The All-Hazards Mitigation Plan was adopted by the County Board of Supervisors in October 2004 and profiles a wide variety of human-induced and natural hazards, including earthquakes, fires, utility loss, hazardous materials, dam filature, and landslides. The plan is the first County-wide compilation of future mitigation strategies and programs and addresses all major natural and human-caused disasters that fall within the responsibility of the County departments within the geographic County. The plan addresses the unincorporated areas of the County. Although the plan does not provide specific mitigation planning for each of the 88 cities within the County, many of the strategies and mitigation goals cross political boundaries and also apply to and cover incorporated areas.

The plan contains demographic information about the County and hazard vulnerability analysis, a profile and categorization of over 25 hazards, and strategies and goals for addressing these hazards (County of Los Angeles 2005; ~~2014a~~2015a, Chapter 12).

[1] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

Operational Area Emergency Response Plan

The OAERP establishes the County's emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts among the various emergency departments, agencies, special districts and jurisdictions that comprise the Los Angeles County Operational Area. The purpose of the OAERP is to incorporate and coordinate all the facilities and personnel of County government, along with the jurisdictional resources of the cities and special districts within the County, into an efficient Operational Area organization capable of responding to any emergency using the California Standardized Emergency Management System, mutual aid, and other appropriate response procedures. The OAERP is an extension of the California Emergency Plan. The operation concepts covered in the plan focus on large-scale disasters that have the potential to generate unique situations.

Fire Hazards

The County's undeveloped lands support natural habitats such as grasslands, sage scrub, chaparral, and limited forest areas. In the context of fire ecology, these areas are known as wildlands. Fire ecology research has shown that the natural fire regime for the shrublands and forests in the County was one of frequent small fires and occasional large fires. Modern society has interrupted and fractured the natural fire process by initiating fire suppression policies, introducing invasive plant species that burn readily, and building houses within or adjacent to wildland areas (known as wildland–urban interface areas) such as the foothills of the San Gabriel Mountains. Although fires can occur anywhere in the County, fires that begin in wildland areas pose a serious threat to personal safety and structures due to rapid spread and the extreme heat that these fires often generate. Past wildfires have taken lives, destroyed home and devastated many acres of the County's natural resources.

Potential fire hazards in urbanized areas are also a concern in the County, due to the intensity of development, the concentration of population in the urbanized areas, and the presence of industrial land uses (County of Los Angeles ~~2014a~~2015a, Chapter 12).

Wildland Fire

The County faces major wildland fire threats due to its hilly terrain, dry weather conditions, and the nature of its plant coverage. Different levels of government are responsible for preventing and suppressing wildfire in different parts of the County. The responsible level of government, the area(s) that it is responsible for, the designation given to those areas are listed below:

- ***Federal Government:*** The federal government is financially responsible for wildfire suppression in the Angeles National Forest and on federal lands in the Santa Monica

Mountains National Recreation Area. These areas are called "Federal Responsibility Areas" (FRAs).

- ***State Government:*** The state is financially responsible for wildfire suppression in the Santa Susana Mountains, the foothills of the San Gabriel Mountains, and parts of the Santa Monica Mountains. These areas are called "State Responsibility Areas" (SRAs).
- ***Local Government:*** Cities or the County are financially responsible for wildfire suppression in a variety of areas throughout the County, including the foothills of the Santa Susana Mountains, the foothills of the San Gabriel Mountains, the Verdugo Mountains, parts of the Santa Monica Mountains, the San Rafael Hills, the Puente Hills, and other hills in the central Los Angeles area. These areas are called "Local Responsibility Areas" (LRAs).

Areas at risk for wildfire are designated as Fire Hazard Severity Zones. These designations include Very High, High, and Moderate Fire Hazard Severity Zones. The County contains areas with each of these designations, with Very High Fire Hazard Severity Zones encompassing much more land area than the High and Moderate designations. The entirety of the Angeles National Forest and the Santa Monica Mountains Planning Area are designated Very High Fire Hazard Severity Zones. Figure 4.8-2, Fire Hazard Severity Zone Policy Map, depicts the areas located within each of these designations and also shows the jurisdictions of the FRAs, SRAs, and LRAs.

Although fires are a natural part of the wildland ecosystem, development in wildland areas increases the danger of wildfires to residents, property, and the environment. Increased fire frequency is the primary threat to wildland ecosystems, which are adapted to an average fire return interval of 60 to150 years. More frequent fires cause habitat type conversion and the presence of invasive species. Wildland fire threats are increasing, in part due to climate change. The rise in temperature and prolonged periods of drought increase the frequency and duration of wildfires. Wildfires also have negative impacts on air quality. As exposure to smoke and particulate matter has immediate and long-term public health impacts, populations may suffer from eye irritations, respiratory problems, and complications to existing lung and heart conditions. Wildfires also have major economic impacts. Older communities with aging and substandard infrastructure may face greater risks from wildland fires (County of Los Angeles ~~2014a~~2015a, Chapter 12).

Renewable Energy Facilities

There are a variety of potential hazards associated with renewable energy facilities. Some types of PV solar panels contain potentially hazardous materials. Wind turbines have the potential to cause an effect called "shadow flicker," which sometimes raises health concerns. Both solar and wind systems produce EMFs.

Photovoltaic Technology

Some types of PV technology involve crystalline silicon or thin-film cadmium telluride type panels. There are potential environmental health and safety concerns associated with the use of cadmium-containing PV panels. Elemental cadmium (Cd), which forms CdTe when reacted with tellurium (Te), is a lung carcinogen and can cause detrimental effects on kidney and bone with long-term exposure (Fthenakis and Zweibel 2003).

According to a 2003 report from the National Renewable Energy Laboratory, the only pathways for human exposure to CdTe are via ingesting flakes or dust particles, or inhaling dust and fumes. In PV panels, the CdTe layers are encapsulated between layers of glass and are therefore stable. Unless the PV module is purposely ground into a fine dust, dust particles will not be generated. Preliminary studies have indicated that CdTe releases are unlikely to occur during accidental breakage.

In the case of a fire, CdTe may pose an increased health risk. The melting point of CdTe is 1,041 degrees Celsius (°C) (1,906 degrees Fahrenheit (°F)), and evaporation starts at 1,050°C (1,922°F). The thin layers of CdTe are encapsulated between glass plates, which would be molten at these temperatures, making vapor emissions unlikely.

Shadow Flicker

Shadow flicker 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. These are discussed and analyzed in Section 4.8.8.

Electric and Magnetic Fields

EMFs are distinct phenomena that occur both naturally and as a result of human activity across a broad spectrum. Naturally occurring EMFs are caused by atmospheric conditions and earth's geomagnetic field. The fields caused by human activity result from technological application of

the electromagnetic spectrum for uses such as communications; appliances; and the generation, transmission, and local distribution of electricity. EMFs are vector quantities that have the properties of direction and amplitude (field strength). Wind turbines create EMFs from the power facilities that are a part of the turbine makeup. Solar systems create EMFs from the PV arrays and the associated infrastructure, such as transformers.

Electric Fields

Electric fields from power facilities are created whenever the facilities are energized, with the strength of the field dependent directly on the voltage of the line or facility creating it. Electric field strength is typically described in units of kilovolt per meter (kV/m). Electric field strength attenuates (gets weaker) rapidly as the distance from the source increases. Electric fields are reduced at many receptors because they are effectively shielded by most objects or materials such as trees or houses.

Unlike magnetic fields, which penetrate almost everything and are unaffected by buildings, trees, and other obstacles, electric fields are distorted by any object that is within the electric field, including the human body. Even trying to measure an electric field with electronic instruments is difficult because the devices themselves would alter the levels recorded. Determining an individual's exposure to electric fields requires the understanding of many variables, including the electric field itself, how effectively a person is grounded, and a person's body surface area within the electric field.

Electric fields in the vicinity of power lines or facilities can cause phenomena similar to the static electricity experienced on a dry winter day, or with clothing just removed from a clothes' dryer, and may result in nuisance electric discharges when touching long metal fences, pipelines, or large vehicles.

Magnetic Fields

Magnetic fields from power lines or facilities are created whenever current flows through power line or facility at any voltage. The strength of the field is directly dependent on the current in the line. Magnetic field strength is typically measured in milligauss (mG). Similar to electric field strength, magnetic field strength attenuates rapidly with distance from the source. Unlike electric fields, magnetic fields are not shielded by most objects or materials.

Comparison of Electric and Magnetic Fields

The nature of electric and magnetic fields can be illustrated by considering a household appliance. When the appliance is energized by being plugged into an outlet but not turned on so no current would be flowing through it, an electric field would be generated around the cord and

appliance, but no magnetic field would be present. If the appliance is switched on, the electric field would still be present, and a magnetic field would be created. The electric field strength is directly related to the magnitude of the voltage from the outlet, and the magnetic field strength is directly related to the magnitude of the current flowing in the cord and appliance.

The impacts analysis (Section 4.8.4) does not consider EMFs or shadow flicker in the context of CEQA for determination of environmental impact, because there is no agreement among scientists that EMFs and shadow flicker create a health risk and there are no defined or adopted CEQA standards for defining health risks from EMFs and shadow flicker. As a result, the EMF and shadow flicker information is presented for the benefit of the public and decision makers; see Section 4.8.8.

4.8.2 Relevant Plans, Policies, and Ordinances

Federal

Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984

Federal hazardous waste laws are generally promulgated under RCRA. These laws provide for the "cradle to grave" regulation of hazardous wastes. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed. DTSC is responsible for implementing the RCRA program as well as California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. Under the CUPA program, CalEPA has in turn delegated enforcement authority to the LACoFD for state law regulating hazardous waste producers or generators.

Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act of 1986

Congress enacted CERCLA, also known as Superfund, on December 11, 1980. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. The Superfund Amendments and Reauthorization Act (SARA) amended the CERCLA on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites; required Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations; provided new enforcement authorities and settlement tools; increased state involvement in every phase of the Superfund program; increased the focus on human health problems posed by hazardous waste

sites; encouraged greater citizen participation in making decisions on how sites should be cleaned up; and increased the size of the trust fund to $8.5 billion.

Chemical Accident Prevention Provisions

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. These rules, which built upon existing industry codes and standards, require companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program.

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act, also known as SARA Title III, was enacted in October 1986. This law requires any infrastructure at the state and local levels to plan for chemical emergencies. Reported information is then made publicly available so that interested parties may become informed about potentially dangerous chemicals in their community. Sections 301 through 312 of the act are administered by EPA's Office of Emergency Management. EPA's Office of Information Analysis and Access implements the SARA Title III Section 313 program. In California, SARA Title III is implemented through CalARP. As the CUPA for the majority of the County, the LACoFD and its Participating Agencies implement the CalARP program.

Hazardous Materials Transportation Act

The U.S. Department of Transportation regulates hazardous materials transportation under Title 49 of the Code of Federal Regulations, the Hazardous Materials Transportation Act. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and Caltrans. These agencies also govern permitting for hazardous materials transportation. The Hazardous Materials Transportation Act reflects laws passed by Congress as of January 2, 2006.

EPA Region 9, Preliminary Remediation Goals

Region 9 is the Pacific Southwest Division of the EPA, which includes Arizona, California, Hawaii, Nevada, Pacific Islands, and over 140 Tribal Nations. Preliminary Remediation Goals (PRGs) are tools for evaluating and cleaning up contaminated sites. PRGs for the Superfund/ RCRA programs are risk-based concentrations, derived from standardized equations combining exposure information assumptions with EPA toxicity data. They are considered to be protective for humans (including sensitive groups) over a lifetime. However, PRGs are not always applicable to a particular site and do not address non-human health issues such as ecological impacts. Region 9's PRGs are viewed as agency guidelines, not legally enforceable standards.

Federal Aviation Administration Functions

The FAA has primary responsibility for the safety of civil aviation. The FAA's major functions regarding hazards include the following: (1) developing and operating a common system of air traffic control and navigation for both civil and military aircraft; (2) developing and implementing programs to control aircraft noise and other environmental effects of civil aviation; (3) regulating U.S. commercial space transportation; and (4) conducting reviews to determine that the safety of persons and property on the ground are protected.

U.S. Department of Defense Air Installations Compatible Use Zone Program

Safety compatibility criteria for military air bases are set forth through the AICUZ program administered by the Department of Defense. This program applies to military air installations located within the United States and its territories, trusts, and possessions. The AICUZ program has the following four purposes: (1) to set forth Department of Defense policy on achieving compatible use of public and private lands in the vicinity of military airfields; (2) to define height and land use compatibility restrictions; (3) to define procedures by which AICUZ may be defined; and (4) to provide policy on the extent of government interest in real property within these zones that may be retained or acquired to protect the operational capability of active military airfields.

The Robert T. Stafford Disaster Relief and Emergency Assistance Act, as Amended, and Related Authorities

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Pub. Law 93-288), as amended (U.S. Code, Title 42, §§ U.S.C. 5121–5206), and implementing regulations (Code of Fed. Regs., Title 44, §§ 206.31–206.48) provide the statutory framework for a presidential declaration of an emergency or a declaration of a major disaster. Such declarations open the way for a wide range of federal resources to be made available to assist in dealing with an emergency or major disaster. The Stafford Act structure for the declaration process reflects the fact that federal resources under this act supplement state and local resources for disaster relief and recovery. Except in the case of an emergency involving a subject area that is exclusively or preeminently in the federal purview, the governor of an affected state, or acting governor if the governor is not available, must request such a declaration by the president.

Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that: (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Stafford Act,

as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a Presidential declaration of a major disaster or emergency.

International Fire Code

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code (IBC) use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the IFC employs a permit system based on hazard classification. The IFC is updated every 3 years.

National Fire Protection Association

The National Fire Protection Association prescribes minimum requirements necessary to establish a reasonable level of fire safety and property protection from the hazards created by fire and explosion. The standards apply to the manufacture, testing, and maintenance of equipment.

State

Government Code Section 65962.5(a), Cortese List

The Hazardous Waste and Substance Sites Cortese List is a planning document used by the state, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the CalEPA to develop at least annually an updated Cortese List. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

California Health and Safety Code, Hazardous Materials Release Response Plans and Inventory

Two programs found in Chapter 6.95 of the California Health and Safety Code are directly applicable to the CEQA issue of risk due to hazardous substance release. In the County, these two programs are implemented as part of the Hazardous Material Management Plans and Inventories

Program, and the CalARP program. The HHMD is responsible for the implementation of the Hazardous Material Management Plans and Inventories and CalARP programs. The programs provide threshold quantities for regulated hazardous substances. When the indicated quantities are exceeded, a hazardous materials business plan or RMP is required pursuant to this regulation. Congress requires the EPA Region 9 to make RMP information available to the public through the EPA's Envirofacts Data Warehouse. The Envirofacts Data Warehouse is considered the single point of access to select EPA environmental data.

Hazardous Waste Control Law

The DTSC regulates the generation, transportation, treatment, storage and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law (Title 22, Cal. Code Regs., Ch. 6.5). Both laws impose "cradle to grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. CalEPA has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other CUPAs, including the HHMD.

Title 23 of the California Code of Regulations, Underground Storage Tank Act

The UST monitoring and response program is required under the Underground Storage Tank Act (Cal. Health and Safety Code, Ch. 6.7) and Title 23 of the California Code of Regulations. The program was developed to ensure that the facilities meet regulatory requirements for design, monitoring, maintenance, and emergency response in operating or owning USTs. The HHMD is the local administering agency for this program.

Title 27 of the California Code of Regulations, Solid Waste

Title 27 of the California Code of Regulations contains a waste classification system that applies to solid wastes that cannot be discharged directly or indirectly to waters of the state and which therefore must be discharged to waste management sites for treatment, storage, or disposal (Cal. Code Regs., Title 27, Div. 2).

Aboveground Petroleum Storage Act

The Aboveground Petroleum Storage Act (Cal. Health and Safety Code, §§ 25270–25270.13) requires registration and spill prevention programs for ASTs that store petroleum. In some cases, ASTs for petroleum may be subject to groundwater monitoring programs that are implemented by the Regional Water Quality Control Boards and the State Water Resources Control Board. The HHMD and its Participating Agencies is the local administering agency for this program.

California Human Health Screening Levels

The California Human Health Screening Levels (CHHSLs or "Chisels") are concentrations of 54 hazardous chemicals in soil or soil gas that CalEPA considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment on behalf of CalEPA. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the EPA and CalEPA. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSL can be assumed to not pose a significant health risk to people who may live or work at the site. There are separate CHHSLs for residential and commercial/industrial sites.

Senate Bill 1889, Accidental Release Prevention Law/CalARP Program

Senate Bill 1889 required California to implement a new federally mandated program governing the accidental airborne release of chemicals promulgated under Section 112 of the Clean Air Act. Effective January 1, 1997, CalARP replaced the previous California Risk Management and Prevention Program and incorporated the mandatory federal requirements. CalARP addresses facilities that contain specified hazardous materials, known as "regulated substances" that, if involved in an accidental release, could result in adverse off-site consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive.

Emergency Response to Hazardous Materials Incidents

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local government, and private agencies. The plan is administered by CalEMA and includes response to hazardous materials incidents. The CalEMA coordinates the response of other agencies, including CalEPA, California Highway Patrol, California Department of Fish and Wildlife, and Regional Water Quality Control Board.

California State Aeronautics Act

The State Aeronautics Act is implemented by Caltrans Division of Aeronautics. The purpose of this Act is to (1) foster and promote safety in aeronautics; (2) ensure state provide laws and regulations relating to aeronautics are consistent with federal aeronautics laws and regulations; (3) assure that persons residing in the vicinity of airports are protected against intrusions by unreasonable levels of aircraft noise; and (4) develop informational programs to increase the understanding of current air transportation issues. Caltrans Division of Aeronautics issues permits for and annually inspects

hospital heliports and public-use airports, makes recommendations regarding proposed school sites within 2 miles of an airport runway, and authorizes helicopter landing sites at/near schools.

California Fire Code

The California Fire Code (CFC) is Chapter 9 of Title 24 of the California Code of Regulations. It is created by the California Building Standards Commission and it is based on the IFC created by the International Code Council. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years.

California Emergency Services Act

This Act was adopted to establish the state's roles and responsibilities during human-made or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or the resources of the state. This Act is intended to protect health and safety by preserving the lives and property of the people of the state.

California Natural Disaster Assistance Act

The California Natural Disaster Assistance Act provides financial aid to local agencies to assist in the permanent restoration of public real property, other than facilities used solely for recreational purposes, when such real property has been damaged or destroyed by a natural disaster. The act is activated after the following occurs: (1) a local declaration of emergency; or (2) the CalEMA gives concurrence with the local declaration, or the Governor issues a Proclamation of a State Emergency. Once the Natural Disaster Assistance Act is activated, local government is eligible for certain types of assistance, depending upon the specific declaration or proclamation issued.

Title 14, Division 1.5 of the California Code of Regulations

California Code of Regulations, Title 14, Division 1.5 establishes the regulations for the California Department of Forestry and Fire Protection (CAL FIRE) and is applicable in all SRAs—areas where CAL FIRE is responsible for wildfire protection. As shown in Figure 4.8-2, portions of the unincorporated areas of the County are in SRAs. Any development in these areas must comply with these regulations. Among other things, Title 14 establishes minimum standards for emergency access, fuel modification, setbacks to property line, signage, and water supply.

California Public Resources Code Sections 4201–4204

These sections of the California Public Resources Code require the California Department of Forestry to classify all SRAs into Fire Hazard Severity Zones. The purpose of this code is to provide classification of lands within SRAs in accordance with the severity of fire hazard present for the purpose of identifying measures to retard the rate of spreading and to reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life, or property.

Local

Certified Unified Program Agency

A CUPA is an agency certified by the DTSC to conduct the Unified Program, which is a collection of state-mandated programs that were formulated to protect people and the environment from the effects of hazardous materials handling, storage, and release. For all unincorporated and most incorporated areas within the County, the HHMD is the CUPA. Within the jurisdiction of the HHMD, a variety of Participating Agencies assist with the administration of the Unified Program, including County Department of Public Works (DPW) Environmental Programs Division and the County Agricultural Commissioner/Weights and Measures. The programs administrated by the HHMD and its Participating Agencies are as follows: Hazardous Waste Generator Program, Aboveground Petroleum Storage Tank Program, Underground Petroleum Storage Tank Program, Hazardous Material Release Response Plans and Inventory Program, CalARP, and the Uniform Fire Code Hazardous Material Management Plans and Inventories Program (County of Los Angeles 2009). The HHMD Site Mitigation Unit oversees corrective action at contaminated sites in the County.

Los Angeles County Code, Title 11 – Health and Safety

Title 11, Health and Safety, of the Los Angeles (L.A.) County Code contains regulations addressing issues such as public health, hazardous commercial and residential operations, water hazards, and storage of hazardous materials. Division 2, General Hazards, covers a variety of hazardous industrial and residential conditions by providing "minimum standards to safeguard life, limb, safety and public welfare by requiring protections from hazardous bodies of water, wells and other defined excavations and abandoned chests, not presently covered by statutes of the state of California" (L.A. County Code, § 11.40.020). Division 4, Underground Storage of Hazardous Materials, prevents and controls unauthorized discharges of hazardous materials from underground storage tanks (L.A. County Code, § 11.72.020).

Los Angeles County 2013 Strategic Fire Plan

The State Board of Forestry and CAL FIRE prepared a comprehensive document for wildland fire protection in California. The LACoFD Forestry Division's Fire Plan Unit is in charge of

implementing the California Fire Plan in the County. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative inter-dependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis. The plan also includes a list of existing LACoFD helispots, water resources, a Motorway Maintenance Map, and a description of the road and fuel maintenance functions of the LACoFD and DPW. Los Angeles County is one of six contract counties that maintain a contractual relationship with the California Department of Forestry. The contract counties implement the California Fire Plan within Los Angeles County through the County Strategic Fire Plan. The Strategic Fire Plan prepared by the LACoFD identifies and prioritizes pre- and post-fire management strategies and tactics to reduce loss of life, property, and natural resources. The plan is updated annually.

Vegetation Management Program

The Vegetation Management Program is a cost-sharing program that focuses on the use of prescribed fire, hand crews, mechanical, biological and chemical means, for addressing wildland fire fuel hazards, habitat restoration and other resource management issues on SRA and LRA lands. The Vegetation Management Program allows private landowners to enter into a contract with CAL FIRE to use an integrated vegetation management plan to accomplish a combination of fire protection and resource management goals. The LACoFD Forestry Division's Vegetation Management Unit and the Air and Wildland Division's Prescribed Fire Office implement the Vegetation Management Program projects.

Los Angeles County Fire Code and Building Code

The County Fire Code (Title 32) and Building Code (Title 26) establish standards for the construction, design, and distribution of fire suppression facilities. These policies ensure that new developments comply with criteria regarding fire flow, minimum distance to fire stations, public and private fire hydrants, and access provisions for firefighting units.

Los Angeles County Fire Department Regulations

The LACoFD has adopted programs directed at wildland fire prevention, including adoption of State Fire Code standards for new development in hazardous fire areas. Fire prevention requirements include the provision of access roads, adequate road width, and clearance of brush around structures located in hillside areas. In addition, proof of adequate water supply for fire flow is required within a designated distance for new construction.

4.8.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts related to hazards and hazardous materials are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

A. Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials.

B. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment.

C. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses.

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

E. For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard for people residing or working in the project area.

F. For a project within the vicinity of a private airstrip, would result in a safety hazard for people residing or working in the project area.

G. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

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.

I. The proposed use would constitute a potentially dangerous fire hazard.

4.8.4 Impacts Analysis

Criterion A: ***Would the project create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?***

Criterion B: ***Would the project 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?***

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may be developed pursuant to the proposed project in all areas of the unincorporated County over which the County has land use jurisdiction. Small-scale solar energy systems may be affixed to the ground or mounted on a structure, such as a building or carport, and are used to generate energy primarily for on-site uses. A utility-scale structure-mounted solar energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where solar energy is used to generate power primarily for off-site use.

A variety of chemicals and materials are required during construction, operation, maintenance, and decommissioning of solar energy systems and facilities. Chemicals and materials used for

operation, such as heat transfer fluids and dielectric fluids, are generally confined to the devices in which they operate. High-performance PV cells often contain toxic metals that are also confined within the cells but have the potential to be released in the event of breakage. Chemical use in small-scale solar energy systems and utility-scale structure-mounted solar energy facilities generally consists of any toxic materials contained within PV cells. During construction/installation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities, hazardous materials, such as petroleum products, would be brought to and used on the site.

Minor appurtenant devices such as inverters, batteries, and junction boxes are typically required to connect the system or facility to the electrical grid and/or to the building on which the system is installed. Maintenance for small-scale solar systems is minimal and consists of recommended yearly inspections, periodic cleaning in climates with infrequent rainfall, and potential replacement of parts after the first 10 years of operation (DOE 2009). High-performance PV cells, such as those for utility-scale solar energy facilities, often contain toxic metals that are confined within the cells but have the potential to be released in the event of breakage. However, utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff, and are inspected once or twice annually.

In addition, numerous federal, state, and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of such hazardous materials. Regulations that would be required of those transporting, using or disposing of hazardous materials are discussed above and include RCRA, CERCLA, the Hazardous Materials Transportation Act, the IFC, California Code of Regulations Title 22 and Title 27, and the County Fire Code.

Furthermore, numerous federal, state, and local regulations exist that reduce the potential for humans or the environment to be affected by an accidental release of hazardous materials. These include, but are not limited to, the following: (1) Chemical Accident Prevention Provision; (2) RCRA; (3) Stafford Act; (4) California Health and Safety Code, which provides threshold quantities for regulated hazardous substances and the establishment of Hazardous Materials Release Response Plans; (5) Title 23 of the California Code of Regulations, which ensures that facilities meet regulatory requirements for underground storage tanks; (6) the Aboveground Petroleum Storage Act; (7) CalARP; (8) Emergency Response to Hazardous Materials Incidents; (9) California Emergency Services Act; and (10) County Fire Code. The County Department of Public Health (DPH) is also required to conduct ongoing routine inspections to ensure compliance with existing laws and regulations; to identify safety hazards that could cause or contribute to an accidental spill or release; and to suggest preventive measures to minimize the risk of a spill or release of hazardous substances.

Future small-scale solar energy systems and utility-scale solar energy facilities would not result in a significant hazard to the public or environment because storage, handling, transport, emission, and disposal of hazardous substances, if any, must comply with federal, state, and local regulations. Compliance with such regulations would minimize the potential for a release to occur and provide planning mechanisms for prompt and effective cleanup if an accidental release occurred. Because projects are required to comply with federal state, and local regulations, impacts due to the use or accidental release of hazardous materials into the environment would be **less than significant.**

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

A small-scale wind energy system is defined as a system where wind is used to generate energy primarily for on-site use. Such systems may be affixed either to the ground or to a structure other than the system's mechanical support structure, such as a building or carport.

Future small-scale wind energy systems or temporary MET towers would have limited potential to accidentally release hazards to the environment because these turbines and towers would be accessory structures and would not involve the routine use and storage of hazardous materials. The only potentially toxic or hazardous materials are relatively small amounts of lubricating oils and hydraulic and insulating fluids. Lubricating oils are used on the bearings of wind turbines and can be highly flammable. Environmental design considerations, as indicated in Table 3-2 of this EIR, state that all equipment and facilities associated with small-scale wind energy systems and temporary MET towers shall be maintained in an operational condition that poses no potential safety hazard. Maintenance ~~shall include, but not be limited to,~~activities typically consist of painting, regularly scheduled cleaning, mechanical/electrical repairs, structural repairs, and security measures. Future small-scale wind energy systems or temporary MET towers would not result in a significant hazard to the public or environment because any storage, handling, transport, emission, and disposal of hazardous substances must comply with local, state, and federal regulations. Compliance with such regulations would minimize the potential for a release to occur and provide planning mechanisms for prompt and effective cleanup if an accidental release occurred. Because projects are required to comply with local, state, and federal regulation, impacts due to the use or accidental release of hazardous materials into the environment would be **less than significant.**

Utility-Scale Ground-Mounted Renewable Energy Facilities

A utility-scale ground-mounted renewable energy facility is defined as a facility affixed to the ground where renewable resources are used to generate energy primarily for off-site use. This definition includes all equipment and accessory structures related to the facility, including but not limited to solar collector arrays, wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures.

A variety of chemicals and materials are required during construction, operation, and decommissioning of solar energy facilities. Chemicals and materials used for operation, such as heat transfer fluids and dielectric fluids, are generally confined to the devices in which they operate. High-performance PV cells often contain toxic metals that are confined within the cells but have the potential to be released in the event of breakage. Maintenance shall include, but not be limited to, regularly scheduled cleaning, mechanical/electrical repairs, structural repairs, and security measures.

All future large wind turbine projects would be subject to discretionary review and would be required to obtain a CUP. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials, as necessary. Temporary construction activities on the project site would involve the use and storage of commonly used hazardous materials such as gasoline, diesel fuel, lubricating oil, grease, and other vehicle and equipment maintenance fluids should the facilities require ground disturbance/excavation. These materials would be used and stored in designated construction staging areas within the project site boundaries. These hazardous materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. The only potentially toxic or hazardous operational materials are relatively small amounts of lubricating oils and hydraulic and insulating fluids. Lubricating oils are used on the bearings of wind turbines and can be highly flammable.

Consequently, the materials alone, and use of these materials for their intended purpose, would not pose a significant risk to the public or the environment. Future large wind turbine projects would be required to comply with applicable federal, state, and local regulations related to the transportation, use, storage, and disposal of hazardous materials. Compliance with such regulations would minimize the potential for a release to occur and provide planning mechanisms for prompt and effective cleanup if an accidental release occurred.

Numerous federal, state, and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of such hazardous materials.

Regulations that would be required of those transporting, using, or disposing of hazardous materials are discussed above and include RCRA, CERCLA, the Hazardous Materials Transportation Act, the IFC, California Code of Regulations Title 22 and Title 27, and the County Fire Code.

Furthermore, numerous federal, state, and local regulations exist that reduce the potential for humans or the environment to be affected by an accidental release of hazardous materials. These include, but are not limited to, the following: (1) Chemical Accident Prevention Provision; (2) RCRA; (3) Stafford Act; (4) California Health and Safety Code, which provides threshold quantities for regulated hazardous substances and the establishment of Hazardous Materials Release Response Plans; (5) Title 23 of the California Code of Regulations, which ensures that facilities meet regulatory requirements for underground storage tanks; (6) Aboveground Petroleum Storage Act; (7) CalARP; (8) Emergency Response to Hazardous Materials Incidents; (9) California Emergency Services Act; and (10) County Fire Code. The DPH is also required to conduct ongoing routine inspections to ensure compliance with existing laws and regulations, to identify safety hazards that could cause or contribute to an accidental spill or release, and to suggest preventive measures to minimize the risk of a spill or release of hazardous substances.

Future utility-scale ground-mounted renewable energy facilities are not anticipated to result in a significant hazard to the public or environment because any storage, handling, transport, emission, and disposal of hazardous substances must comply with federal, state, and local regulations. Compliance with such regulations would minimize the potential for a release to occur and provide planning mechanisms for prompt and effective cleanup if an accidental release occurred. Because projects are required to comply with federal, state, and local regulations, impacts due to the use of hazardous materials or accidental release of hazardous materials into the environment would be **less than significant.**

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind turbines would require the same chemicals and materials used for utility-scale ground-mounted turbines. Temporary construction activities on the project site would involve the use and storage of commonly used hazardous materials such as gasoline, diesel fuel, lubricating oil, grease, and other vehicle and equipment maintenance fluids should the facilities require grading/excavation. These materials would be used and stored in designated construction staging areas within the project site boundaries. The only potentially toxic or hazardous operational materials are relatively small amounts of lubricating oils and hydraulic and insulating fluids. Lubricating oils are used on the bearings of wind turbines and can be highly flammable.

All future utility-scale structure-mounted wind energy facilities would be subject to discretionary review and required to obtain a Minor CUP (with the exception of facilities in R-1 zones, which would be required to obtain a CUP). As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials, as necessary. These hazardous materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. Further, numerous federal, state, and local regulations reduce the potential for humans or the environment to be affected by an accidental release of hazardous materials. Therefore, compliance with all regulations would ensure that future utility-scale structure-mounted wind energy facilities would have a **less than significant** impact.

Criterion C: ***Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses?***

Criterion D: ***Would the project 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?***

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities have the potential to be located on sensitive land uses and/or within 0.25 mile of sensitive land uses. A variety of chemicals and materials are required during construction, operations and maintenance, and decommissioning of utility-scale structure-mounted solar energy facilities. Chemicals and materials used for operation are generally confined to the devices in which they operate. High-performance PV cells often contain toxic metals that are confined within the cells but have the potential to be released in the event of breakage. Chemical use in small-scale solar energy systems and facilities generally consists of any toxic materials contained within PV cells. Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not include the use of a regulated substance subject to CalARP RMP requirements (per Cal. Code Regs., Title 19, Div. 2, Ch. 4.5).

Numerous federal, state, and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of such hazardous materials. Furthermore, numerous federal, state, and local regulations exist that reduce the potential for humans or the environment to be affected by an accidental release of hazardous materials. Regulations that would be required of those transporting, using, or disposing of hazardous materials, as well as those that minimize the potential for accidental release, are discussed above.

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may be located on a site listed in the state Hazardous Waste and Substances Sites list compiled pursuant to California Government Code Section 65962.5. However, such projects would not create a significant hazard to the public or the environment because if a property is on the list, the County would not issue an electrical or building permit until any significant hazard has been referred to, and remediated to the satisfaction of, the DPH. Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities are required to obtain electrical and/or building permits because, at a minimum, all electrical work for solar energy systems requires an electrical permit. Therefore, because remediation of the site would occur prior to issuance of an electrical or building permit, a project would not create a significant hazard to the public or the environment and would not contribute to a cumulatively considerable impact. Additionally, installation of structure-mounted facilities would typically involve little to no ground-disturbance, thereby limiting the potential for contact with soil or groundwater contamination and any associated remediation requirements.

Future small-scale solar energy systems and utility-scale structure mounted solar energy facilities have the potential to be located on sensitive land uses and/or within 0.25 mile of sensitive land uses. However, future projects would be required to comply with federal, state, and local regulations. Compliance with such regulations would minimize the potential for a release to

occur and provide planning mechanisms for prompt and effective cleanup if an accidental release occurred. Because projects are required to comply with federal, state, and local regulations, and because site remediation would be required prior to installation, impacts due to the handling of hazardous materials in proximity to sensitive land uses, as well as impacts due to siting a system or facility on a state-listed hazardous waste site, would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under the CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Small-scale wind energy systems and/or temporary MET towers could be located within 0.25 mile of sensitive land uses. The only potentially toxic or hazardous materials are relatively small amounts of lubricating oils and hydraulic and insulating fluids. Lubricating oils are used on the bearings of wind turbines and can be highly flammable.

Due to the regulatory requirements related to hazardous substances identified above under Criteria A and B, and the fact that the initial planning, ongoing monitoring, and inspections would comply with local, state, and federal regulation, the project would not have substantial adverse effects related to the hazardous emissions or handling of hazardous substances, or waste within 0.25 mile of sensitive land uses. Furthermore, small-scale wind energy systems and/or temporary MET towers would require discretionary review permits, at which time each proposed project would be evaluated under CEQA on a project-specific level.

Future small-scale wind energy systems or temporary MET towers may be located on a site listed in the state Hazardous Waste and Substances sites list compiled pursuant to California Government Code Section 65962.5. However, a project would not create significant hazard to the public or the environment because if a property is on the list, the County would not issue a Minor CUP until any significant hazard has been referred to and remediated to the satisfaction of the DPH. Therefore, because remediation of the site would occur prior to issuance of a Minor CUP, a project would not create a significant hazard to the public or the environment and would not contribute to a cumulatively considerable impact.

Future small-scale wind energy systems or temporary MET towers have the potential to be located within 0.25 mile of sensitive land uses. However, each individual project would be required to comply with local, state, and federal regulations. Compliance with such regulations would minimize the potential impact of handling hazardous materials within 0.25 mile of

sensitive land uses. Because projects are required to comply with local, state, and federal regulation, and because site remediation would be required prior to installation, impacts due to the handling of hazardous materials in proximity to sensitive land uses, as well as impacts due to siting a small-scale wind energy system or a temporary MET tower on a state-listed hazardous waste site, would be **less than significant.**

Utility-Scale Ground-Mounted Renewable Energy Facilities

As previously identified, a variety of chemicals and materials are required during construction, operation, and maintenance~~,~~ of utility-scale ground-mounted renewable energy facilities. All future utility-scale ground-mounted facilities would be subject to discretionary review and required to obtain a CUP. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to sensitive land uses that are within 0.25 mile of facilities handling hazardous materials.

Due to the regulatory requirements related to hazardous substances identified under Criteria A and B, and the fact that the initial planning, ongoing monitoring, and inspections would comply with local, state, and federal regulation, the project would not have substantial adverse effects related to the hazardous emissions or handling of hazardous substances, or waste within 0.25 mile of sensitive land uses.

Future utility-scale ground-mounted renewable energy facilities may be located on a site listed in the state Hazardous Waste and Substances Sites list compiled pursuant to California Government Code, Section 65962.5. However, a project would not create significant hazard to the public or the environment because if a property is on the list, the County would not issue a CUP until any significant hazard has been referred to and remediated to the satisfaction of the DPH. Therefore, because remediation of the site would occur prior to issuance of a CUP, a project would not create a significant hazard to the public or the environment. All sites applying for a CUP would be required to remediate a site prior to issuance of a CUP. Therefore, future utility-scale ground-mounted renewable energy facilities would not contribute to a cumulatively considerable impact.

Utility-scale ground-mounted renewable energy facilities have the potential to be located within 0.25 mile of sensitive land uses. However, each individual project would be required to comply with local, state, and federal regulations. Compliance with such regulations would minimize the potential impact of handling hazardous materials within 0.25 mile of sensitive land uses. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to sensitive land uses that are within 0.25 mile of facilities handling hazardous materials. Because projects are required to comply with local, state, and federal regulation, and because site remediation would be required

prior to installation, impacts due to the handling of hazardous materials in proximity to sensitive land uses, as well as impacts due to siting a facility on a state-listed hazardous waste site, would be **less than significant.**

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would have effects similar to those of utility-scale ground-mounted wind energy facilities. Utility-scale structure-mounted wind energy facilities have the potential to be located within 0.25 mile of sensitive land uses. All future utility-scale structure-mounted wind energy facilities would be subject to discretionary review and required to obtain a Minor CUP (with the exception of facilities in an R-1 zone, which would require a CUP). As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to sensitive land uses that are within 0.25 mile of facilities handling hazardous materials.

Future utility-scale structure-mounted wind energy facilities may be located on a site listed in the state Hazardous Waste and Substances Sites list compiled pursuant to Government Code, Section 65962.5. However, a project would not create significant hazard to the public or the environment because if a property is on the list, the County would not issue a Minor CUP (or CUP) until any significant hazard has been referred to and remediated to the satisfaction of the DPH Department of Environmental Health. Therefore, because remediation of the site would occur prior to issuance of a Minor CUP, a project would not create a significant hazard to the public or the environment. All sites applying for a Minor CUP would be required to remediate a site prior to issuance of a Minor CUP. Therefore, future utility-scale structure-mounted wind energy facilities would not contribute to a considerable impact.

Further, each individual project would be required to comply with federal, state, and local regulations. Compliance with such regulations would minimize the potential impact of handling hazardous materials within 0.25 mile of sensitive land uses. Because projects are required to comply with federal, state, and local regulation, and because site remediation would be required prior to installation, impacts due to the handling of hazardous materials in proximity to sensitive land uses, as well as impacts due to siting a facility on a state-listed hazardous waste site, would be **less than significant.**

Criterion 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?

Criterion 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?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

The main compatibility concerns for the protection of airport airspace are related to airspace obstructions (e.g., building height, antennas) and hazards to flight (e.g., wildlife attractants, distracting lighting or glare). The proposed Zoning Code amendments apply to the entire unincorporated County. Therefore, future small-scale solar energy systems or utility-scale structure-mounted solar energy facilities may be located within an ALUCP (including the comprehensive Los Angeles County Airport Land Use Plan (ALUP) and the ALUCP for the General William J. Fox Airfield in Lancaster), Airport Influence Area, within 2 miles of a public airport, within the safety zone for an airport, or near a private airstrip and would potentially result in a safety risk.

Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would 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. 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. Glare produced from solar panels represents a potential hazard to flight. The FAA currently has interim regulations regarding glare and ocular obstruction that apply to solar energy systems and

facilities located within federally obligated airports. However, these guidelines do not apply to land outside of federally obligated airports or federally obligated land.

A small-scale solar energy system or utility-scale structure-mounted solar energy facility may be affixed to a structure other than the system's mechanical support structure, such as a building or carport. The combined height of a structure and structure-mounted solar energy systems and facilities may exceed the height limit of the zone by no more than 5 feet; therefore, structure-mounted solar energy systems and facilities are not anticipated to obstruct a flight path. It should also be noted that pursuant to the Code of Federal Regulations, Section 91.119 of the General Operating and Flight Rules, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure except when necessary for takeoff or landing (Code Fed. Regs., Title 14, § 91.119).

As previously discussed, a proposed small-scale solar energy system may be located within an ALUP, an Airport Influence Area, or an FAA Height Notification Surface. However, a future project would not result in hazards to airport safety or surrounding land uses ~~in the following circumstances~~for the following reasons:

- In the event that a small-scale solar energy system or utility-scale structure-mounted facility would be located within an adopted ALUCP or within 2 miles of a public or private airport, the applicant may voluntarily submit the project for evaluation by the Airport Land Use Commission. If a facility is located within the FAA Height Notification Surface due to its proximity to an airport, a notice will be filed with the FAA. The applicant would complete the 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.
- A project would be required to comply with the California Land Use Planning Handbook's Safety Compatibility Criteria for Safety Compatibility Zones.
- The project would have to be determined to be compatible with the applicable ALUP and Compatibility Policies.
- ~~All projects would be required to minimize glare and to utilize non-reflective building materials wherever possible in order to prevent distracting visual hazards.~~
- Projects would not propose any distracting visual hazards including but not limited to distracting lights, sources of smoke or other obstacles or an electronic hazard that would interfere with aircraft instruments or radio communications.

Furthermore, the proposed Zoning Code amendments also requires consultation with aviation-related agencies for projects requiring discretionary approval that are ~~if a future project is~~ located

within the Military Installations and Operations Areas as identified by the ~~existing adopted~~ General Plan. The aviation-related agencies shall review any potential impacts to ensure the safety of residents and continued viability of military training and testing operations. Aviation-related agencies to be consulted include, but are not limited to, the FAA, United States Navy, Edwards Air Force Base, Air Force Plant 42, USFS, Caltrans Division of Aeronautics, the DPW – Aviation Division, the County Forester and Fire Warden, and the County Sheriff.

Although future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be required to comply with all applicable federal, state, and local regulations, glare produced from small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would have the potential to result in ocular obstruction; therefore, impacts would be **potentially significant** (**Impact HAZ-1**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under the CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

The project area consists of the entire unincorporated County. Therefore, future small-scale wind energy systems and temporary MET towers have the potential to be located within an adopted ALUCP (including the comprehensive Los Angeles County ALUP and the ALUCP for the General William J. Fox Airfield in Lancaster) or within 2 miles of a public or private airport. However, the proposed Zoning Code amendments requires consultation with aviation-related agencies for projects requiring discretionary approval that are ~~if a future project is~~ located within the Military Installations and Operations Areas as identified by the ~~existing adopted~~ General Plan. The aviation-related agencies shall review any potential impacts to ensure the safety of residents and continued viability of military training and testing operations. Aviation-related agencies to be consulted include, but are not limited to, the FAA, United States Navy, Edwards Air Force Base, Air Force Plant 42, USFS, Caltrans Division of Aeronautics, the DPW – Aviation Division, the County Forester and Fire Warden, and the County Sheriff.

All small-scale wind energy systems and temporary MET towers would be required to comply with FAA rules (Advisory Circular 70/7460-1K – Obstruction Marking and Lighting), all turbine components, including towers, nacelles, and rotors, are required to be painted or finished using low-reflectivity, neutral white colors if they exceed 200 feet in height (FAA 2007). Exterior lighting on turbines would be limited to FAA aviation warning lights, as necessary. The

minimum intensity of light would be used to meet FAA standards. Additionally, future projects would be required to comply with all environmental design considerations identified in Chapter 3, Table 3-2.

~~The proposed Zoning Code amendments also include the following aviation safety measures relative to temporary MET towers:~~

- ~~All safety lights for any wind tower shall comply with applicable FAA standards. Any aviation-related agency or the Department may require additional standards as deemed necessary. No other lights shall be placed on the wind tower.~~
- ~~Wind towers of less than 200 feet measured from finished grade shall be marked with alternating bands of aviation orange and white paint, and high visibility sleeves installed on the outer guys with high spherical marker balls of aviation orange color.~~

Furthermore, all small-scale wind energy systems and temporary ~~met~~ MET towers would require discretionary review and would be subject to CEQA. CEQA would require the analysis of potential impacts to aviation safety and measures to ensure consistency with adopted ALUPs. Therefore, for the reasons identified above, the proposed project would result in less than significant safety hazards for people residing or working in the project area and impacts would be **less than significant.**

Utility-Scale Ground-Mounted Renewable Energy Facilities

The project area consists of the entire unincorporated County. Therefore, future utility-scale ground-mounted renewable energy facilities would have the potential to be located within an adopted ALUCP (including the comprehensive Los Angeles County ALUP and the ALUCP for the General William J. Fox Airfield in Lancaster) or within 2 miles of a public or private airport. These projects may be reviewed by ALUC if County staff determines that there will be noise and/or safety impacts; however, review by the ALUC is not required and these projects would still be subject to CEQA. As previously discussed, the proposed Zoning Code amendments requires consultation with aviation-related agencies if a future project is located within the Military Installations and Operations Areas as identified within the adopted ALUCPs. The aviation-related agencies shall review any potential impacts to ensure the safety of residents and continued viability of military training and testing operations. Aviation-related agencies to be consulted include, but are not limited to, the FAA, United States Navy, Edwards Air Force Base, Air Force Plant 42, USFS, Caltrans Division of Aeronautics, the DPW – Aviation Division, the County Forester and Fire Warden, and the County Sheriff.

The proposed Zoning Code amendments also include the following aviation safety measures relative to utility-scale ground-mounted renewable energy facilities:

- A utility-scale ground-mounted ~~renewable~~ wind energy facility shall not be located within the Runway Protection Zone of any airport, as depicted in the County's airport land use plans.
- A utility-scale ground-mounted ~~renewable~~wind energy facility shall not penetrate the imaginary surfaces (primary, approach, transitional, horizontal, and conical surfaces) as defined by the FAA Federal Aviation Regulations Part 77 to protect the use of navigable airspace.
- All safety lights for any utility-scale ground-mounted ~~renewable~~ wind energy facility shall comply with applicable FAA standards. Any aviation-related agency or the Department may require additional standards as deemed necessary. No other lights shall be placed on the wind tower.
- In the event that a utility-scale ground-mounted facility would be located within an adopted ALUCP or within 2 miles of a public or private airport, the project would be evaluated by the Airport Land Use Commission. If a facility is located within the FAA Height Notification Surface due to its proximity to an airport, a notice will be filed with the FAA. The applicant would complete the 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.
- A project would be required to comply with the California Land Use Planning Handbook's Safety Compatibility Criteria for Safety Compatibility Zones.
- The project would have to be determined to be compatible with the applicable ALUP and Compatibility Policies.

Additionally, future projects would be required to comply with all environmental design considerations identified in Chapter 3, Table 3-2.

Furthermore, all utility-scale ground-mounted renewable energy facilities would require discretionary review and would be subject to CEQA. CEQA would require the analysis of potential impacts to aviation safety and measures to ensure consistency with adopted ALUCPs. Therefore, for the reasons identified above, the proposed project would result in less than significant safety hazards for people residing or working in the project area and impacts would be **less than significant.**

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would have similar effects to those of utility-scale ground-mounted wind energy facilities. As previously discussed, the project area consists of the entire unincorporated County. Therefore, future utility-scale structure-mounted wind energy facilities would have the potential to be located within an adopted ALUCP (including the comprehensive Los Angeles County ALUCP and the ALUCP for the General William J. Fox Airfield in Lancaster) or within 2 miles of a public or private airport. However, as identified above, the proposed Zoning Code amendments require consultation with aviation-related agencies. The aviation-related agencies shall review any potential impacts to ensure the safety of residents and the continued viability of military training and testing operations.

Future projects would further reduce hazards to airport safety or surrounding land uses for the following reasons:

- In the event that a utility-scale structure-mounted wind energy facility would be located within an adopted ALUCP or within 2 miles of a public or private airport, the project would be evaluated by the Airport Land Use Commission. If a facility is located within the FAA Height Notification Surface due to its proximity to an airport, a notice will be filed with the FAA. The applicant would complete the 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.
- A project would be required to comply with the California Land Use Planning Handbook's Safety Compatibility Criteria for Safety Compatibility Zones.
- The project would have to be determined to be compatible with the applicable ALUCP and Compatibility Policies.

Additionally, future projects would be required to comply with all environmental design considerations identified in Chapter 3, Table 3-2.

Further, all utility-scale structure-mounted wind energy facilities would require discretionary review and would be subject to CEQA. CEQA would require the analysis of potential impacts to aviation safety and measures to ensure consistency with adopted ALUCPs. Therefore, for the reasons identified above, the proposed project would not result in a safety hazard for people residing or working in the project area and impacts would be **less than significant**.

Criterion G: Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Interference with an adopted emergency response or evacuation plan would result in an adverse physical effect to people or the environment by potentially increasing the loss of life and property in the event of a disaster. Development such as stadiums or hospitals, which propose large concentrations of people or special needs individuals, in an area with increased hazards, such as a dam inundation area, could cause adverse effects related to the implementation of emergency response and evacuation plans such as the Multi-Jurisdictional Hazard Mitigation Plan or the Dam Evacuation Plan. Certain tall structures can physically interfere with the implementation of an emergency response if the height of the structure or tower interferes with the ability of emergency air support services to carry out missions associated with an emergency response.

The combined height of a structure and a structure-mounted small-scale solar energy system or utility-scale structure-mounted solar energy facility may exceed the height limit of the zone by no more than 5 feet; therefore, a structure-mounted solar energy system is not anticipated to obstruct a flight path. It should also be noted that pursuant to the Code of Federal Regulations, Section 91.119 of the General Operating and Flight Rules, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure except when necessary for takeoff or landing (Code Fed. Regs., Title 14, § 91.119).

The CEO OEM is responsible for organizing and directing the preparedness efforts of the emergency management organization of the County. The CEO OEM is the day-to-day County Operational Area coordinator for the County. The emergency response plan for the unincorporated areas of the county is the OAERP, which is prepared by the CEO OEM. The OAERP 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-Hazard Mitigation Plan to comply with federal law and to be eligible for disaster funding. Figure ~~9.7~~12.6 of the Safety Element of the ~~2014~~ 2015 Draft General Plan Update 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, and the routes toward which residents will be funneled to exit an area affected by a disaster~~, and the field facilities that will be used by emergency responders to coordinate their activities~~.

Installation/construction of small-scale solar energy systems or utility-scale structure-mounted solar energy facilities is not anticipated to temporarily interrupt access to a site or surrounding area. These types of systems and facilities would be located on existing infrastructure or serve on-site land uses as an accessory use. Construction would be minimal and road closures are not anticipated. For future systems or facilities that would require discretionary permits and project-specific CEQA review, a Traffic Control Plan and construction notification procedures may be required in instances when a full or partial road closure is proposed.

Further, future small-scale solar energy systems and utility-scale structure-mounted solar-energy facilities would not result in an increase in population that an emergency response team is unable to service because the systems and facilities serve on-site land uses as an accessory use. Therefore, for the reasons identified above, future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not significantly impact existing emergency response or evacuation plans; impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under the CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Development such as stadiums or hospitals, which propose large concentrations of people or special needs individuals, in an area with increased hazards, such as a dam inundation area, could cause adverse effects related to the implementation of emergency response and evacuation plans

such as the Multi-Jurisdictional Hazard Mitigation Plan or the Dam Evacuation Plan. Certain tall structures can physically interfere with the implementation of an emergency response if the height of the structure or tower interferes with the ability of emergency air support services to carry out missions associated with an emergency response.

Future small-scale wind energy systems and temporary MET towers would not result in an increase in population that an emergency response team is unable to service because the systems serve land uses as an accessory use or as temporary testing for a future use subject to discretionary permit. Future small-scale wind energy systems and temporary MET towers, however, consist of proposed tall structures that could potentially affect the ability of emergency air support services to carry out missions associated with an emergency response. Construction of future small-scale wind energy systems and temporary MET towers may also result in obstructions on roads that are used as emergency access or evacuation.

However, future small-scale wind energy systems and temporary MET towers would be subject to discretionary review and the County reviews development proposals for consistency with the following plans/regulations: (1) the Statewide Standardized Emergency Management System; (2) the Oil Spill Contingency Element of the Operational Area Emergency Plan (OAEP); (3) the Emergency Water Contingencies Annex and Energy Shortage Response Plan of the OAEP; and (4) the Dam Evacuation Plan. This process ensures that potential issues do not result in significant impacts or impairments to existing emergency response and evacuation plans. Additionally, the aviation consultation process described under Criteria E and F would include a request for consideration of uses that may affect aviation fire fighting operations.

Installation/construction of small-scale wind energy systems and temporary MET towers could potentially temporarily interrupt access to a site or surrounding area. However, through the discretionary review process and CEQA, a Traffic Control Plan and construction notification procedures would be implemented, when necessary, to ensure safe and efficient traffic flow for all traffic, as well as for emergency responders, in the immediate area and on the site during construction activities. The Traffic Control Plan would include provisions for construction times and control plans for allowance of bicycle, pedestrian, and bus access throughout construction. The Traffic Control Plan would also include provisions to ensure emergency vehicle passage at all times. Emergency ingress/egress is established by the County's Fire Code. Ingress/egress is necessary both for citizen evacuation and to provide access for emergency vehicles in the event of a fire or other emergency.

Future small-scale wind energy systems and temporary MET towers would be subject to discretionary review and CEQA. CEQA would require the analysis of potential impacts to emergency preparedness to ensure consistency with adopted emergency response and evacuation plans. Furthermore, future small-scale wind energy systems and temporary MET towers would

not result in a significant increase in population that an emergency response team is unable to service. Therefore, impacts would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

As previously discussed, development such as stadiums or hospitals, which propose large concentrations of people or special needs individuals, in an area with increased hazards, such as a dam inundation area, could cause adverse effects related to the implementation of emergency response and evacuation plans such as the Multi-Jurisdictional Hazard Mitigation Plan or the Dam Evacuation Plan. Certain tall structures can physically interfere with the implementation of an emergency response if the height of the structure or tower interferes with the ability of emergency air support services to carry out missions associated with an emergency response. However, all future utility-scale ground-mounted renewable energy facilities would be required to comply with all aviation-related agencies and federal, state, and local regulations regarding the height of structures. Additionally, the aviation consultation process described under Criteria E and F would include a request for consideration of uses that may affect aviation fire fighting operations.

Installation/construction of utility-scale ground-mounted renewable energy facilities would potentially temporarily interrupt access to a site or surrounding area. However, through the discretionary review process and CEQA, a Traffic Control Plan and construction notification procedures would be implemented when a road closure in required, is order to ensure safe and efficient traffic flow for all traffic, as well as for emergency responders, in the immediate area and on the site during construction activities. The Traffic Control Plan would include provisions for construction times and control plans for allowance of bicycle, pedestrian, and bus access throughout construction. The Traffic Control Plan would also include provisions to ensure emergency vehicle passage at all times. Emergency ingress/egress is established by the County's Fire Code. Ingress/egress is necessary both for citizen evacuation and to provide access for emergency vehicles in the event of a fire or other emergency. Through the discretionary review process, an emergency evacuation plan to handle the temporary increase in employees on a site during construction may also be required.

As identified previously, all future utility-scale ground-mounted renewable energy facilities would be subject to discretionary review and the County would review development proposals for consistency with the applicable plans and regulations. Future utility-scale ground-mounted facilities would also be subject to CEQA. CEQA would require the analysis of potential impacts to emergency preparedness to ensure consistency with adopted emergency response and evacuation plans. Further, future utility-scale ground-mounted renewable energy facilities would not result in a potentially significant increase in population that an emergency response team is unable to service. Therefore, impacts would be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would have similar effects to those of utility-scale ground-mounted wind energy facilities. As previously discussed, development such as stadiums or hospitals, which propose large concentrations of people or special needs individuals, in an area with increased hazards, such as a dam inundation area, could cause adverse effects related to the implementation of emergency response and evacuation plans such as the Multi-Jurisdictional Hazard Mitigation Plan or the Dam Evacuation Plan. Certain tall structures can physically interfere with the implementation of an emergency response if the height of the structure or tower interferes with the ability of emergency air support services to carry out missions associated with an emergency response. However, all future utility-scale structure-mounted wind energy facilities would be required to comply with all aviation-related agencies and federal, state, and local regulations regarding the height of structures. Additionally, the aviation consultation process described under Criteria E and F would include a request for consideration of uses that may affect aviation fire fighting operations.

Installation/construction of utility-scale structure-mounted wind energy facilities would potentially temporarily interrupt access to a site or surrounding area. However, through the discretionary review process and CEQA, a Traffic Control Plan and construction notification procedures would be implemented, when necessary, to ensure safe and efficient traffic flow for all traffic, as well as for emergency responders, in the immediate area and on the site during construction activities. The Traffic Control Plan would include provisions for construction times and control plans for allowance of bicycle, pedestrian, and bus access throughout construction. The Traffic Control Plan would also include provisions to ensure emergency vehicle passage at all times. Emergency ingress/egress is established by the County's Fire Code. Ingress/egress is necessary both for citizen evacuation and to provide access for emergency vehicles in the event of a fire or other emergency. Through the discretionary review process, an emergency evacuation plan to handle the temporary increase in employees on a site during construction may also be required.

As identified above, all future utility-scale structure-mounted wind energy facilities would be subject to discretionary review and the County would review development proposals for consistency with the applicable plans and regulations. Future utility-scale structure-mounted wind energy facilities would also be subject to CEQA. CEQA would require the analysis of potential impacts to emergency preparedness to ensure consistency with adopted emergency response and evacuation plans. Further, future utility-scale structure-mounted wind energy facilities would not result in a significant increase in population that an emergency response team is unable to service. Therefore, impacts would be **less than significant**.

Criterion H: ***Would the project 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?***

Criterion I: ***Does the proposed use constitute a potentially dangerous fire hazard?***

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

The proposed Zoning Code amendments apply to the entire unincorporated County. Therefore, proposed small-scale solar energy systems may be located in a Very High Fire Hazard Severity Zone (Zone 4); or in a high fire hazard area with inadequate access; or within an area with inadequate water and pressure; or within proximity to land uses that have the potential for dangerous fire hazards. Small-scale solar energy systems or utility-scale structure-mounted solar energy facilities may be affixed to a structure other than the system's or facility's mechanical support structure, such as a building or carport. Thus, these systems and facilities are most likely to be located in areas that are surrounded by urbanized areas and/or irrigated lands, and where

there are no adjacent wildland areas. Therefore, future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities are not anticipated to expose people or structures to a significant risk of loss, injury, or death involving hazardous wildland fires.

Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities that would not occur within an urban area and would occur within proximity to high fire hazard areas could potentially present a fire hazard. Vegetation on sites and adjacent sites could be dominated by chaparral species, which represent fuels that would spread wildfire on and off the site. Based on the region's fuels, fire history, and expected fire behavior, a high-intensity fire could be expected to occur in some areas, which could pose a potentially significant hazard to those working on a site or in the surrounding area.

Construction activities that may result in ignition sources would include vegetation clearing and piling, ground disturbance, site preparation, soil disturbances, concrete pouring and preparation, and construction and refueling. These construction activities may involve the presence of vehicles, heavy equipment, heat-generating equipment and activities, sparks from various sources, and potentially discarded cigarettes, among others, as well as use of fuels, and combustible materials during construction and infrastructure installation. Construction activities associated with structure-mounted solar energy systems and facilities that may result in ignition sources could include chainsaws, wood chippers, grinders, and torches that could create sparks, be a source of heat, or leak flammable materials; compost piles; and other human activities and waste that would increase the possibility of fire. However, these construction activities and equipment would be very limited for small-scale solar energy systems, if required at all.

Operations and maintenance of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities could introduce potential ignition sources that do not currently exist on a site. The site's inverters, solar panels, and trackers represent potential ignition sources that are considered to have low likelihood of causing fires. All of this equipment represents a risk of sparking or igniting nearby off-site flammable vegetation.

The potential risk for fire ignition and spread associated with construction and operations and maintenance can be managed and pre-planned so that the potential for ignition is minimized. Pre-planning and personnel fire awareness and suppression training also results in lower probability of ignition and higher probability of fire control and extinguishment in its incipient stages. Overall maintenance of future solar energy systems and facilities would include proper storage of flammable materials, upkeep of operating equipment, and management of vegetation growth. In addition, future projects would comply with the requirements of the LACoFD.

Federal, state, and County regulations exist that reduce hazards to the public and environment from wildland fires. These include, but are not limited to, the following: (1) the California ~~the~~ Natural Disaster Assistance Act; (2) County Vegetation and Other Flammable Materials Ordinance; (3) fire protection plans (FPPs); and (4) County Fire Code.

While existing County policies and regulations are intended to reduce impacts associated with wildland fires, no environmental review would be required prior to development of these projects. Where development does not require discretionary review, the County could not be certain that all potential impacts that could result from the development of small-scale solar energy systems would be avoided. However, structures upon which a small-scale solar energy system would be installed would have been constructed in accordance with all applicable state and County building codes. Structures would have been required to demonstrate that adequate water and pressure exists and meets the fire flow standards. Ground-mounted small-scale solar energy systems would require a ministerial permit, and would be required to comply with the Fire Code.

Further, as discussed under Criterion G, installation/construction of small-scale solar energy systems or utility-scale structure-mounted solar energy facilities would potentially temporarily interrupt access to a site or surrounding area. However, for future systems or facilities that would require discretionary permits and project-specific CEQA review~~through the discretionary review process and CEQA~~, a Traffic Control Plan and construction notification procedures would be implemented if full or partial road closures are required, in order to ensure safe and efficient traffic flow for all traffic, as well as for emergency responders, in the immediate area and on the site during construction activities. The Traffic Control Plan would include provisions for construction times and control plans for allowance of bicycle, pedestrian, and bus access throughout construction. The Traffic Control Plan would also include provisions to ensure emergency vehicle passage at all times. Emergency ingress/egress is established by the County's Fire Code. Ingress/egress is necessary both for citizen evacuation and to provide access for emergency vehicles in the event of a fire or other emergency.

Although existing County policies and regulations are intended to reduce impacts associated with fires, no environmental review would be required prior to development of many of these projects. Where development does not require discretionary review, the County could not be certain that all potential impacts that could result from this development would be avoided. Therefore, the proposed project may result in a **potentially significant** impact involving fires (**Impact HAZ-2**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

The proposed Zoning Code amendments apply to the entire unincorporated County. Therefore, proposed small-scale wind energy systems and temporary MET towers may be located in a Very High Fire Hazard Severity Zone (Zone 4), or in a high fire hazard area with inadequate access, or in an area with inadequate water and pressure, or in proximity to land uses that have the potential for dangerous fire hazards. However, some systems may be located in areas that are completely surrounded by urbanized areas and/or irrigated lands, and where there are no adjacent wildland areas. Therefore, future small-scale wind energy systems and temporary MET towers are not anticipated to expose people or structures to a significant risk of loss, injury, or death involving hazardous wildland fires.

Construction activities associated with small-scale wind energy systems and temporary MET towers that may result in ignition sources would include vegetation clearing and piling, ground disturbance, site preparation, soil disturbances, concrete pouring and preparation, and construction and refueling. These construction activities may involve the presence of vehicles, heavy equipment, heat-generating equipment and activities, sparks from various sources, and potentially discarded cigarettes, among others, as well as use of fuels and combustible materials during construction and infrastructure installation.

The greatest risk of wildland fire would occur during construction when there is the largest amount of fuel or other flammable chemicals and increased activity, combined with a greater number of ignition sources. Potential ignition sources during construction and decommissioning 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 other human activities and waste that would increase the possibility of fire.

Implementation of the proposed project would include generation and transmission of electric current from the wind turbines. Operation of future projects may result in vegetation ignitions from equipment failure (e.g., turbine blade, braking, oil heating, lightning, nacelle, transformers, circuit breakers), transmission line arcing, and pole failure, among others.

Operation of the systems requires the on-site presence of humans, vehicles, moving wind-driven generators and related parts, and increased activity in the area.

Maintenance would include the presence of humans and vehicles as well as heat- and spark-generating equipment on occasion. Maintenance activities for small wind turbines and temporary MET towers usually occur every 1 to 3 years, or as needs arise, and may not require vehicle trips. Frequently, annual maintenance may consist of the property owner visually inspecting systems with binoculars and also checking that bearings are lubricated. If additional maintenance is required, it is anticipated that one vehicle and a small amount of equipment would access the site. It is possible that maintenance processes, such as repairs or replacements, could result in sparks or heat sources.

Potential fire risks associated with wind turbines may stem from improperly installed electrical equipment (e.g., technical defects or components in the power electronics, failure of power switches, failure of control electronics, high electrical resistance caused by insufficient electrical protection, faulty design of equipment, non-pole-mounted disconnection switches, inadequate surge protection, or inadequate grounding due to incorrect design or improper installation). Fire risks are also associated with transformers. Transformers contain cooling oil, which can be ignited by electrical arc. However, transformers use firewalls for protection and often have secondary containment to control any oil that could be released.

Wind turbines can be the source of ignitions due to short-circuits, collection line failure, turbine malfunction or mechanical failure, and lightning. When mechanical or electrical failures cause turbines to catch fire, they may burn for many hours due to the limited ability of fire suppression crews to effectively fight fires hundreds of feet above the ground. Wind-blown flaming debris from a turbine fire can ignite vegetation in the surrounding area. However, most modern turbines are equipped with lightning arresters and automatic fire detection systems. Fire suppression systems may also be installed in the wind turbine nacelle. Many small wind turbines contain fire suppression equipment installed in the nacelle in case of emergencies. As for other potential fire hazards, all components of the system are protected in the body of the turbine, which is usually made of nonflammable aluminum or steel. The blades usually consist of a reinforced fiberglass composite that is nonflammable.

Through the discretionary review process and CEQA, Traffic Control Plans may be required to be prepared, when necessary, which would ensure safe and efficient traffic flow for all traffic, including emergency responders. Traffic Control Plans would include provisions to ensure emergency vehicle passage at all times. Emergency ingress/egress is established by the County's Fire Code. Ingress/egress is necessary both for citizen evacuation and to provide access for emergency vehicles in the event of a fire or other emergency.

Furthermore, future small-scale wind energy systems and temporary MET towers would be subject to discretionary review and CEQA. CEQA would require that projects demonstrate that adequate water and pressure exists and meets the fire flow standards. Under CEQA, all future projects would be required to implement feasible mitigation measures. The potential risk of wildfire ignition and spread associated with construction and operations and maintenance of small-scale wind energy systems and temporary MET towers can be managed and pre-planned so that the potential for vegetation ignition is minimized. Pre-planning and personnel fire awareness and suppression training also results in lower probability of ignition and higher probability of fire control and extinguishment in its incipient stages. Additionally, federal, state, and County regulations exist that reduce hazards to the public and environment from wildland fires. Therefore, small-scale wind energy systems and temporary MET towers would not expose people or structures to a significant risk of loss, injury, or death involving fires because of future project locations.

Nonetheless, there is ultimately no guarantee that on a project-specific level, mitigation measures would reduce impacts to below a level of significance relative to wildfires; therefore, future projects have the potential to result in impacts related to wildland fires (**Impact HAZ-3**), and impacts would be **potentially significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

As previously discussed, the proposed Zoning Code amendments apply to the entire unincorporated County. Therefore, utility-scale ground-mounted renewable energy facilities may be located in a Very High Fire Hazard Severity Zone (Zone 4), or in a high fire hazard area with inadequate access, or in an area with inadequate water and pressure, or in proximity to land uses that have the potential for dangerous fire hazards. Utility-scale ground-mounted renewable energy facilities would most likely occur in rural areas of the County and would be subject to the greatest risk of hazards from wildfires.

Construction activities associated with utility-scale ground-mounted renewable energy facilities that may result in ignition sources would include vegetation clearing and piling, ground disturbance, site preparation, soil disturbances, concrete pouring and preparation, and construction and refueling. These construction activities may involve the presence of vehicles, heavy equipment, heat-generating equipment and activities, sparks from various sources, and potentially discarded cigarettes, among others, as well as use of fuels and combustible materials during construction and infrastructure installation. Operation of utility-scale ground-mounted facilities would introduce potential ignition sources that do not currently exist on the site, such as solar panels, trackers, transformers, capacitors, electric transmission lines, turbine blade failure, or pole failure.

The potential risk of fire ignition and spread associated with construction and operations and maintenance can be managed and pre-planned so that the potential for vegetation ignition is minimized. Pre-planning and personnel fire awareness and suppression training also results in lower probability of ignition and higher probability of fire control and extinguishment in its incipient stages. Additionally, as part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement feasible mitigation measures. CEQA would also require that projects demonstrate that adequate water and pressure exists and meets the fire flow standards. The potential risk of wildfire ignition and spread associated with construction and operations and maintenance can be managed and pre-planned so that the potential for vegetation ignition is minimized. Pre-planning and personnel fire awareness and suppression training also results in lower probability of ignition and higher probability of fire control and extinguishment in its incipient stages.

Additionally, federal, state, and County regulations exist that reduce hazards to the public and environment from wildland fires. These include, but are not limited to, the following: (1) the Natural Disaster Assistance Act, which provides assistance in the event of an emergency; (2) County Vegetation and Other Flammable Materials Ordinance, which addresses the accumulation of weeds, rubbish, and other materials that can create fire hazards, which ensures adequate defensible space to prevent wildland fires; (3) FPPs, which require the review and analysis of fire hazards in projects under discretionary review; and (4) County Fire Code, which has requirements more stringent than state requirements with regards to access roadways, building ignition-resistant construction, vegetation clearance, water supply, and locations of structures on property.

All utility-scale ground-mounted renewable energy facilities shall be designed and sited to the satisfaction of DPW and LACoFD. Setback requirements pursuant to the California Public Resources Code Section 4290 will be required. Traffic Control Plans would include provisions to ensure emergency vehicle passage at all times. Emergency ingress/egress is established by the County's Fire Code. Ingress/egress is necessary both for citizen evacuation and to provide access for emergency vehicles in the event of a fire or other emergency.

Nonetheless, there is ultimately no guarantee that on a project-specific level, mitigation measures would reduce impacts to below a level of significance relative to wildfires; therefore, future projects have the potential to result in impacts related to wildland fires (**Impact HAZ-4**), and impacts would be **potentially significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would have effects similar to those of utility-scale ground-mounted wind energy facilities. As previously discussed, the proposed

Zoning Code amendments apply to the entire unincorporated County. Therefore, utility-scale structure-mounted wind energy facilities may be located in a Very High Fire Hazard Severity Zone (Zone 4), or in a high fire hazard area with inadequate access, or in an area with inadequate water and pressure, or in proximity to land uses that have the potential for dangerous fire hazards. Utility-scale structure-mounted wind energy facilities may be located in areas that are completely surrounded by urbanized areas and/or irrigated lands, and where there are no adjacent wildland areas. Therefore, future utility-scale structure-mounted projects are not anticipated to expose people or structures to a significant risk of loss, injury, or death involving hazardous wildland fires.

As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement feasible mitigation measures. CEQA would also require that projects demonstrate that adequate water and pressure exists and meets the fire flow standards. The potential risk of wildfire ignition and spread associated with construction and operations and maintenance can be managed and pre-planned so that the potential for vegetation ignition is minimized. Pre-planning and personnel fire awareness and suppression training also results in lower probability of ignition and higher probability of fire control and extinguishment in its incipient stages.

Additionally, federal, state, and County regulations exist that reduce hazards to the public and environment from wildland fires. These include, but are not limited to, the following: (1) the Natural Disaster Assistance Act, which provides assistance in the event of an emergency; (2) County Vegetation and Other Flammable Materials Ordinance, which addresses the accumulation of weeds, rubbish, and other materials that can create fire hazards, which ensures adequate defensible space to prevent wildland fires; (3) FPPs, which require the review and analysis of fire hazards in projects under discretionary review; and (4) County Fire Code, which has requirements more stringent than state requirements with regards to access roadways, building ignition-resistant construction, vegetation clearance, water supply, and locations of structures on property.

All utility-scale structure-mounted wind energy facilities shall be designed and sited to the satisfaction of DPW and LACoFD. Setback requirements pursuant to the California Public Resources Code Section 4290 will be required. Traffic Control Plans would include provisions to ensure emergency vehicle passage at all times. Emergency ingress/egress is established by the County's Fire Code. Ingress/egress is necessary both for citizen evacuation and to provide access for emergency vehicles in the event of a fire or other emergency.

Nonetheless, there is ultimately no guarantee that on a project-specific level, mitigation measures would reduce impacts to below a level of significance relative to wildfires; therefore, future

projects have the potential to result in impacts related to wildland fires (**Impact HAZ-5**), and impacts would be **potentially significant**.

4.8.5 Level of Significance Before Mitigation

Without mitigation, the following impacts under the proposed project would be potentially significant:

Impact HAZ-1 Impacts related to glare produced from small-scale solar energy systems and utility-scale structure-mounted solar energy facilities, with the potential to result in ocular obstruction.

Impact HAZ-2 Impacts related to exposure of people or structures to a significant risk of loss, injury, or death involving fire due to future small-scale solar energy systems and/or utility-scale structure-mounted solar energy facilities being located in high fire severity zones, or due to the introduction of a dangerous fire hazard.

Impact HAZ-3 Impacts related to exposure of people or structures to a significant risk of loss, injury, or death involving fire due to future small-scale wind energy systems and temporary MET towers being located in high fire severity zones, or due to the introduction of a dangerous fire hazard.

Impact HAZ-4 Impacts related to exposure of people or structures to a significant risk of loss, injury, or death involving fire due to future utility-scale ground-mounted renewable energy facilities being located in high fire severity zones, or due to the introduction of a dangerous fire hazard.

Impact HAZ-5 Impacts related to exposure of people or structures to a significant risk of loss, injury, or death involving fire due to future utility-scale structure-mounted wind energy facilities being located in high fire severity zones, or due to the introduction of a dangerous fire hazard.

4.8.6 Mitigation Measures

The following mitigation measure (MM) would reduce potentially significant impacts associated with risk of loss, injury, or death involving fires and fire hazards:

MM HAZ-1 During the environmental review process for future discretionary permits for wind turbines, the County of Los Angeles may determine that a fire protection plan (FPP) should be prepared for review and approval. An FPP is a technical report that considers the topography, geology, combustible vegetation (fuel types), climatic conditions, and fire history of the proposed project location. The FPP

addresses the following in terms of compliance with applicable codes and regulations, including but not limited to water supply, primary and secondary access, travel time to the nearest fire station, structure setback from property lines, ignition-resistant building features, fire protection systems and equipment, impacts to existing emergency services, defensible space, and vegetation management. When impacts are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated. Examples of standard mitigation measures that are typically applied include fire suppression systems, sufficient on-site water storage, inclusion of fire management zones, and funded agreements with fire protection districts.

Infeasible Mitigation Measures

The following mitigation measure was considered in attempting to reduce impacts associated with fires within the County to below a level of significance. However, it has been determined that this measure is infeasible for the reasons provided. Therefore, this measure would not be implemented.

- Prohibit construction of all renewable energy facilities in High and Very High Fire Hazard Severity Zones. This measure would be infeasible because this prohibition throughout most of the County's jurisdiction would conflict with the project objectives to facilitate the use of renewable energy within the County, to maximize the production of energy from renewable sources, and to reduce the potential for energy shortages and outages by facilitating local energy supply.

As it cannot be concluded at this stage that impacts related to fires from all renewable energy projects allowed under the proposed project would be avoided or mitigated, impacts would remain **significant and unavoidable**. Chapter 6, Alternatives, provides a discussion of alternatives to the proposed project that would result in some reduced impacts associated with fires as compared to the proposed project.

4.8.7 Level of Significance After Mitigation

Impact HAZ-1, Impact HAZ-2, Impact HAZ-3, Impact HAZ-4, Impact HAZ-5

Although **MM HAZ-1** identified in Section 4.8.6 would reduce impacts relating to hazards and hazardous materials under the proposed project, it would not reduce impacts to less than significant. Therefore, impacts would remain **potentially significant and unavoidable**.

4.8.8 Other Public Concerns or Hazards

Recognizing there is a great deal of public interest and concern regarding potential health effects and hazards from exposure to EMFs and shadow flicker, the following discussion provides information regarding EMFs and shadow flicker as they relate to public health and safety. This discussion does not consider EMFs ~~of~~ or shadow flicker in the context of CEQA ~~and the National Environmental Policy Act (NEPA)~~ for determination of environmental impact because there is no agreement among scientists that EMFs and shadow flicker create a health risk and because there are no defined or adopted CEQA~~/NEPA~~ standards for defining health risks from EMFs and shadow flicker. As a result, the EMF and shadow flicker information is provided below for the benefit of the public and decision makers.

Electric and Magnetic Fields

Wind turbines and solar panels create EMF from the power facilities that are a part of the turbine makeup. EMF attenuates rapidly with distance from the source. The electrical wiring of the wind turbine generator is also surrounded by an electrically conductive metal cover, so any EMF levels outside of the wind turbine would be very low. Given the setbacks that future projects are required to follow, the proposed project is not anticipated to result in measurable levels in EMF at nearby residences that would result in adverse effects to public health or safety. There is inadequate or no evidence of health effects at low exposure levels. The California Public Utilities Commission implemented a decision in 1993 that, in part, implemented a number of EMF measurement, research, and education programs, and provided the direction that led to the preparation of the California Department of Health Services comprehensive review of existing studies related to EMFs from power lines and associated potential health risks. The California Public Utilities Commission stated that, "at this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences… As stated in the rulemaking initiating this proceeding, at this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences" (CPUC 2006).

Stray voltage could occur if the electrical equipment in the turbines or solar panels is not maintained properly. Induced current or stray voltage has the potential for adverse health effects if not properly grounded. As part of the regular operations and maintenance measures of future utility-scale renewable energy projects, turbines and solar panels will be examined during annual maintenance inspections by maintenance staff to confirm that they are properly grounded and that there are no stray voltage issues through the life of the project. Therefore, no health effects would be anticipated to occur from stray voltage.

The proposed project may also impact communication signals due to EMF in two ways: (1) the wind turbines, solar panels and their associated transmission lines may generate electromagnetic noise, which can interfere with telecommunications services such as radar, microwave, television, and radio transmissions; or, more commonly, (2) the wind turbines or solar panels would create physical obstructions that distort communications signals. The types of communications systems that may be affected include microwave systems, off-air television broadcast signals, land mobile radio operations, and mobile telephone services. Future wind turbine and solar projects would comply with U.S. Federal Communications Commission regulations and therefore would minimize electromagnetic noise (e.g., impacts to radar, microwave, television, and radio transmissions).

Shadow Flicker

There is currently no published scientific evidence to positively link wind turbines with adverse health effects. The majority of documentation related to non-seizure health impacts due to shadow flicker consists of informal testimonials given by residents or drivers on roadways in proximity to a wind turbine. These testimonials cite headaches, vertigo, nausea, blinding effects, disorientation, loss of balance, and increased levels of stress and anxiety as symptoms directly related to wind turbine shadow flicker. These testimonials are primarily available on websites often cited by anti-wind advocates rather than formal medical literature. Some complaints regarding these symptoms do appear in more formal materials, but are merely reported and are not studied or discussed in any detail. Several of these sources state that complaints of headaches and other similar symptoms are highly, but not perfectly, correlated with annoyance complaints. To date, the available published, peer-reviewed literature states that no studies or scientific evidence links shadow flicker to adverse health impacts.

Shadow flicker from wind turbines does not cause seizures in persons with photosensitive epilepsy. Data from the Epilepsy Foundation indicates that although the frequency of flashing light that is most likely to cause seizures varies from person to person, generally, the frequency of flashing lights most likely to trigger seizures is between 5 and 30 hertz (Hz) (hertz refers to flashes per second). Large modern three-bladed wind turbines generally rotate at approximately 19 revolutions per minute (rpm) or less. Even assuming a slightly faster rotation speed of 20 rpm, the blade passing frequency is approximately 1 Hz (20 rev/min × min/60 sec × 3 blades), is well below the first baseline for the critical frequency of 5 Hz.

A concern that is occasionally raised is that shadow flicker occurring on a roadway could distract drivers and cause accidents. In order to obtain a driver's license, motorists are generally evaluated through a road test on their ability to react appropriately to the various situations they encounter. Shadows on the road way or road side distractions are a common occurrence. A whole segment of the advertising industry has been developed that takes

advantage of the passing motorist attention. This includes digital billboards, or commercial electronic-variable message signs, which are allowed under the national Outdoor Advertising Act. Recent studies have not identified any additional risk caused by such signs. Thus, it is highly unlikely that wind turbines or their fleeting shadows will pose any undue risks due to attention- demanding qualities.

Shadows on roadways can be caused by nearby trees or buildings, or the Earth's terrain itself. A car passing through shadows caused by anything can experience shadow flicker at very high frequencies dependent on vehicle speed and the object(s) causing the shadow. Wind turbines, a single passing cloud, or an airplane can cause moving shadows on roadways. Additionally, driving by hybrid poplar trees used as windbreaks or a series of palm trees as landscaping enhancements could cause the same effect. Regardless of the source of the shadow or any other potential change that a driver notices gradually or suddenly, it is generally the responsibility of the motorist to maintain control of their vehicle in the face of any situation they encounter. A moving car would pass quickly through any shadow on a road caused by a wind turbine, and therefore any potential for distraction would be remote. Because vehicles on roadways are not stationary objects, it is not appropriate to include roadways as part of a shadow flicker analysis, as shadow flicker is commonly defined as alternating changes in light intensity at a given stationary location.

The National Highway Traffic Safety Administration describes driver distraction as something that could present a serious and potentially deadly danger, and identifies various forms of distracted driving, including cell phone use, texting, drinking, talking with passengers, and using in-vehicle technologies and portable electronic devices, along with less obvious forms of distractions, including daydreaming or dealing with strong emotions. Current research involving motor vehicle accidents have highlighted the increased risk of accident for drivers who focus on attention-diverting activities while driving (cell phone use, map reading, etc.) and have not identified shadow flicker or shadows in general as a source of driver distraction sufficient to increase the risk of accidents.

The frequency of occurrence of shadow flicker at a given receptor tends to decrease with increasing distance between turbine and receptor. Additionally, the intensity of shadow flicker at a given receptor also decreases with increasing distance between turbine and receptor because the shadow cast by the rotor blade decreases in size as the distance from the turbine increases. The combination of these two factors means that even for receptors that are in a theoretical path of a shadow cast from a proposed turbine, a discernible shadow will not be realized due to the distance between many of these receptors and the proposed turbines.

For receptors which that have the potential to experience shadow flicker from wind turbines, the number of experienced shadow flicker hours is generally small for a number of reasons, including the daily change in the sun's path and cloud cover, the fact that turbines do not operate 100% of the time over the course of the year, and typical setback requirements

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8124-01

FIGURE 4.8-1

County of Los Angeles Airports and Airport Influence Areas

Los Angeles County Renewable Energy Ordinance EIR

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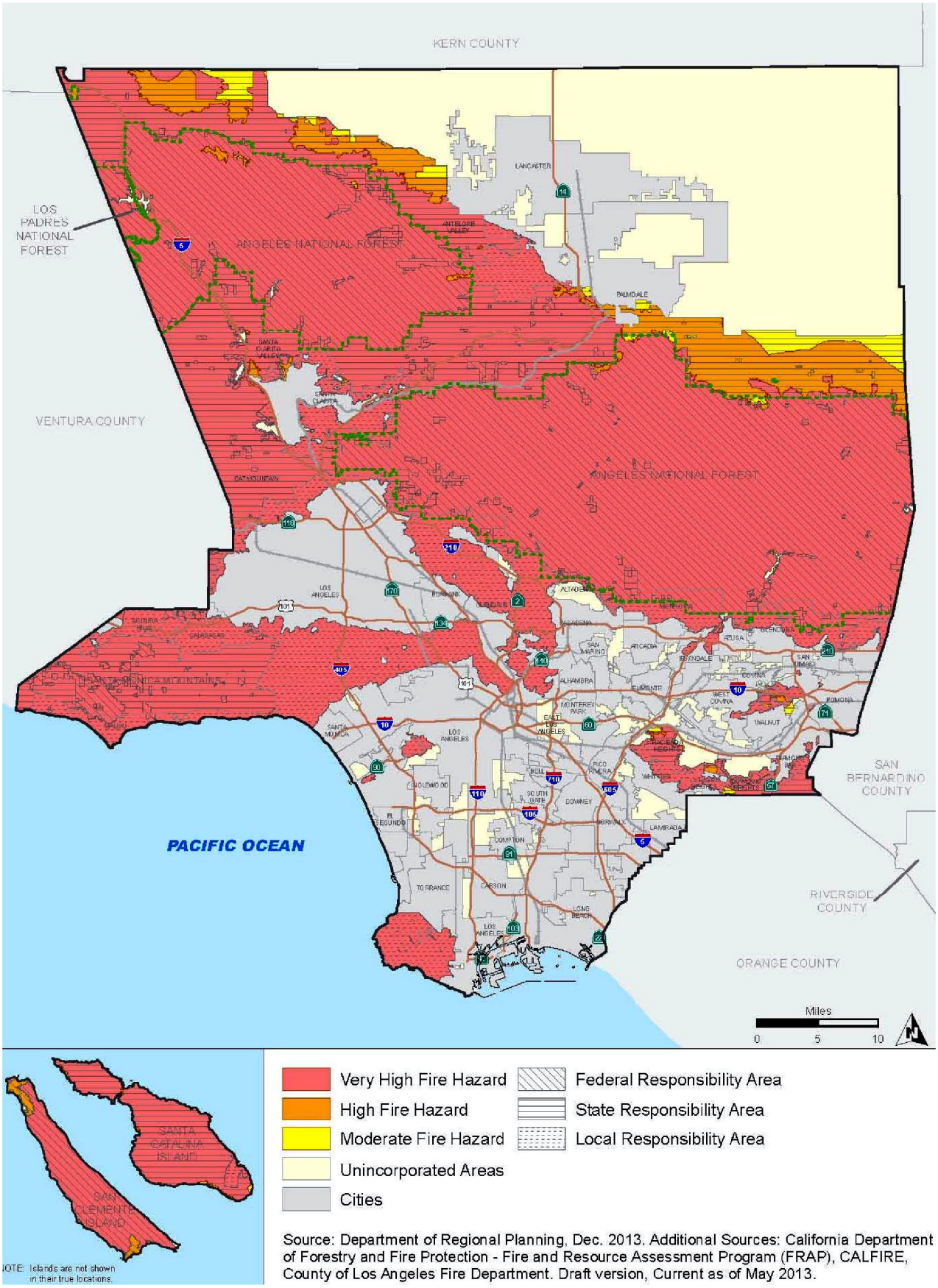

Source: Department of Regional Planning, Dec. 2013. Additional Sources: California Department of Forestry and Fire Protection - Fire and Resource Assessment Program (FRAP), CALFIRE, County of Los Angeles Fire Department. Draft version, Current as of May 2013.

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FIGURE 4.8-2

Fire Hazard Severity Zone Policy Map

Los Angeles County Renewable Energy Ordinance EIR

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4.9 HYDROLOGY AND WATER QUALITY

This section assesses general surface water hydrology and water quality conditions in unincorporated County of Los Angeles (County) and identifies potential hydrology and water quality impacts that could result from implementation of the proposed project. Dudek reviewed and considered the ~~2014~~ 2015 Draft General Plan Update and Draft and Final Environmental Impact Report (EIR); however, since the ~~2014~~ 2015 Draft General Plan Update and ~~Draft~~ associated EIR have not been ~~approved and~~ adopted by the County Board of Supervisors, certain background information discussed herein is used for informational purposes only.[1]

4.9.1 Existing Conditions

Natural hydrologic areas within the County include marshes, lakes, ponds, streams, sloughs, and seasonal wetlands. Artificially created/developed areas within the County may include stormwater detention basins and other facilities or structures, flood control channels, street drains and gutters, roadside ditches, and road ruts. The overall geographic setting of the County results in a number of physiographic and environmental characteristics. A discussion of water features, resources, and hydrologic hazards and concerns is provided as follows.

Hydrologic Regions

A hydrologic region is an area drained by a river system, a closed basin, or a group of streams that form a coastal drainage area. The County is split between two hydrologic regions: the South Coast Region and the Lahontan Region, with a small portion in the northwest corner of the County located in the Tulare Lake Hydrologic Region (see Figure 4.9-1, Hydrologic Regions) (County of Los Angeles 2014~~a~~). The portion of the Lahontan Region that is located in the County is the Antelope Valley Planning Area. The portion of the South Coast Region that is located in the County comprises all other areas of the County.

In the County, the water quality of each of these hydrologic regions is regulated by a different regulatory agency, called a Regional Water Quality Control Board (RWQCB). RWQCBs implement both state- and federally mandated water quality regulations. The South Coast Region is regulated by the Los Angeles RWQCB, the Lahontan Region is regulated by the Lahontan RWQCB, and the Tulare Lake Region is regulated by the Central Valley RWQCB. The boundaries of the state's nine RWQCBs do not always correspond directly with the boundaries of its 10 hydrologic regions, but in the County the boundaries roughly coincide.

[1] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

Watersheds

Watersheds are defined as areas of land where the water that is under it or that drains off it flows to the same place. There are six major watersheds within the County, some of which are located solely within the County and some of which have boundaries that extend beyond the County. The watersheds are depicted on Figure 4.9-2, Watersheds and Surface Water Bodies, and are listed as follows: the Antelope Valley watershed, the Santa Clara River watershed, the Los Angeles River watershed, the Santa Monica Bay coastal watersheds, the Dominguez Channel and Los Angeles Harbor watershed, and the San Gabriel River watershed (County of Los Angeles ~~2014b~~2015, Appendix E, Part VI, Watersheds).

Stormwater

Stormwater is created when a precipitation event leads to collection of water in pools and rivulets on either pervious or impervious surfaces. When sufficient water collects, it flows over the land, creating stormwater runoff. In natural areas, stormwater runoff generally flows towards streams, rivers, lakes, or coastal waters and also infiltrates through the soil into groundwater. In developed areas, stormwater is generally either retained on site, infiltrated through pervious areas such as bioswales and gardens, or directed into stormwater drainage systems. Stormwater collection is more difficult in developed areas and runoff is exacerbated, as pavement and structures generally do not allow for stormwater infiltration into the soil. In undeveloped or pervious areas, runoff occurs when the soil approaches saturation and no longer absorbs the precipitation. Stormwater runoff often becomes polluted by sediment and toxic contaminants, particularly in developed areas, where it flows over streets and sidewalks. Urban runoff conveyed through municipal storm drain systems is one of the causes of poor water quality at discharge locations of urban areas.

Stormwater Drainage

The sanitary sewers and the stormwater/flood control facilities in the County are separate. Stormwater is either retained on parcels, infiltrated into the ground, or directed into a storm drain system. Stormwater runoff in unincorporated areas of the County is regulated by the National Pollutant Discharge Elimination System (NPDES) permit, the Standard Urban Stormwater Mitigation Plan, and the County's stormwater ordinance, each of which are described below in Section 4.9.2. These permits and plans regulate how stormwater runoff emanating from a particular plot of land or development is to be handled and whether it will be retained on site, infiltrated, or directed into an existing or planned storm drain system. The County Department of Public Works (DPW) determines the remaining capacity of existing or planned storm drain systems and informs project applicants of the capacity (County of Los Angeles 2014~~a~~).

Storm Drain System

Discharges and runoff in each of the County's watersheds flow toward a variety of natural and engineered drainage channels. Principal drainages throughout the County are as follows:

- ***Los Angeles River:*** A drainage channel that flows from the San Fernando Valley Planning Area to Long Beach, which is in the Gateway Planning Area.
- ***San Gabriel River:*** A drainage channel that extends from the San Gabriel Mountains through the West and East San Gabriel Valley Planning Areas and the Gateway Planning Area.
- ***Rio Hondo:*** A drainage channel in the Los Angeles Basin that connects the San Gabriel River to the Los Angeles River.
- ***Dominguez Channel:*** The main drainage within the Dominguez Watershed, which approximately overlaps the South Bay and Metro Planning Areas.
- ***Santa Clara River:*** The main drainage channel in the Santa Clarita Valley Planning Area.
- ***Antelope Valley Watershed:*** The majority of storm drains within the Antelope Valley Planning Area discharge to vacant land (County DPW 2014a).

Water Quality

More than a dozen different stormwater and wastewater pollutants, including metals, nutrients, indicator bacteria, organics, pesticides, trash, and other contaminants, are found in water bodies in the County in amounts significantly above established water quality standards. Sources of this pollution can be described through two categories: point sources and non-point sources.

Point Sources

Point sources are well-defined locations at which pollutants flow into water bodies (discharges from wastewater treatment plants and industrial sources, for example). These sources are controlled through regulatory systems including permits issued by the RWQCBs under the NPDES program (see Section 4.9.2).

Non-Point Sources

Non-point sources of pollutants are typically derived from project site runoff caused by rain or irrigation and have been classified by the U.S. Environmental Protection Agency (EPA) into one of the following categories: agriculture, urban runoff, construction, hydromodification, resource extraction, silviculture (forest cultivation), and land disposal. Non-point source pollution is not addressed by the same regulatory mechanisms as those used to control point sources. Instead, the California State Water Resources Control Board (SWRCB) implements a Non-Point Source

Program to minimize non-point source pollution. This program describes a three-tiered approach including the voluntary use of best management practices (BMPs), the regulatory enforcement of the use of BMPs, and effluent limitations. Each RWQCB implements the least-restrictive tier until more stringent enforcement is necessary (County of Los Angeles 2014~~a~~).

Hydromodification

Hydromodification is one of the leading sources of impairment in streams, lakes, estuaries, aquifers, and other water bodies in the country. Three major types of hydromodification activities—channelization and channel modification, dams, and stream bank and shoreline erosion—change a water body's physical structure as well as its natural function. These changes can cause problems such as changes in flow, increased sedimentation, higher water temperature, lower dissolved oxygen, degradation of aquatic habitat structure, loss of fish and other aquatic populations, and decreased water quality. Proper management of hydromodification activities to reduce non-point source pollution in surface and groundwater is important.

Impaired Water Bodies

Section 303(d) of the federal Clean Water Act (U.S. Code, Title 33, § 1251 et seq.) requires states to identify waters that do not meet water quality standards after applying certain required technology-based effluent limits. These are referred to as "impaired" waterbodies. States are required to compile this information in a list and submit the list to the EPA for review and approval. The 2010 List of Water Quality Limited Segments includes 127 water bodies that are located in the County. Of these impaired water bodies, 51 are coastal shorelines, 10 are bays, 40 are rivers or streams, 18 are lakes, 3 are tidal wetlands, and 5 are estuaries (SWRCB 2010). For each impaired water body, states are required to develop a total maximum daily load (TMDL). This is the amount of pollution that a water body can receive while remaining in compliance with water quality standards. TMDLs have been established or are being established for the County's 127 impaired water bodies.

Areas of Special Biological Significance

The SWRCB designates ocean areas that require protection from an undesirable alternation in natural water quality as Areas of Special Biological Significance (ASBS). There are 34 areas designated as ASBS by SWRCB. Of those, the following six are located within the jurisdiction of the County:

- Laguna Point to Latigo Point (ASBS-24) – Two-thirds of this ASBS lies along the coastline of Los Angeles County; the remainder lies along the coastline of Ventura County
- Santa Catalina Island – Subarea One, Isthmus Cove to Catalina Head

- Santa Catalina Island – Subarea Two, North End of Little Harbor to Ben Weston Point
- Santa Catalina Island – Subarea Three, Farnsworth Bank Ecological Reserve
- Santa Catalina Island – Subarea Four, Binnacle Rock to Jewfish Point
- San Clemente Island

Federal and state policies prohibit the discharge of pollutants into areas identified as ASBS (County of Los Angeles ~~2014b~~2015, Chapter 9; 2014a).

Typical Contaminants

Descriptions of typical contaminants that have the potential to effect groundwater, surface water, and stormwater quality are presented in the following paragraphs.

Metals can impact surface water quality by accumulating in sediments and fish tissues. This poses risks of toxicity such as lowering the reproductive rates and life spans of aquatic animals and animals up the food chain. Metals can also alter photosynthesis in aquatic plants and form deposits in pipes. Metals in urban runoff can result from automobile use, industrial activities, water supply infrastructure corrosion, mining, or pesticide application. Atmospheric deposition can also contribute metals to waterbodies.

Petroleum products such as oil and grease are characterized as high-molecular-weight organic compounds. Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high-molecular-weight fatty acids. Introduction of these pollutants to water bodies is typical due to the widespread use and application of these products in municipal, residential, commercial, industrial, and construction areas. Elevated oil and grease content can decrease the aesthetic value of a waterbody, as well as its water quality. Although methyl tertiary butyl ether (MTBE) is currently outlawed, previous uses of petroleum products can be a source of contamination. Current use regulations for volatile organic compounds (VOCs) ensure these chemicals are not used in amounts that would impact groundwater. Similarly, residual concentrations from petroleum products are a concern for water quality.

Increased amounts of **sediments,** greater than the amount that enters the water system by natural erosion, can cause many adverse impacts on aquatic organisms, water supply, and wetlands. Sedimentation can decrease transmission of light, which affects plant production and leads to loss of food and cover for aquatic organisms. It can change behavioral activities (nesting, feeding, mating) and adversely affect respiration, digestion, and reproduction. Contaminants and toxic substances can also be transported in sediments. Sediments can damage water treatment equipment, increasing treatment costs. They can reduce reservoir volume and flood storage and increase peak discharges.

Total dissolved solids (TDS) refers to the total concentration of all minerals, salts, metals, or cations/anions (positive/negative charged ions) that are dissolved in water. TDS is composed of inorganic salts (principally calcium, magnesium, potassium, sodium, bicarbonate, carbonate, chloride, and sulfate), and small amounts of organic matter that are dissolved in water. The primary source of TDS in groundwater is the natural dissolution of rocks and minerals, but septic tanks, agricultural runoff, and stormwater runoff also contribute. Increased salts in regional freshwater resources from mining, urban runoff, and construction can create stressful environments and even destroy habitat and food sources for wetland animals in aquatic and wetland habitats, as well as favoring salt-tolerant species, reducing the quality of drinking water, and potentially causing skin or eye irritations in people.

Groundwater

Groundwater Basins

When precipitation and surface water infiltrate naturally into the ground, they typically travel first through an unsaturated soil zone until they reach the water table, which is the layer where the soil is saturated. This layer of soil saturation is called a groundwater basin, or aquifer. Aquifers can hold millions of acre-feet of water and extend for miles. The County is underlain by numerous groundwater basins, which are listed in Table 4.9-1, Groundwater Basins. Except during times of drought, groundwater extraction accounts for nearly one-third of the water usage in the unincorporated areas. In rural areas, many households depend solely on private wells that tap into local groundwater sources.

Supply and Recharge

In the more urbanized areas of the County, the natural groundwater recharge process is hampered by compacted soils and impervious surfaces associated with urbanization and development. In the open space areas of the County (such as the Antelope Valley Planning Area), where substantial percolation can occur, water demand is such that annual precipitation and groundwater recharge operations are typically not sufficient for basin recharge.

In an effort to mitigate groundwater depletion, water agencies in the County have developed strategies to recharge groundwater artificially. One strategy involves purchasing water imported from outside the County or using recycled water and injecting it or allowing it to percolate into groundwater basins. A second option involves placing imported water at spreading grounds, where it percolates into groundwater basins.

The County Flood Control District (LACFCD) engages in a variety of activities that help recharge groundwater basins. These activities include diverting stormwater or treated recycled wastewater into regional spreading grounds. The majority of this recycled water is provided by

the County Sanitation Districts, with smaller amounts provided by the Water Replenishment District of Southern California, the City of Los Angeles, and the West Basin Municipal Water District (Count of Los Angeles 2014b, Chapter 9).

Antelope Valley Groundwater Cases

The Antelope Valley Groundwater Basin is comprised of the upper principal aquifer that yields most of the current groundwater supplies, and the lesser used lower deep aquifer. Groundwater levels in some areas have declined significantly since the early 1900s due to over-extraction. Groundwater quality is excellent within most of the principal aquifer but degrades toward the northern portion of the dry lakes areas.

In approximately 1999, agricultural interests in the Antelope Valley initiated litigation in state court seeking to determine certain rights to groundwater. In approximately 2005, certain public water supplies, including LACWD 40, filed a cross-action seeking an adjudication of groundwater rights within the basin. Other agencies and parties have filed separate actions concerning groundwater rights in the Antelope Valley Area of Adjudication (AVAA). The Court has coordinated and consolidated the actions in one action in Los Angeles Superior Court. Four phases of the trial have been completed in the adjudication during which the court has defined the adjudication area boundary (i.e., the AVAA) and determined that the total safe yield of the AVAA is 110,000 AFY, that the AVAA has been in a state of overdraft for over 50 years, and the current pumping by the parties exceeds the safe yield of the AVAA. The action will result in a judgment (by trial and/or stipulation) containing a final allocation of groundwater rights and a long-term groundwater management system for the AVAA. It is unknown how long it will take to complete the adjudication litigation.

As stated in the Antelope Valley Integrated Regional Water Management Plan 2013 Update, "Since long-term recharge is expected to be stable, it is anticipated that groundwater pumping, and hence supply, will be reliable even in short-term and multiple year droughts." Thus groundwater is considered a reliable supply for the Antelope Valley Region. However, the pending adjudication will affect how much groundwater can physically be pumped in the Antelope Valley Region in the future to insure that AVAA groundwater is not overdrafted. It is important to note that the supplemental yield from imported water return flows depends upon demand and may fluctuate with changes in demand. The imported water return flow estimates are meant to indicate a sense of the impact of return flows to the AVAA groundwater basin.

The Willis Class/Non-Pumpers consists of owners of properties within the AVAA who have never pumped water on those properties. Based on the July 13, 2010 Willis Class Stipulation of Settlement (Case No. BC 364553), the settling parties agree that the settling defendants collectively have the right to product up to 15% of the basin's federally adjusted native safe yield

free of any replacement assessment, and the Willis Class members have an overlying right to a correlative share of 85% of the federally adjusted native safe yield for reasonable and beneficial uses on their overlying land free of any replacement assessment. The Wood/Small Pumper Class consists of owners of properties within the AVAA who have pumped relatively modest amounts of water (pumping less than 25 acre-feet per year on property during any year from 1946 to the present) on those properties. During the Court's July 18, 2011 Statement of Decision Phase Three Trial (Case No. BC391869), the Court set the total basin safety yield at 110,000 acre-feet per year. The Wood Class Member household is entitled to the reasonable and beneficial domestic use of up to 3 acre-feet per year on the household's overlying land. However, as previously indicated, the adjudication is not complete and a judgment has not been entered so the above information could change and the parties will be directed to the final judgment in the adjudication for the actual water availability.

Water Hazards

Flooding

Flooding in the County can be induced by earthquakes or by intense rainfall. Storm events that are intense and frequent have been known to cause mudflow and flood hazards that have led to the destruction of property, injuries, and deaths in the County (County of Los Angeles ~~2014b~~2015, Chapter 12).

The unincorporated County includes floodplains that are designated by the Federal Emergency Management Agency (FEMA) and by the California Department of Water Resources. FEMA designates 100-year and 500-year floodplains as part of its National Flood Insurance Program (NFIP). In the unincorporated County, the majority of FEMA-designated floodplains are located in the Antelope Valley. Unincorporated areas of the Santa Clarita Valley also contain some FEMA-designated floodplains, concentrated around the Santa Clara River and its tributaries (County of Los Angeles ~~2014b~~2015, Figure 12.2). The 100-year and 500-year floodplains within the County are shown on Figure 4.9-3, Flood Hazard Zones.

The California Department of Water Resources is currently creating maps of floodplains that are not covered under FEMA's NFIP maps. The California Department of Water Resources has undertaken the Awareness Floodplain Mapping project, which aims to identify all pertinent flood hazard areas by 2015. Preliminary maps show that California Department of Water Resources-designated Awareness Floodplain areas in the unincorporated County are concentrated in the Antelope Valley (County of Los Angeles ~~2014b~~2015, Figure H.1).

Dams, Reservoirs, and Levees

There are 103 dams in the County that hold billions of gallons of water in reservoirs. Dams can pose a hazard to life and property in the event that seismic activity compromises dam structures and triggers flooding. There are also numerous levees throughout the County. Since 1928, two dam failures and one near failure have occurred in the County (County of Los Angeles ~~2014b~~2015, Chapter 12). Figure 4.9-4, Dam and Reservoir Inundation Areas, shows dams, reservoirs, and the areas that have the potential to experience flooding in the event that the dam or reservoir is breached. The majority of these inundation areas are located in the urbanized areas of the unincorporated urban islands (County of Los Angeles ~~2014b~~2015, Figure 12.4).

Tsunamis

A tsunami is a very large ocean wave caused by an underwater earthquake, volcanic eruption, or submarine landslide. Tsunamis can cause flooding to coastlines and inland areas less than 50 feet above sea level and within 1 mile of the shoreline. The travel time for a locally generated tsunami, from initiation at the source to arrival at coastal communities, can be 5 to 30 minutes.

The likelihood for the catastrophic inundation of low-lying coastal areas as a result of a tsunami is low. The areas within the unincorporated County that have the potential to be susceptible to tsunami hazards consist of limited areas within the Santa Monica Mountains and Westside Planning Areas. Within the Santa Monica Mountains Planning Area, the tsunami inundation areas, as mapped by the California Geological Survey, include Topanga State Beach and Topanga County Beach, east and west of the intersection of Pacific Coast Highway with Topanga Canyon Boulevard, and Leo Carrillo State Beach at the west end of Los Angeles County. Within the Westside Planning Area, the tsunami inundation area extends to just inland of the inland end of the marina in Marina del Rey, which is approximately 1.6 miles inland from the shoreline (DOC 2014).

Seiches

A seiche is a surface wave in a completely or partially enclosed body of water, such as a lake, a reservoir, or an aboveground water storage tank. Areas located along the shoreline of inland water bodies are susceptible to inundation by a seiche. High winds, seismic activity, or changes in atmospheric pressure are typical causes of seiches. The size of a seiche and the affected inundation area is influenced by a variety of factors, including size and depth of the water body, elevation, source, and, if human made, the structural condition of the body of water in which the seiche occurs.

In the unincorporated County, there are numerous aboveground water storage tanks that could create flooding in the event that strong ground shaking were to cause structural damage to the

tank. Sloshing water can lift a water tank off its foundation or break the pipes leading to the tank. The likelihood that an aboveground storage tank would break due to ground shaking is reduced through compliance with standards for steel and reinforced-concrete tank design issued by the American Water Works Association and the California Department of Public Health.

Mudflow

Mudflows, also known as debris flows, are shallow water-saturated landslides that travel rapidly down slopes, carrying rocks, brush, and other debris. Areas within the County that are particularly susceptible to mudflow generally include canyons and areas along the bases of hillsides. Because the majority of the County's Planning Areas contain hillsides and canyons, mudflow has the potential to occur in most of the Planning Areas. The potential for mudflow to occur increases after a wildfire, as slopes become more susceptible to erosion. The LACFCD operates debris basins and inlets above many foothill communities to prevent mudflows from affecting the communities.

4.9.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Water Pollution Control Act – Clean Water Act

Increasing public awareness and concern for controlling water pollution led to enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law is commonly known as the Clean Water Act. The Clean Water Act established basic guidelines for regulating discharges of pollutants into the waters of the United States. The act requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the Clean Water Act (U.S. Code, Title 33, § 1251 et seq.) in the following ways:

- ***Section 401.*** Section 401 requires an application for a federal permit, such as for the construction or operation of a facility that may result in the discharge of a pollutant, to obtain certification of those activities from the state in which the discharge originates. This process is known as water quality certification. For projects in the County, the applicable RWQCB issues Section 401 permits.
- ***Section 402.*** Section 402 established the NPDES to control water pollution by regulating point sources that discharge pollutants into waters of the United States. In California, the EPA has authorized the SWRCB as the permitting authority to implement the NPDES program. In general, the SWRCB issues two baseline general permits: one for industrial discharges and one for construction activities. Phase I of the NPDES program requires

permits to be issued for medium and large municipal separate storm sewer systems (MS4s) and construction sites of 1 acre or more. The Phase II rule expanded this NPDES program to require operators of small MS4s to enforce programs to reduce pollutants in post-construction runoff to storm drain systems from new development or redevelopment projects resulting in land disturbance of 1 acre or more.

- ***Section 404.*** Section 404 established a permitting program to regulate the discharge of dredged or filled material into waters of the United States. The definition of waters of the United States includes wetlands adjacent to national waters. This permitting program is administered by the U.S. Army Corps of Engineers and enforced by the EPA.
- ***Section 303(d).*** Under Section 303(d), the SWRCB is required to develop a list of water quality limited segments for jurisdictional waters of the United States. The RWQCBs are responsible for establishing priority rankings and developing action plans, referred to as TMDLs, to improve water quality of water bodies included in the 303(d) list. The most recent 303(d) list approved by the EPA is from 2010. The list includes pollutants causing impairment to receiving waters or, in some cases, the condition leading to impairment.

Federal Maximum Contaminant Levels

To protect public health related to known contaminants in drinking water supplies, the EPA sets the highest level of a contaminant, or maximum contaminant levels (MCLs), for a range of contaminants, including microorganisms, disinfectants and disinfection byproducts, and chemicals, among others. There are two tiers: primary and secondary standards. National Primary Drinking Water Regulations (primary standards) are enforceable standards. National Secondary Drinking Water Regulations (secondary standards) are guidelines related to contaminants that could cause aesthetic (such as taste, odor, or color) or cosmetic effects (such as skin or tooth discoloration).

National Flood Insurance Act

The National Flood Insurance Act of 1968 established the NFIP to provide flood insurance within communities that were willing to adopt floodplain management programs to mitigate future flood losses. The act also required the identification of all floodplain areas within the United States and the establishment of flood-risk zones within those areas. FEMA is the primary agency responsible for administering programs and coordinating with communities to establish effective floodplain management standards. FEMA is responsible for preparing Flood Insurance Rate Maps (FIRMs) that delineate the areas of known special flood hazards and their risk applicable to the community.

National Flood Insurance Reform Act

The National Flood Insurance Reform Act of 1994 resulted in major changes in the NFIP. The act, which amended the Flood Disaster Protection Act of 1973, provided tools to make NFIP more effective in achieving its goals of reducing the risk of flood damage to properties and reducing federal expenditures for uninsured properties that are damaged by flood. The National Flood Insurance Reform Act requires mitigation insurance and establishes a grant program for state and community flood mitigation planning projects.

Cobey-Alquist Floodplain Management Act

Under the Cobey-Alquist Floodplain Management Act, local governments are encouraged to plan, adopt, and enforce land use regulations for floodplain management to protect people and property from flooding hazards. This act also identifies requirements that jurisdictions must meet to receive state financial assistance for flood control.

State

State Maximum Contaminant Levels

As part of the California Safe Drinking Water Act, the Department of Health Services sets primary and secondary standards for drinking water supplies. MCLs set by the Department of Health Services are either as stringent or more stringent than federal MCLs.

Total Maximum Daily Loads

The purpose of a TMDL is to attain water quality objectives and restore beneficial uses for impaired water bodies under Section 303(d) of the Clean Water Act. TMDLs represent a strategy for meeting water quality objectives by allocating quantitative limits for point and non-point pollution sources. A TMDL is the maximum amount of a pollutant of concern that the water body can receive and still attain water quality objectives.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Cal. Water Code, § 13000 et seq.) is California's water quality control law. The Porter-Cologne Water Quality Control Act establishes the SWRCB as the agency that regulates and oversees state water rights and water quality policy. The state is divided into nine RWQCBs that carry out the regulation and protection of water quality in each water quality region. Each RWQCB is required to formulate and adopt a plan that designates beneficial uses of the region's water and identifies water quality conditions and issues. These plans are generally called Water Quality Control Plans or Basin Plans.

The County includes portions of three RWQCB jurisdictions. The Los Angeles RWQCB (Region 4) oversees water quality in unincorporated urban islands. The Lahontan RWQCB (Region 6) oversees water quality in the Antelope Valley. A small portion of the northwest corner of the County is within the Central Valley Region (Region 5), which is overseen by the Central Valley RWQCB. These agencies are responsible for preparing and implementing the Basin Plan and for implementing the federally mandated NPDES program. Basin Plans, NPDES permits, and the associated stormwater pollution prevention plans (SWPPPs) are further characterized as follows.

- ***Basin Plans:*** Each RWQCB prepares and adopts a Basin Plan. These plans identify beneficial uses for inland and coastal surface waters and establish water quality objectives and implementation programs and policies to protect those uses. The objectives detailed in Basin Plans range from controlling the amount of oxidized ammonia in inland surface waters to regulating the mineral quality of ground waters. The RWQCBs achieve the identified water quality objectives through implementation of waste discharge requirements. These water quality objectives are achieved by employing three strategies for addressing water quality issues: control of point source pollutants, control of non-point source pollutants, and remediation of existing contamination.

  In 1994, the Los Angeles RWQCB adopted a comprehensive Basin Plan applicable to the Los Angeles Region (encompassing Ventura and Los Angeles Counties, excluding the Antelope Valley). The Antelope Valley area of Los Angeles County is under the jurisdiction of the Lahontan RWQCB. The Lahontan Basin Plan took effect in 1995, replacing three earlier plans. The Basin Plan for the Central Valley Region was adopted in 1998. Since their adoption, these Basin Plans have been amended numerous times (County of Los Angeles ~~2014b~~2015, Chapter 9; Central Valley Region 2011).

- ***NPDES Permits:*** Permits are issued to dischargers by the appropriate RWQCB and may set discharge limitations or other discharge provisions. These permits require dischargers to comply with measures to minimize or prevent erosion and reduce the volume of sediments and pollutants in a project's runoff.

- ***Stormwater Pollution Prevention Plans:*** The SWRCB issued a statewide general NPDES permit for stormwater discharges from construction sites in 2012 (Order No. 2012-0006-DWQ; NPDES No. CAS000002), called the Construction General Permit. Under this permit, discharges from construction sites that are 1 or more acres in size require obtaining an individual NPDES permit or coverage by the Construction General Permit. Obtaining coverage by the Construction General Permit involves filing a Notice of Intent with the SWRCB and developing and implementing a SWPPP. SWPPPs must be prepared prior to the start of grading and must list BMPs to reduce and filter stormwater runoff. SWPPPs must also include a visual and a chemical monitoring program for detection of pollutants. If the site will be discharging directly into a water body that is

listed on the state's 303(d) list of impaired waters, the SWPPP must also include a monitoring plan for discharges into these waters.

Streambed Alteration Agreement

Sections 1601–1603 of the California Fish and Game Code require an agreement between the California Department of Fish and Wildlife and a public agency proposing to substantially divert or obstruct the natural flow or effect changes to the bed, channel, or bank of any river, stream, or lake. The agreement is designed to protect the fish and wildlife values of a river, lake, or stream.

Local

Los Angeles County Code – Low Impact Development Ordinance

Title 12, Chapter 12.84 of the Los Angeles (L.A.) County Code is the Low Impact Development (LID) Ordinance. This ordinance is designed to promote sustainability and improve the County's watersheds by preserving drainage paths and natural water supplies in order to retain, detain, store, change the timing of, or filter stormwater or runoff. All projects would need to meet applicable water quality requirements, including LID, as determined by the County.

Compliance with the LID Ordinance involves the following LID standards:

- Mimic undeveloped stormwater runoff rates and volumes in any storm event up to and including a 50-year flood event
- Preventing pollutants of concern from leaving the development site in stormwater as the result of storms, up to and including a water quality design storm event (this refers to the flow-rate based design storm events for the water quality BMPs identified in the NPDES Municipal Stormwater Permit for the County)
- Minimizing hydromodification impacts on natural drainage systems

Project design features and BMPs implemented to comply with the LID Ordinance could include the following:

- On-site infiltration, bioretention, or rainfall harvest of excess runoff
- On-site storage or reuse of excess runoff (L.A. County Code, Chapter 12.84)

Los Angeles County Code – Stormwater and Runoff Pollution Control

Title 12, Chapter 12.80 of the L.A. County Code prohibits certain discharges to the storm drain system, such as non-stormwaters that are not authorized by an NPDES permit, pesticides in concentrations that exceed water quality objectives established by a regional board, and sanitary or septic waste or sewage (L.A. County Code, Title 12, §§ 12.80.410–12.80.440).

Los Angeles County Code – Erosion and Sediment Control Plans

Title 26, Appendix J of the L.A. County Code is the County Grading Code. This code includes regulations for erosion control and water quality for grading operations. NPDES compliance is required for all projects within the unincorporated County. Additionally, all active grading projects with grading proposed during the rainy season (October 15 to April 15) require an erosion and sediment control plan (ESCP). Grading permits cannot be issued until an ESCP is approved or details for erosion control are included in the grading plan. ESCPs include specific BMPs to minimize the transport of sediment and protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. The BMPs shown on ESCPs must be installed on or before October 15. ESCPs are required to be revised annually or as required by the Building Official to reflect current conditions of a site.

For grading projects with a disturbed area of 1 or more acres, the required state SWPPP may be used to fulfill the County's ESCP requirements. As with an ESCP, a grading permit cannot be issued until the SWPPP has been submitted and approved by the Building Official (L.A. County Code, §§ J110.8.2 and J110.8.3; County DPW 2014b).

Los Angeles County Flood Control District Code

Chapter 21 of the County Flood Control District Code, Stormwater and Runoff Pollution Control, regulates discharges to LACFCD storm drains. The following discharges are prohibited under this code:

- Stormwater that contains pollutant concentrations exceeding or contributing to an exceedance of water quality standards
- Non-stormwater discharges unless authorized by an NPDES permit and by a permit issued by the Chief Engineer of the LACFCD
- Sanitary or septic waste or sewage from a property or residence, a recreational vehicle, a portable toilet, a waste holding tank, etc.
- Pollutants, leaves, dirt, and other landscape debris

Additionally, Chapter 21 requires that any industrial or commercial facility that is required to have an NPDES permit shall retain on site and, upon request, make available to the LACFCD Chief Engineer, the following documents as evidence of compliance with permit requirements:

- A copy of the NPDES permit or Notice of Intent to comply with a construction general permit to discharge stormwater associated with industrial activity
- A waste discharge identification number or copy of the NPDES permit

- A SWPPP and a monitoring program plan
- Stormwater quality data
- Evidence of facility self-inspection (County Flood Control District Code, Chapter 21, Stormwater and Runoff Pollution Control)

Los Angeles County Programs and Plans

Integrated Regional Water Management Plans

Integrated regional water management plans (IRWMPs) define a clear vision and strategy for the sustainable management of water resources in a specific region delineated by one or more watersheds. IRWMPs generally contain an assessment of current and future water demand, water supply, water quality, and environmental needs. They address the challenges for delivering a stable and clean supply of water for the public, including stormwater and urban runoff water quality, flood protection, water infrastructure needs, use of reclaimed water, water conservation, and environmental stewardship.

During the planning process, all stakeholders, including water distributors and purveyors, regional waterworks and sanitation districts, local public works departments, environmental organizations, nonprofits, and other vested interests, work together to develop common goals, objectives, and strategies for water use. Since water-related issues are addressed on a regional, watershed basis, these plans are instrumental in building consensus amongst the various stakeholders in the development and prioritization of an action plan that is complementary and leverages inter-jurisdictional cooperation, resources, and available funding. There are four IRWMP regions in the County:

- Antelope Valley IRWMP
- Upper Santa Clara River IRWMP
- Greater Los Angeles County IRWMP
- Los Angeles Gateway Region IRWMP (County of Los Angeles ~~2014b~~2015, Chapter 9)

Sediment Management Strategic Plan

In recent years, the County has identified new challenges in managing sediment. In particular, the wildfires in 2007 and 2009 burned a large portion of the County and have led to an increased inflow of sediment and debris within LACFCD facilities. This has put pressure on the remaining capacity of existing sediment placement sites where LACFCD has traditionally placed sediment. As a result, LACFCD has developed a 20-year sediment management strategic plan (Strategic

Plan), dated March 2013, for years 2012–2032 that pursues new alternatives for reducing the environmental and social impacts of sediment management.

The Strategic Plan represents the results of a continuing dialogue about sediment management between LACFCD and numerous stakeholders in the region. The Strategic Plan provides an overview of sediment management issues, evaluates various strategies to help identify optimal solutions for sediment management, and identifies general steps that should be pursued to meet LACFCD's mission. The Strategic Plan is guided by the following key objectives:

- Maintaining flood risk management and water conservation
- Recognizing opportunities for increased environmental stewardship
- Reducing social impacts related to sediment management
- Identifying ways to use sediment as a resource
- Ensuring LACFCD is fiscally responsible in decision making (County DPW 2014c)

Floodplain Management Program

The County has an ongoing Floodplain Management program, which includes mapping of flood hazard areas, adopting associated ordinances, and regulating and enforcing safe building practices. The combination of these activities promotes flood protection in the County and maintains the County's eligibility to participate in FEMA's NFIP (County DPW 2014d).

Low Impact Development Standards Manual

In 2014, the County prepared the LID Standards Manual to comply with the requirements of the MS4 permit issued in 2012 for stormwater and non-stormwater discharges in the coastal watersheds of Los Angeles County (CAS004001, Order No. R4-2012-0175). This manual provides guidance for stormwater quality control measures in new development and redevelopment projects in the unincorporated areas of the County.

Project applicants within unincorporated areas of the County submit a LID Plan for review and approval by the Director of the DPW. These plans must include a discussion of how the proposed project would comply with the requirements of the County's LID Ordinance and LID Standards Manual. LID Plans are required to provide the following:

- Identification of whether the project is a Designated or Non-Designated Project (if Designated, the LID Plan must identify the project category)
- Feasibility of infiltration, including a percolation report prepared by a geotechnical engineer
- Source control measure(s) proposed to be implemented

- Calculation of the stormwater quality design volume
- Discussion as to whether the harvest of stormwater runoff would be feasible
- Stormwater quality control measures
- Discussion of how the applicable water quality standards and TMDLs would be addressed (applies only to off-site mitigation projects)
- Proposed hydromodification controls and calculations
- Proposed maintenance plan

LID Plans can be included in hydrology reports submitted to the County DPW, can be included in grading reports submitted to the County DPW, or can be prepared as a stand-alone document (County of Los Angeles 2014c, Section 5.9).

County All-Hazards Mitigation Plan

The County General Plan Safety Element works in conjunction with the County All-Hazards Mitigation Plan, which is prepared by the Chief Executive Office – Office of Emergency Management (CEO OEM), which sets strategies for natural and man-made hazards in the County. The County All-Hazards Mitigation Plan was adopted by the County Board of Supervisors in October 2004 and has also been approved by FEMA and the California Emergency Management Agency. The plan includes a compilation of known, projected, and historical hazards in the County. The plan addresses all major natural and human-caused disasters that fall within the responsibilities of County departments within the geographic County.

The All-Hazards Mitigation Plan includes risk reduction measures for coastal areas to address tsunami inundation and flooding (County of Los Angeles ~~2014b~~2015, Chapter 12).

Natural Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 require FEMA to evaluate flood hazards. FEMA produces FIRMs for local and regional planners that identify potential flood areas based on current conditions. FEMA conducts Flood Insurance Studies in order to determine potential flood zones to be shown in the FIRMs. For the County, the most recent Flood Insurance Study and the associated FIRM were completed in September 2008. Using these studies, FEMA delineates Special Flood Hazard Areas on the FIRMs.

The Flood Disaster Protection Act requires owners of all structures within identified Special Flood Hazard Areas to purchase and maintain flood insurance as a condition of receiving federal or federally related financial assistance. Community members within designated areas are able to participate in the NFIP afforded by FEMA. The NFIP is required to offer federally subsidized

flood insurance to property owners in communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the NFIP by providing a grant program for state and community flood mitigation projects. The act also established the Community Rating System, a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing erosion hazards.

The County, under the NFIP, has created standards and policies to ensure flood protection. These policies address development and redevelopment, compatibility of uses, required predevelopment drainage studies, compliance with discharge permits, enhancement of existing waterways, cooperation with the U.S. Army Corps of Engineers and the LACFCD for updating, and method consistency with the RWQCB and proposed BMPs.

4.9.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to hydrology and water quality are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

A. Violate any water quality standards or waste discharge requirements.

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).

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.

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.

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.

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.

G. Generate construction or post-construction runoff that would violate applicable stormwater NPDES permits or otherwise significantly affect surface water or groundwater quality.

H. Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Chapter 12.84 and Title 22, Chapter 22.52).

I. Result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance.

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 courses).

K. Otherwise substantially degrade water quality.

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.

M. Place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain.

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.

O. Place structures in areas subject to inundation by seiche, tsunami, or mudflow.

4.9.4 Impacts Analysis

Criterion A: Would the project violate any water quality standards or waste discharge requirements?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or California Environmental Quality Act (CEQA) review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA~~

~~review on a project specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems

Under the proposed project, a small-scale solar energy system may be located near natural areas, such as marshes, lakes, ponds, streams, sloughs, or seasonal wetlands. No environmental review would be required prior to development of these types of projects, and there is a potential that an individual project would drain to a water body. However, all small-scale solar energy systems would still be required to obtain a building permit and therefore would be subject to County ordinances that regulate runoff and water quality standards, as further analyzed below. In addition, installation of solar energy systems on existing structures does not involve water use. During maintenance, solar energy systems are typically cleaned with water on an annual basis. Such activities would be akin to hosing off a paved area or a lawn. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. Although solar panels contain hazardous materials (see Section 4.8 of this EIR for further details regarding hazards and hazardous materials), these chemicals are sealed and/or sandwiched between plates of glass and do not enter the environment unless panels are severely damaged (Gaughan 2014; Alsema et al. 2006). As such, construction and operation of small-scale structure-mounted solar energy systems would not result in runoff or waste discharge to the extent that water quality standards or waste discharge requirements would be violated.

Small-scale ground-mounted solar energy systems would increase impervious surfaces and may involve some ground disturbance, site preparation, and cleaning, depending on the size of the system. As described in Chapter 3, Project Description, systems would be allowed to cover no more than 25% of the lot or parcel of land, or 2.5 acres, whichever is less. Potential water use and runoff would involve water used for dust control during site preparation, if required, and water used to periodically clean the solar energy equipment during operation, if necessary (see the preceding discussion regarding solar panel maintenance). Water used on site for panel washing and/or dust control would evaporate in the air or on the panel surface, would be infiltrated into the ground, or would enter the existing storm drain system. Such projects would be subject to the County's drainage and hydrology requirements, which would minimize stormwater runoff from the site of a ground-mounted system. These requirements include the County Grading Code, the County LID Ordinance, NPDES compliance, and applicable MS4 permits.

Future projects that involve ground disturbance would be required to comply with the County Grading Code (Title 26, Appendix J). Projects that would be required to obtain a grading permit would generally consist of projects involving excavation of more than 50 cubic yards of material. Obtaining a grading permit requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. For projects involving less than 1 acre of disturbed area, the County would require preparation and submittal of an ESCP for approval prior to issuance of grading permits. ESCPs must include specific BMPs to minimize the transport of sediment and to protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. Projects involving disturbance of more than 1 acre would require preparing a SWPPP in accordance with the NPDES Construction General Permit or obtaining an individual NPDES permit. Compliance with the County LID Ordinance would also minimize construction and operational water pollution and stormwater runoff. In addition, systems would be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. Due to existing County drainage and hydrology requirements, as well as the limitations placed on the percentage of parcels that these systems may cover, construction and operation of small-scale ground-mounted solar energy systems would not result in runoff or wastewater discharge to the extent that water quality standards or waste discharge requirements would be violated. For these reasons and those described previously, impacts of small-scale ground-mounted or structure-mounted solar energy systems would be **less than significant**.

Utility-Scale Structure-Mounted Solar Energy Facilities

A utility-scale structure-mounted solar energy facility is defined as a facility affixed to a structure separate from the facility's mechanical support structure, such as a building or carport, where solar energy is used to generate power primarily for off-site use. Utility-scale structure-mounted solar facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include but are not limited to solar collector arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. The California Public Utilities Commission has jurisdiction and regulates such upgrades to substations. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. In addition, utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do

not require operations and maintenance buildings, and as a result, these facilities are anticipated to require minimal ground disturbance, if any. As with small-scale solar energy systems, the facilities would be cleaned annually. However, as described above, any runoff water associated with cleaning would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. Although solar panels contain hazardous materials that could affect water quality if leached into the environment, these chemicals are sealed and/or sandwiched between plates of glass and do not enter the environment unless panels are severely damaged (Gaughan 2014; Alsema et al. 2006). As such, construction and operation of utility-scale structure-mounted solar energy facilities would not result in runoff or waste discharge to the extent that water quality standards or waste discharge requirements would be violated. For these reasons and because future projects would be subject to County drainage and hydrology requirements, impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

~~Under the proposed project, small wind energy systems and temporary MET towers would not be allowed within O-S and W zones, but there is still a potential~~ Small-scale wind energy systems and temporary MET towers ~~they~~ may be located near natural areas, such as marshes, lakes, ponds, streams, sloughs, or seasonal wetlands, in the ~~other~~ zones in which they are allowed. However, these types of projects would require discretionary review under a Minor CUP. The Minor CUP discretionary review process would require all future small-scale wind energy systems and temporary MET towers to be evaluated under CEQA and would require implementation of measures to minimize impacts to water quality, as necessary.

Additionally, ground-mounted projects that involve grading would be subject to the County Grading Code (Title 26, Appendix J). Projects that would be required to obtain a grading permit would generally consist of projects involving excavation of more than 50 cubic yards of material. Obtaining a grading permit requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. For projects involving less than 1 acre of disturbed area, the County would require preparation and submittal of an ESCP for approval prior to issuance of grading permits. ESCPs must include specific BMPs to minimize the transport of sediment and to protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. Projects involving

disturbance of more than 1 acre would require preparing a SWPPP in accordance with the NPDES Construction General Permit or obtaining an individual NPDES permit. Such projects would also be subject to the County LID Ordinance. Compliance with the LID Ordinance would minimize construction and operational water pollution and stormwater runoff.

Further, systems would be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. Lastly, land uses characterizing small-scale wind energy systems and temporary MET towers are not listed as having anticipated and potential pollutants. Similar to small-scale solar energy systems, potential runoff from small-scale wind energy systems and temporary MET towers would be limited to water used for dust control during construction and water used to periodically clean the wind energy equipment during operation. As previously stated, the wash water required for small-scale systems would likely be minimal. The turbine of the wind energy systems would naturally remove some of the dust and debris on the systems through the circular rotation of the rotor blades. Additionally, rainstorms and wind are generally sufficient for removal of dust and debris from small-scale wind energy systems and temporary MET towers. Homeowners and business owners may opt to hose off or sponge-clean small-scale wind energy systems and/or temporary MET towers a few times per year. Such activities would be akin to hosing off a paved area or a lawn. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. Due to the minimal amount of water usage and waste discharge that would be involved with small-scale wind energy systems and temporary MET towers, the existing County drainage and hydrology requirements, and the requirement for future projects to undergo project-level CEQA review during the discretionary permit process, impacts of small-scale wind energy systems and temporary MET towers would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

As part of the County's CUP discretionary review process, all future utility-scale ground-mounted renewable energy facilities would be evaluated under CEQA and would be required to implement measures to minimize impacts to water quality, as necessary. CEQA requires proposed projects to provide detailed information about the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify mitigation measures and alternatives that would reduce or avoid the significant impacts identified for the project.

Future utility-scale ground-mounted facilities would have the potential to result in water quality issues because projects would likely involve ground disturbance and site preparation. Operational water use and potential runoff would involve water used for dust control and water used to periodically clean the renewable energy equipment. Future utility-scale ground-mounted facilities would be subject to a variety of state and local regulations addressing water quality and

waste discharge. For projects using recycled water for landscape irrigation or dust control, a Waste Discharge Requirement issued by the applicable RWQCB may be required. Future projects may also require a Clean Water Act Section 401 water quality certification or dredge and fill Waste Discharge Requirements in the event that streambed alteration and/or discharge of fill material to a surface water were to be involved. Specific permitting requirements would be identified during the project-specific CEQA review process for future utility-scale ground-mounted renewable energy projects.

As previously described, all projects and activities in the County are subject to the County's drainage and hydrology requirements. Utility-scale ground-mounted facility projects would likely involve grading of over 50 cubic yards of material and would therefore be required to comply with the County Grading Code, which requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. Such projects would also likely involve over 1 acre of disturbed area and would therefore be required to prepare and implement a SWPPP to obtain coverage under the NPDES Construction General Permit or to obtain an individual NPDES permit. Furthermore, utility-scale ground-mounted facilities would be required to comply with the County LID Ordinance. This requires projects to prevent pollutants of concern from leaving the development site via stormwater transport and to mimic the stormwater runoff rates and volumes of the undeveloped site per L.A. County Code Section 12.84.440.

Additionally, the proposed Zoning Code amendments specify a number of provisions that would require utility-scale ground-mounted projects to minimize water quality impacts. The proposed Zoning Code amendments require projects to be designed to minimize erosion, sedimentation, or other impacts to the natural hydrology and drainage patterns of the site. Existing topography and watercourses must be retained or restored to preexisting conditions, except for any drainage features designated to mitigate drainage impacts. Projects would also be required to submit a ~~drainage plan~~hydrology study showing the extent of drainage impacts to the satisfaction of the DPW. The proposed Zoning Code amendments also require projects to be designed to minimize grading and ground disturbance. The proposed project further requires future projects to incorporate measures to protect groundwater quality and surface water from waste discharge.

Because all future utility-scale ground-mounted facilities would be required to comply with the water quality protection measures that are included in the proposed Zoning Code amendments, as well as the County's drainage and hydrology requirements, and because such projects would be required to undergo project-specific CEQA review through the CUP process prior to approval, impacts of future utility-scale ground-mounted renewable energy facilities would be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

Like utility-scale structure-mounted solar energy facilities, utility-scale structure-mounted wind energy facilities would require minimal ground disturbance, if any. Water usage and associated runoff would be limited to water used to clean the facilities. As described previously, the turbines typically remove some of the dust and debris on the facilities through the circular rotation of the rotor blades. Additionally, rainstorms and wind are generally sufficient for removal of dust and debris from wind turbines. In the event that the wind turbines were to be hosed off, any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. As such, there would be a minimal amount of water usage and waste discharge involved with such facilities. Additionally, projects would be required to comply with existing County drainage and hydrology regulations and would be required to undergo project-level CEQA review during the discretionary permit process. For these reasons, impacts would be **less than significant**.

Criterion B: ***Would the project 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)?***

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems

Future small-scale solar energy systems would not involve operations that would interfere substantially with groundwater recharge, including but not limited to regional diversion of water to another groundwater basin, or diversion or channelization of a stream course or waterway with impervious layers, such as concrete lining or culverts, for substantial distances (e.g., 0.25 mile). As discussed in Criterion A, installation of solar energy systems on existing structures does not involve water use. During maintenance, solar energy systems are typically cleaned with water on an annual basis. Such activities would be akin to hosing off a paved area or a lawn. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. As such, construction and operation of small-scale structure-mounted systems would not require water use to the extent that groundwater supplies would be depleted and would not create new impervious surfaces that would preclude groundwater recharge. However, there is an overdraft of groundwater in the Antelope Valley region and therefore any usage of groundwater would result in a significant impact to groundwater resources in this area.

Small-scale ground-mounted solar energy structures may require additional water for dust control during construction. Many future small-scale ground-mounted solar energy systems are expected to be small in size and would thus be associated with minimal need for dust control activities and related water usage. As described in Chapter 3, Project Description, systems would be allowed to cover no more than 25% of the lot or parcel of land, or 2.5 acres, whichever is less. In the event that water for dust control activities is required (see Section 4.3, Air Quality, and Section 4.6, Geology and Soils, for a discussion of dust control requirements), water would typically be obtained from a water provider or district but could also be obtained from on-site wells and/or delivered to the site by truck for systems located far from a water provider. In the event that on-site wells are used to obtain water for dust control activities, future projects may use groundwater and would potentially affect the groundwater supply. Many future ground-mounted systems would likely be mounted on concrete foundations on previously disturbed land adjacent to houses or commercial buildings and would not involve water usage for dust control to the extent that groundwater supplies would be depleted. However, systems that are larger in size (up to 2.5 acres) and are in remote locations could involve more substantial groundwater use. These future systems would not be subject to discretionary review permits or any further CEQA review. Additionally, as stated above, there is an overdraft of groundwater in the Antelope Valley region and therefore any usage of groundwater would result in a significant impact to groundwater resources in this area. The project area includes Antelope Valley and the Antelope Valley Groundwater Basin. Therefore, small-scale solar energy systems may result in **potentially significant** impacts to groundwater resources as a result of withdrawing water for dust control activities (**Impact HYD-1**).

Utility-Scale Structure-Mounted Solar Energy Facilities

As described in Criterion A, ground disturbance associated with utility-scale structure-mounted solar energy facilities would be expected to be minimal because these facilities would be mounted to an existing building or structure. During maintenance, solar energy facilities are typically cleaned with water on an annual basis. Such cleaning activities would be akin to hosing off a paved area or a lawn. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. As such, construction and operation of utility-scale structure-mounted solar energy facilities would not require water use to the extent that groundwater supplies would be depleted and would not create new impervious surfaces that would preclude groundwater recharge. However, as stated above, there is an overdraft of groundwater in the Antelope Valley region and therefore any usage of groundwater would result in a significant impact to groundwater resources in this area. The project area includes Antelope Valley and the Antelope Valley Groundwater Basin. For these reasons, impacts of utility-scale structure-mounted solar energy facilities would be **potentially significant (Impact HYD-2)**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Future ~~small~~ small-scale wind energy systems and temporary MET towers would not involve operations that would interfere substantially with groundwater recharge, including but not limited to regional diversion of water to another groundwater basin, or diversion or channelization of a stream course or waterway with impervious layers, such as concrete lining or culverts, for substantial distances (e.g., 0.25 mile). Such systems may be affixed either to the ground or to a structure other than the system's mechanical support structure, such as a building or carport, and shall have a rated capacity of 50 kilowatts or less. ~~No more than two wind energy systems are permitted per 5 gross acres of land.~~ The foundation size for small-scale wind energy systems and temporary MET towers is substantially less than for small-scale ground-mounted solar energy systems and construction would not require substantial water for dust control. During operation, some projects may generally use small amounts of groundwater for cleaning the equipment, such as wind turbine rotor blades, on the site. The purpose of blade cleaning is to eliminate dust and insect buildup, which otherwise deforms the shape of the airfoil and degrades performance. These expected small amounts of water usage would not 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. Such activities would be akin to hosing off a paved area or a lawn. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. Additionally, the discretionary review process would require all future small-scale wind energy systems and temporary MET towers to be evaluated under CEQA and to implement measures to minimize impacts to groundwater, as necessary. Additionally, such projects would be required to comply with the LID Ordinance and to meet the MS4 permit requirements of the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. Due to these existing regulations, future projects would be required to provide for the replenishment of groundwater supplies that have a designated beneficial use in the applicable Basin Plan. Nonetheless, these future small-scale wind energy systems and temporary MET towers would not result in substantial amount of groundwater use. However, as stated above, there is an overdraft of groundwater in the Antelope Valley region and therefore any usage of groundwater would result in a significant impact to groundwater resources in this area. The project area includes Antelope Valley and the Antelope Valley Groundwater Basin. For these reasons, impacts would be **potentially significant (Impact HYD-3)**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

As part of the County's CUP discretionary review process, all future utility-scale ground-mounted renewable energy facilities (both solar and wind) would be evaluated under CEQA and would be required to implement measures to minimize impacts to water quality, as necessary. CEQA requires proponents of proposed projects to provide detailed information about the potentially significant environmental effects the projects are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the projects.

Future utility-scale ground-mounted renewable energy facilities, particularly facilities involving PV panels, could increase the amount of impervious surfaces on a project site. Increasing the amount of impervious surfaces on a site has the potential to preclude groundwater recharge. The County has numerous regulations in place, such as the LID Ordinance, that require projects to be designed to facilitate on-site infiltration of stormwater runoff. However, due to the amount of previously pervious land that utility-scale ground-mounted renewable energy facilities may affect, additional project-specific measure may be required to ensure that impacts involving groundwater recharge are reduced.

During construction of utility-scale ground-mounted renewable energy facilities, water usage would primarily result from fugitive dust control measures. Operational water use would result from water used for fugitive dust control, water used to periodically wash off the solar or wind equipment, water used to establish and maintain landscaping, and water used by maintenance

personnel at an operations and maintenance building. For a typical utility-scale ground-mounted renewable energy facility, water for these uses is often obtained from on-site wells or obtained from a water provider or district and/or delivered to the site by truck. A substantial amount of water usage for dust control may be required, depending on the duration of the construction period and the amount of ground disturbance, grading, and clearing activities required. Water usage would be evaluated for impacts to water supply and other associated environmental impacts at the project level as part of the County's discretionary review process. As previously mentioned, the CUP discretionary review process would require all future utility-scale ground-mounted projects to be evaluated under CEQA and would require implementation of measures to minimize impacts to hydrology and water quality, as necessary, including preparation of a drainage study. Additionally, such projects would be required to comply with the LID Ordinance as well as meet the MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. For projects using recycled water for landscape irrigation or dust control, a Waste Discharge Requirement issued by the applicable RWQCB may be required. Due to these existing regulations, future projects would be required to provide for the replenishment of groundwater supplies that have a designated beneficial use in the applicable Basin Plan. Compliance with the LID Ordinance and MS4 permit requirements would reduce impacts to groundwater resources. However, due to the potential for substantial dust control efforts to be required, due to the overdraft condition in the Antelope Valley as previously discussed, and due to the potential for future projects to result in increased impervious surfaces on project sites, impacts of future projects may be **potentially significant** (**Impact HYD-4**).

Utility-Scale Structure-Mounted Wind Energy Facilities

As described in Criterion A, ground disturbance, if any, associated with utility-scale structure-mounted wind energy facilities would be minimal because these facilities would be mounted to an existing building or structure. During maintenance, wind energy components are typically cleaned with water on an annual basis. Such activities would be akin to hosing off a paved area or a lawn. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. As such, construction and operation of utility-scale structure-mounted wind energy facilities would not require water use to the extent that groundwater supplies would be depleted and would not create new impervious surfaces that would preclude groundwater recharge. Additionally, the discretionary review process would require all future utility-scale structure-mounted wind energy facilities to be evaluated under CEQA and to implement measures to minimize impacts to groundwater, as necessary. Such projects would also be required to comply with the LID Ordinance and to meet the MS4 permit requirements in the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. Due to these existing regulations, future projects would be required to provide for the replenishment of groundwater supplies that have a designated beneficial use in the applicable Basin Plan. These

future facilities would not result in substantial amount of groundwater use. However, as stated above, there is an overdraft of groundwater in the Antelope Valley region and therefore any usage of groundwater would result in a significant impact to groundwater resources in this area. The project area includes Antelope Valley and the Antelope Valley Groundwater Basin. For these reasons, impacts would be **potentially significant (Impact HYD-5)**.

Criterion C: Would the project 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?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems

Installment and operation of small-scale structure-mounted solar energy systems would involve minimal ground disturbance, if any, and therefore would not be expected to alter existing drainage patterns of a site or area. These systems would be located on existing rooftops or other structures, which would potentially increase the velocity of water flow off the roof. However, because the rooftop gutters, landscape areas, and/or drainage layout of a typical site would be able to catch the surface runoff and direct it either into the ground or to the existing infrastructure, installation of small-scale solar energy systems would not substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on or off site. For these reasons, impacts of small-scale structure-mounted solar energy systems would be **less than significant**.

Small-scale ground-mounted solar energy systems would involve ground disturbance with the potential to alter site drainage. Many systems would require minimal site disturbance (as little as 210 square feet, as described in Chapter 3, Project Description). Such systems are allowed to cover no more than 25% of a lot or parcel of land, or 2.5 acres, whichever is less. However, some systems that reach this maximum size would potentially require ground disturbance to the extent that existing site drainage would be altered. Because ground-mounted solar energy systems would involve ground disturbance, future projects would be subject to a number of applicable local and state regulations requiring future projects to minimize changes in drainage patterns and to minimize off-site erosion or siltation. All projects would need to meet applicable water quality requirements including the County LID Ordinance, NPDES program requirements, and Grading Code requirements, as determined by the County. In addition, future projects would be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley.

Under the County Grading Code, projects involving excavation of more than 50 cubic yards of material would generally be required to obtain a grading permit, which requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. For projects involving less than 1 acre of disturbed area, the County would require preparation and submittal of an ESCP for approval prior to issuance of grading permits. ESCPs must include specific BMPs to minimize the transport of sediment and to protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. Projects involving disturbance of more than 1 acre would require preparing a SWPPP in accordance with the NPDES Construction General Permit or obtaining an individual NPDES permit. Similarly, SWPPPs involve implementation of construction and operational measures to control and prevent stormwater pollution.

Additionally, stormwater runoff caused by future projects would be reduced through compliance with the County's LID Ordinance, which requires preventing pollutants of concern from leaving the development site via stormwater transport and matching the stormwater runoff rates and volumes of the undeveloped site per L.A. County Code Section 12.84.440. Projects would also be required to minimize hydromodification impacts to natural drainage, and the site design would be required to mimic stormwater runoff rates and volumes up to and including a 50-year flood event. Compliance with the County's drainage and hydrology requirements would therefore minimize changes to natural site drainage, thereby reducing erosion and siltation.

The local ordinances and regulations described above would minimize alterations of existing drainage patterns and would minimize erosion and siltation on and off site associated with construction and operation of a small-scale ground-mounted system. By conforming to the applicable County requirements, future projects developed pursuant to the proposed project

would result in **less than significant** impacts with respect to causing on- or off-site erosion and siltation due to alteration of on-site drainage.

Utility-Scale Structure-Mounted Solar Energy Facilities

As described in Criterion A, utility-scale structure-mounted solar energy facilities would be mounted to an existing building or structure. Installment and operation of these facilities would involve minimal ground disturbance, if any, and therefore would not be expected to alter existing drainage patterns of a site or area. These facilities would potentially increase the velocity of water flow off the roof. However, because the rooftop gutters, landscape areas, and/or drainage layout of a typical site would be able to catch the surface runoff and direct it either into the ground or to the existing infrastructure, installation of these facilities would not substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on or off site. Additionally, stormwater runoff caused by future projects would be reduced through compliance with the County's LID Ordinance, which requires preventing pollutants of concern from leaving the development site via stormwater transport and matching the stormwater runoff rates and volumes of the undeveloped site per L.A. County Code Section 12.84.440. For these reasons, impacts of utility-scale structure-mounted solar energy facilities would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Installation and operation of small-scale structure-mounted wind energy systems would involve minimal ground disturbance, if any, and therefore would not be expected to substantially alter existing drainage patterns of a site or area. These systems would generally be located on existing rooftops, which would ~~potentially~~ not be expected to increase the velocity of water flow off the roof. ~~However, b~~Additionally, because the rooftop gutters, landscape areas, and/or drainage layout of the site would be able to catch the surface runoff and direct it either into the ground or to the existing infrastructure, installation of small-scale wind energy systems would not substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on or off site. For these reasons, impacts of small-scale structure-mounted wind energy systems would be **less than significant**.

Small-scale ground-mounted wind energy systems and temporary MET towers, however, would involve ground disturbance with the potential to alter site drainage. Projects would therefore be subject to a number of applicable local and state regulations, depending on the size of the disturbed area, that would require future projects to minimize changes in drainage patterns and to minimize off-site erosion or siltation. Applicable regulations are summarized under Criterion A and include the County Grading Code, the County's stormwater and runoff ordinances, and the NPDES program. Additionally, projects of a certain size would be subject to the County LID Ordinance, and future projects would also be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. Under the County Grading Code, projects involving excavation of more than 50 cubic yards of material would generally be required to obtain a grading permit, which requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. For projects involving less than 1 acre of disturbed area, the County would require preparation and submittal of an ESCP for approval prior to issuance of grading permits. ESCPs must include specific BMPs to minimize the transport of sediment and to protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. Projects involving disturbance of more than 1 acre would require preparing a SWPPP in accordance with the NPDES Construction General Permit or obtaining an individual NPDES permit. Similarly, SWPPPs involve implementation of construction and operational measures to control and prevent stormwater pollution.

Additionally, stormwater runoff caused by future projects would be reduced through compliance with the County's LID Ordinance, which requires preventing pollutants of concern from leaving the development site via stormwater transport and matching the stormwater runoff rates and volumes of the undeveloped site per L.A. County Code Section 12.84.440. Projects would also be required to minimize hydromodification impacts to natural drainage, and the site design would be required to mimic stormwater runoff rates and volumes up to and including a 50-year flood event. Compliance with the County's drainage and hydrology requirements would therefore minimize changes to natural site drainage, thereby reducing erosion and siltation.

The local ordinances and regulations described above would minimize alterations of existing drainage patterns and would minimize erosion and siltation on and off site associated with construction and operation of a ground-mounted wind energy system or temporary MET tower. Additionally, these types of projects would require a Minor CUP. The Minor CUP discretionary review process would require all future small wind energy systems and/or temporary MET towers to be evaluated under CEQA and would require implementation of measures to minimize impacts to relative to erosion and siltation, as necessary. Due to the minor amount of drainage alteration involved with constructing and operating small-scale ground-mounted wind energy systems and temporary MET towers, combined with conformance with the applicable County

requirements, future projects developed pursuant to the proposed project would result in **less than significant** impacts with respect to causing on- or off-site erosion and siltation due to alteration of on-site drainage.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Due to the ground disturbance and site modifications involved with utility-scale ground-mounted renewable energy facilities, future projects would potentially alter existing drainage patterns of a site. However, the proposed Zoning Code amendments specify a number of provisions that would require utility-scale ground-mounted projects to minimize changes to the existing drainage patterns of a site and to minimize on- and off-site erosion and siltation. The proposed Zoning Code amendments would require future projects to leave existing vegetation root systems in place where practicable in order to minimize erosion. The proposed Zoning Code amendments also would require projects to be designed to minimize erosion, sedimentation, or other impacts to the natural hydrology and drainage patterns of the site. Existing topography and watercourses would be required to be retained or restored to preexisting conditions, except for any drainage features designated to mitigate drainage impacts. The County would also require submittal of a hydrology study for projects that complies with the most recent County standards for addressing drainage impacts to the satisfaction of the DPW. The proposed Zoning Code amendments would further require projects to be designed to minimize grading and ground disturbance.

In addition to the provisions that are incorporated into the proposed Zoning Code amendments, there are a variety of existing state and local regulations that would require future projects to minimize alteration of site drainage and to reduce erosion and siltation on and off site. Future utility-scale ground-mounted projects would likely involve grading of over 50 cubic yards of material and would therefore be required to comply with the County Grading Code, which requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. Such projects would also require preparing and implementing a SWPPP to obtain coverage under the NPDES Construction General Permit or obtaining an individual NPDES permit. In addition, future projects would be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley.

Stormwater runoff caused by future projects would be reduced through compliance with the County's LID Ordinance, which requires preventing pollutants of concern from leaving the development site via stormwater transport and matching the stormwater runoff rates and volumes of the undeveloped site per L.A. County Code Section 12.84.440. Projects would also be required to minimize hydromodification impacts to natural drainage, and the site design would be required to mimic stormwater runoff rates and volumes up to and including a 50-year flood event. Compliance with the County's drainage and hydrology requirements would therefore

minimize changes to natural site drainage, thereby reducing erosion and siltation. These local ordinances and regulations would minimize changes to the natural site drainage and would minimize on- and off-site erosion and siltation. The specific permit(s) and measures applicable to future project development pursuant to the proposed project would be determined in consultation with the DPW during project-level CEQA review and the County's discretionary CUP process. Although potential impacts to existing drainage patterns would be evaluated at the project level for utility-scale ground-mounted renewable energy facilities, it is anticipated that the provisions incorporated into the proposed Zoning Code amendments, the required permits, and conformance with applicable County and state regulations would ensure that future projects would result in **less than significant** impacts with respect to causing on- or off-site erosion and siltation due to alteration of on-site drainage.

Utility-Scale Structure-Mounted Wind Energy Facilities

As described in Criterion A, utility-scale structure-mounted wind energy facilities would be mounted to an existing building or structure. Installment and operation of these facilities would involve minimal ground disturbance, if any, and therefore would not be expected to alter existing drainage patterns of a site or area. Furthermore, mounting wind turbines to structures would not be expected to increase the runoff velocities of stormwater on rooftops. This is because, in contrast to the smooth flat surface of solar energy systems and facilities, wind turbines consist of a vertical support pole and rotator blades. Furthermore, wind turbines mounted to structures would not result in increased impervious surfaces on a site, as the turbines would be installed on a surface that is already impervious. Any runoff that may result would run into rooftop gutters, landscape areas, and/or the drainage infrastructure of the site. Additionally, future projects would be required to undergo project-specific CEQA review through the discretionary permit process prior to approval. For these reasons, impacts would **be less than significant**.

Criterion D: Would the project 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?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale

structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems

Installment and operation of small-scale structure-mounted solar energy systems would involve minimal ground disturbance, if any, and therefore would not be expected to alter existing drainage patterns of a site or area. These systems would be located on existing rooftops or other structures, which would potentially increase the velocity of water flow off the roof. However, because the rooftop gutters, landscape areas, and/or drainage layout of the site would be able to catch the surface runoff and direct it either into the ground or to the existing infrastructure, installation of small-scale solar energy systems would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site.

Small-scale ground-mounted solar energy systems, however, would involve ground disturbance with the potential to alter site drainage and increase in impervious areas. Projects would therefore be subject to a number of applicable local and state regulations, depending on the size of the disturbed area, that would require future projects to minimize changes in drainage patterns, thereby minimizing the potential for increases in on- and off-site flooding. Applicable regulations are summarized under Criterion A and include the County Grading Code, the County's stormwater and runoff ordinances, and the NPDES program. All projects would need to meet applicable water quality requirements, including LID, as determined by the County, and projects would be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. Under the County Grading Code, projects involving excavation of more than 50 cubic yards of material would generally require a grading permit, which requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. For projects involving less than 1 acre of disturbed area, the County would require preparation and submittal of an ESCP for approval prior to issuance of a grading permit. ESCPs must include specific BMPs to minimize the transport of sediment and to protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. Projects involving disturbance of more than 1 acre would require preparing a SWPPP in accordance with the NPDES Construction General Permit or obtaining an individual NPDES permit. Similarly, SWPPPs involve implementation of construction and operational measures to control and prevent stormwater pollution.

Additionally, stormwater runoff caused by projects would be reduced through compliance with the County's LID Ordinance, which requires preventing pollutants of concern from leaving the development site via stormwater transport and matching the stormwater runoff rates and volumes of the undeveloped site per L.A. County Code Section 12.84.440. Projects would also be required to minimize hydromodification impacts to natural drainage, and the site design would be required to mimic stormwater runoff rates and volumes up to and including a 50-year flood event. Compliance with the County's drainage and hydrology requirements would minimize changes in natural site drainage, thereby reducing the potential for future projects to cause on- or off-site flooding. Additionally, both the County Standard Urban Stormwater Mitigation Plan and the County LID Ordinance require site design measures, source control BMPs, and/or treatment control BMPs to manage and reduce stormwater runoff and to maintain natural site drainage.

The local ordinances and regulations described above would minimize alterations of existing drainage patterns and would thereby minimize flooding on and off site associated with construction and operation of a small-scale ground-mounted solar energy system. Due to the minor amount of drainage alteration involved with constructing and operating small-scale solar energy systems, combined with conformance with the applicable County requirements, future projects developed pursuant to the proposed project would result in **less than significant** impacts with respect to causing increased runoff resulting in on or off-site flooding due to alteration of on-site drainage.

Utility-Scale Structure-Mounted Solar Energy Facilities

As described in Criterion A, these facilities would be mounted to an existing building or structure. Installment and operation of these facilities would involve minimal ground disturbance, if any, and therefore would not be expected to alter existing drainage patterns of a site or area. These facilities would be located on existing rooftops or other structures, which would potentially increase the velocity of water flow off the roof. However, because the rooftop gutters, landscape areas, and/or drainage layout of the site would be able to catch the surface runoff and direct it either into the ground or to the existing infrastructure, installation of utility-scale structure-mounted solar energy facilities would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. For these reasons, impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under the CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Installation and operation of small-scale structure-mounted wind energy systems would involve minimal ground disturbance, if any, and therefore would not be expected to substantially alter existing drainage patterns of a site or area. These systems would be located on existing rooftops or other structures, which would ~~potentially~~ not be expected to increase the velocity of water flow off the roof. ~~However,~~ Additionally, because the rooftop gutters, landscape areas, and/or drainage layout of the site would be able to catch the surface runoff and direct it either into the ground or to the existing infrastructure, installation of small-scale wind structure-mounted energy systems would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site.

Small-scale ground-mounted wind energy systems and temporary MET towers, however, would involve ground disturbance with the potential to alter site drainage. Projects would therefore be subject to a number of applicable local and state regulations, depending on the size of the disturbed area, that would require future projects to minimize changes in drainage patterns, thereby minimizing the potential to increases in on- and off-site flooding. Applicable regulations are summarized under Criterion A and include the County Grading Code, the County's stormwater and runoff ordinances, and the NPDES program. Additionally, projects of a certain size would be subject to the County LID Ordinance, and projects would be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. Under the County Grading Code, projects involving excavation of more than 50 cubic yards of material would generally require a grading permit, which requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. For projects involving less than 1 acre of disturbed area, the County would require preparation and submittal of an ESCP for approval prior to issuance of grading permits. ESCPs must include specific BMPs to minimize the transport of sediment and to protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. Projects involving disturbance of more than 1 acre would require preparing a SWPPP in accordance with the NPDES Construction General Permit or obtaining an individual NPDES permit. Similarly, SWPPPs involve implementation of construction and operational measures to control and prevent stormwater pollution.

Additionally, stormwater runoff caused by projects would be reduced through compliance with the County's LID Ordinance, which requires preventing pollutants of concern from leaving the development site via stormwater transport and matching the stormwater runoff rates and volumes of the undeveloped site per L.A. County Code Section 12.84.440. Projects subject to the County LID Ordinance would also be required to minimize hydromodification impacts to natural drainage, and the site design would be required to mimic stormwater runoff rates and volumes up to and including a 50-year flood event. Compliance with the County's drainage and

hydrology requirements would therefore minimize changes in natural site drainage, thereby reducing the potential for future projects to cause on- or off-site flooding. Additionally, both the County Standard Urban Stormwater Mitigation Plan and the County LID Ordinance require site design measures, source control BMPs, and/or treatment control BMPs to manage and reduce stormwater runoff and to maintain natural site drainage.

The local ordinances and regulations described above would minimize alterations of existing drainage patterns and would thereby minimize flooding on and off site associated with construction and operation of a small-scale ground-mounted wind energy system or temporary MET tower. Additionally, these types of projects would require a Minor CUP. The Minor CUP discretionary review process would require all future small-scale wind energy systems and temporary MET towers to be evaluated under CEQA and to implement measures to minimize impacts to relative to erosion and siltation, as necessary. Due to the minor amount of drainage alteration involved with constructing and operating small-scale ground-mounted wind energy systems and/or temporary MET towers, combined with conformance with the applicable County requirements, future projects developed pursuant to the proposed project would result in **less than significant** impacts with respect to causing increased runoff resulting in on- or off-site flooding due to alteration of on-site drainage.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Due to the ground disturbance and site modifications involved with utility-scale ground-mounted renewable energy facilities, future projects would potentially alter the existing drainage patterns of a site. However, the proposed Zoning Code amendments specify a number of provisions that would require utility-scale ground-mounted projects to minimize changes to the existing drainage patterns of a site and to minimize on- and off-site erosion and siltation. The proposed Zoning Code amendments would require projects to be designed to minimize erosion, sedimentation, or other impacts to the natural hydrology and drainage patterns of the site. The proposed Zoning Code amendments would require existing topography and watercourses ~~would be required~~ to be retained or restored to preexisting conditions, except for any drainage features designed to mitigate drainage impacts. Projects would also be required to submit a ~~drainage plan~~hydrology study showing the extent of drainage impacts, to the satisfaction of the DPW. The proposed Zoning Code amendments would require projects to be designed to minimize grading and ground disturbance. In addition to the provisions that are incorporated into the proposed project, a variety of existing state and local regulations would require future projects to minimize alteration of site drainage, thereby reducing flooding on and off site. Future projects would require a grading permit in accordance with the County Grading Code, which requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. Such projects would also require preparing and implementing a SWPPP to obtain coverage under the NPDES Construction General Permit or obtaining an individual

NPDES permit. In addition, these facilities would be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. Further, utility-scale ground-mounted renewable energy facilities would be subject to the County LID Ordinance, which requires projects to minimize hydromodification impacts to natural drainage and to mimic stormwater runoff rates and volumes up to and including a 50-year flood event. Additionally, the County LID Ordinance requires site design measures, source control BMPs, and/or treatment control BMPs to manage and reduce stormwater runoff and to maintain natural site drainage. These local ordinances and regulations would minimize changes to the natural drainage of future project sites. The specific permit(s) and measures applicable to future project development pursuant to the proposed project will be determined in consultation with the DPW during project-level CEQA review and the discretionary CUP process. Although potential impacts to existing drainage patterns would be evaluated at the project level for utility-scale ground-mounted renewable energy facilities, it is anticipated that the provisions incorporated into the proposed Zoning Code amendments, required permits, and conformance with applicable County and state regulations would ensure that future projects would result in **less than significant** impacts with respect to causing increased runoff resulting in on- or off-site flooding due to alteration of on-site drainage.

Utility-Scale Structure-Mounted Wind Energy Facilities

As described in Criterion A, utility-scale structure-mounted wind energy facilities would be mounted to an existing building or structure. Installment and operation of these facilities would involve minimal ground disturbance, if any, and therefore would not be expected to alter existing drainage patterns of a site or area. In addition, mounting wind turbines to structures would not be expected to increase the runoff velocity of stormwater on rooftops. This is because, in contrast to the smooth flat surface of solar energy systems and facilities, wind turbines consist of a vertical support pole and rotator blades. Further, wind turbines mounted to structures would not result in increased impervious surfaces on a site, as the turbines would be installed on a surface that is already impervious. Any runoff that may result would run into rooftop gutters, landscape areas, and/or the drainage infrastructure of the site. Additionally, future projects would be required to undergo project-specific CEQA review through the discretionary permit process prior to approval. For these reasons, impacts would **be less than significant**.

Criterion E: Would the project 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?

The proposed project consists of implementation of Zoning Code amendments that establish regulations for the development of small-scale renewable energy systems, utility-scale renewable

energy facilities, and temporary MET towers. These future renewable energy systems would consist of structure-mounted or ground-mounted renewable energy equipment, such as PV panels or wind turbines, as well as temporary MET towers. Installment and operation of such equipment would not involve addition of any water features or create conditions in which standing water can accumulate, causing an increase in habitat for mosquitoes or other vectors that transmit diseases, and would not result in increased pesticide use associated with mosquito control; therefore, **no impact** would occur.

Criterion F: ***Would the project 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?***

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems

Small-scale structure-mounted solar energy systems would not be associated with substantial stormwater runoff during construction or operation, as such projects would involve minimal to no water use and would not substantially increase runoff from structures. Although these systems would potentially increase the velocity of water flow off the tops of structures, rooftop gutters, landscape areas, and/or drainage layout of a typical site would be able to catch the surface runoff and direct it either into the ground or to the existing infrastructure. Gutters, surrounding roof surfaces, and landscaping surrounding structures are expected to reduce velocities before runoff reaches the storm drain system. In addition, although runoff velocity could be increased, installation of PV panels on structures would not increase the amount of

impervious surfaces on a site, as the panels would be installed on a surface that is already impervious. As such, the volume of stormwater runoff would not be substantially increased by the presence of PV panels on roofs.

During maintenance, solar energy systems are typically cleaned with water on an annual basis. Such activities would be akin to hosing off a paved area or a lawn. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. For these reasons, small-scale structure-mounted solar energy systems would result in **less than significant** impacts relative to exceedance of storm drain system capacities and relative to increases in polluted runoff.

Small-scale ground-mounted solar energy systems would increase impervious surfaces and may involve some ground disturbance and site preparation. Potential water use and runoff would involve water used for dust control during construction, as necessary, and water used to periodically clean the solar energy equipment during operation (see the preceding description of PV panel maintenance). There are a number of existing regulations in place that would minimize runoff and polluted runoff from ground-mounted solar energy systems. Applicable regulations are summarized under Criterion A and include the County Grading Code, the County's stormwater and runoff ordinances, and the NPDES program. Additionally, projects would be subject to the County LID Ordinance and would be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. Under the County Grading Code, projects involving excavation of more than 50 cubic yards of material would generally require a grading permit, which requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. For projects involving less than 1 acre of disturbed area, the County would require preparation and submittal of an ESCP for approval prior to issuance of grading permits. ESCPs must include specific BMPs to minimize the transport of sediment and to protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. Projects involving disturbance of more than 1 acre would require preparing a SWPPP in accordance with the NPDES Construction General Permit or obtaining an individual NPDES permit. Similarly, SWPPPs involve implementation of construction and operational measures to control and prevent stormwater pollution.

Additionally, stormwater runoff caused by projects would be reduced through compliance with the County's LID Ordinance, which requires preventing pollutants of concern from leaving the development site via stormwater transport and matching the stormwater runoff rates and volumes of the undeveloped site per L.A. County Code Section 12.84.440. Projects would also be required to minimize hydromodification impacts to natural drainage, and the site design would be required to mimic stormwater runoff rates and volumes up to and including a 50-year flood event. Additionally, both the County Standard Urban Stormwater Mitigation Plan and the

County LID Ordinance require site design measures, source control BMPs, and/or treatment control BMPs to manage and reduce stormwater runoff.

Through compliance with the County Grading Code, the NPDES program, and the County LID Ordinance, as applicable, future small-scale ground-mounted solar energy systems would result in a **less than significant** effect with respect to stormwater drainage capacity and polluted runoff.

Utility-Scale Structure-Mounted Solar Energy Facilities

As described in Criterion A, for utility-scale structure-mounted solar energy facilities, minimal ground disturbance, if any, would occur because the facility would be mounted to an existing structure. Although PV panels mounted on structures would potentially increase the velocity of water flow off the tops of structures, rooftop gutters, landscape areas, and/or drainage layout of a typical site would be able to catch the surface runoff and direct it either into the ground or to the existing infrastructure. Gutters, surrounding roof surfaces, and landscaping surrounding structures are expected to reduce velocity before runoff reaches the storm drain system. In addition, although runoff velocity could be increased, PV panels mounted to structures would not result in increased impervious surfaces on a site, as the panels would be installed on a surface that is already impervious. As such, although stormwater velocity could be increased, the volume of stormwater runoff would not be substantially increased by the presence of PV panels on the tops of structures.

Although rainstorms and wind may be sufficient to periodically remove dust and debris from structure-mounted PV panels, facility operators may opt to hose off or sponge-clean the equipment a few times per year. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. Because such cleaning activities are not required frequently, if at all, and because such activities would involve minimal to no water usage (i.e., if a sponge is used), they would not result in runoff water to the extent that the capacities of existing storm drain systems would be surpassed. For these reasons, impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under the CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Construction of small-scale wind energy systems and temporary MET towers would require a Minor CUP. The Minor CUP discretionary review process would require all future small-scale wind energy systems and temporary MET towers to be evaluated under CEQA and would require implementation of measures to minimize impacts to stormwater drainage, as necessary.

Structure-mounted wind energy systems would consist of turbines mounted on existing structures. Unlike PV panels, such devices would not be expected to increase the runoff velocity of stormwater from the tops of structures. This is because wind turbines consist of a vertical support pole and rotator blades, as opposed to the smooth, flat surface of a PV panel. In addition, installation of wind turbines on structures would not increase the amount of impervious surfaces on a site, as the turbines would be installed on a surface that is already impervious. As such, the volume of stormwater runoff would not be substantially increased by the presence of wind turbines on roofs.

The turbine of the wind energy systems would naturally remove some of the dust and debris on the systems from the circular rotation of the rotor blades. Additionally, rainstorms and wind are generally sufficient for removal of dust and debris from small-scale structure-mounted wind energy systems. Homeowners and business owners may opt to hose off or sponge-clean small wind energy systems a few times per year. Such activities would be akin to hosing off a paved area or a lawn. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. Because such cleaning activities are not required frequently, and because such activities would involve minimal to no water usage (i.e., if a sponge is used), they would not result in runoff water to the extent that the capacities of existing storm drain systems would be surpassed. For these reasons, small-scale structure-mounted wind energy systems would result in **less than significant** impacts relative to exceedance of storm drain system capacities and increases in polluted runoff.

Small-scale ground-mounted wind energy systems and temporary MET towers may involve some ground disturbance and site preparation. Potential water use and runoff would involve water used for dust control during construction, as necessary, and water used to periodically clean the wind energy equipment during operation (see the preceding description of wind turbine maintenance). There are a number of existing regulations in place that would minimize runoff and polluted runoff from ground-mounted systems. Applicable regulations are summarized under Criterion A and include the County Grading Code, the County's stormwater and runoff ordinances, and the NPDES program. Additionally, projects would be subject to the County LID Ordinance and would be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. Under the County Grading Code, projects involving excavation of more than 50 cubic yards of material would

generally require a grading permit, which requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. For projects involving less than 1 acre of disturbed area, the County would require preparation and submittal of an ESCP for approval prior to issuance of grading permits. ESCPs must include specific BMPs to minimize the transport of sediment and to protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. Projects involving disturbance of more than 1 acre would require an individual NPDES permit or a SWPPP prepared in accordance with the NPDES Construction General Permit. Such projects would also be subject to the County LID Ordinance. Compliance with the LID Ordinance would minimize construction and operational water pollution and stormwater runoff. Impacts would therefore be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Utility-scale ground-mounted renewable energy facilities would require ground disturbance and grading on large parcels of previously disturbed or undisturbed land and therefore would have the potential to result in an increase in stormwater runoff and/or polluted runoff. However, as described in Criterion A, the proposed Zoning Code amendments specify a number of provisions that would result in minimization of stormwater runoff and polluted runoff from future project sites. The proposed project would require leaving existing vegetation root systems in place where practicable in order to minimize erosion as a result of future projects. Minimization of erosion would reduce the amount of sediment that would be present in any stormwater runoff, thus reducing pollutants in the runoff. The proposed project would require projects to be designed to minimize erosion, sedimentation, or other impacts to the natural hydrology and drainage patterns of the site. Existing topography and watercourses would be required to be retained or restored to preexisting conditions, except for any drainage features designated to mitigate drainage impacts. By maintaining natural drainage, increases in drainage would not be expected to occur as a result of development on the site. The County would also require submittal of a ~~drainage plan~~hydrology study showing the extent of drainage impacts from a project to the satisfaction of the DPW. The proposed project would further require projects to be designed to minimize grading and ground disturbance.

In addition to the provisions that are incorporated into the proposed Zoning Code amendments, a variety of existing state and local regulations would require implementation of measures that would result in reductions of stormwater runoff as well as polluted runoff from future projects. Future projects would be required to comply with the County's stormwater and runoff ordinances, which prohibit discharge of polluted stormwater to storm drains with pollutant concentrations in exceedance of water quality standards. Future utility-scale ground-mounted projects would likely involve grading of over 50 cubic yards of material and would therefore be required to comply with the County Grading Code, which requires preparation and approval of grading plans, including detailed plans of all surface and subsurface drainage devices. Such

projects would also require preparing and implementing a SWPPP to obtain coverage under the NPDES Construction General Permit or obtaining an individual NPDES permit. As characterized previously, a SWPPP is a document consisting of a narrative and a separate sheet within the construction document set, usually in the Civil Engineering or Landscape series, that outlines both a plan to control stormwater pollution during construction (temporary controls) and after construction is completed (the permanent constructed stormwater pollution prevention elements). In addition, utility-scale ground-mounted renewable energy facilities would be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. Further, these facilities would be required to comply with the County LID Ordinance. This requires preventing pollutants of concern from leaving the development site via stormwater transport and matching the stormwater runoff rates and volumes of the undeveloped site per L.A. County Code, Section 12.84.440.

Because all future utility-scale ground-mounted renewable energy facilities would be required to comply with measures to minimize stormwater runoff and polluted runoff that are included in the proposed Zoning Code amendments, the County's stormwater and runoff ordinances, the County Grading Code, the County LID Ordinance, and the NPDES program, and would be required to undergo review through a project-level CEQA review and the CUP process prior to approval, the proposed project would result in **less than significant** impacts relative to stormwater drainage capacity and polluted runoff.

Utility-Scale Structure-Mounted Wind Energy Facilities

As described in Criterion A, utility-scale structure-mounted wind energy facilities would result in minimal ground disturbance, if any. Mounting wind turbines to existing structures would not be expected to increase the runoff velocity of stormwater from the tops of structures. This is because wind turbines consist of a vertical support pole and rotator blades, as opposed to the smooth, flat surface of a PV panel. In addition, wind turbines mounted to structures would not result in increased impervious surfaces on a site, as the turbines would be installed on a surface that is already impervious. As such, the volume of stormwater runoff would not be substantially increased by the presence of wind turbines on the tops of structures.

Although rainstorms and wind may be sufficient to periodically remove dust and debris from structure-mounted wind turbines, facility operators may opt to hose off or sponge-clean the equipment a few times per year. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. Because such cleaning activities are not required frequently, and because such activities would involve minimal to no water usage (i.e., if a sponge is used), they would not result in runoff water to the extent that the capacities of existing storm drain systems would be surpassed. In addition, future projects would be required to undergo project-specific CEQA review through the discretionary permit process prior to approval. For these reasons, impacts would **be less than significant**.

Criterion G: Would the project generate construction or post-construction runoff that would violate applicable stormwater NPDES permits or otherwise significantly affect surface water or groundwater quality?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems

Small-scale structure-mounted solar energy systems would not be associated with substantial water runoff during construction or operation, as these systems would be installed on existing rooftops and would be associated with minimal ground disturbance, if any. These facilities would also not be associated with an increase in impervious surfaces leading to a substantial increase in runoff from rooftops because they are built on existing rooftops. In addition, although solar panels contain hazardous materials that could affect water quality if leached into the environment, these chemicals are sealed and/or sandwiched between plates of glass and do not enter the environment unless panels are severely damaged (Gaughan 2014; Alsema et al. 2006).

Small-scale ground-mounted solar energy systems could involve site clearance that could create or contribute to runoff water during both construction and operation. Compliance with the County's drainage and hydrology requirements, which include the County Grading Code, the County LID Ordinance, MS4 permits, and the NPDES program, would reduce the potential for such projects to generate substantial construction and post-construction runoff. In addition, projects would be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. For projects with a disturbed area greater than 1 acre, compliance with the NPDES Construction General Permit for stormwater discharges would be

required (Order No. 2012-0006-DWQ; NPDES No. CAS000002). Under this permit, discharges from construction sites that are 1 or more acres in size require obtaining an individual NPDES permit or coverage by the Construction General Permit. Obtaining coverage by the Construction General Permit involves filing a Notice of Intent with the SWRCB and developing and implementing a SWPPP.

Although some projects developed pursuant to the proposed project would involve some level of construction and/or post-construction runoff, any project subject to an NPDES Construction General Permit would comply with such permits and the associated BMPs, and impacts would therefore be **less than significant**.

Utility-Scale Structure-Mounted Solar Energy Facilities

Utility-scale structure-mounted solar energy facilities would not be associated with substantial water runoff during construction or operation, as these systems would be installed on existing rooftops and would be associated with minimal ground disturbance, if any. PV panels mounted on structures would potentially increase the velocity of water flow off the tops of structures. However, increases in runoff velocity from rooftops would not increase the water quality effects of existing urban runoff. Additionally, runoff from rooftops, including those containing PV panels, would enter rooftop gutters, landscape areas, and/or drainage infrastructure of the site. As such, the drainage layout of a typical site would be able to catch rooftop runoff and direct it either into the ground or to the existing infrastructure. In addition, although runoff velocity could be increased, PV panels mounted to structures would not result in increased impervious surfaces on a site, as the panels would be installed on a surface that is already impervious. As such, although stormwater velocities could be increased, the volume of stormwater runoff would not be substantially increased by the presence of PV panels on the tops of structures; therefore, water quality violations would not be created or exacerbated.

Although rainstorms and wind may be sufficient to periodically remove dust and debris from structure-mounted PV panels, facility operators may opt to hose off or sponge-clean the equipment a few times per year. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. Because such cleaning activities are not required frequently, if at all, and because such activities would involve minimal to no water usage (i.e., if a sponge is used), they would not result in substantial amounts of runoff water. Although solar panels contain hazardous materials that could affect water quality if leached into the environment, these chemicals are sealed and/or sandwiched between plates of glass and do not enter the environment unless panels are severely damaged (Gaughan 2014; Alsema et al. 2006). As such, water quality violations would not be created or exacerbated. Future projects would also be required to comply with the County's NPDES program. For these reasons, impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Development of small-scale wind energy systems and temporary MET towers would require a Minor CUP. The Minor CUP discretionary review process would require all future small wind energy systems and temporary MET towers to be evaluated under the CEQA and to implement measures to minimize impacts to water quality, as necessary.

Small-scale ground-mounted wind energy systems could involve site clearance, which could create or contribute to runoff water during both construction and operation. The local regulations described in Criterion F would reduce the potential for such projects to generate substantial construction and post-construction runoff. Additionally, projects would be required to comply with the NPDES program and would therefore be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. For projects with a disturbed area greater than 1 acre, compliance with the Construction General Permit for stormwater discharges would be required (Order No. 2012-0006-DWQ; NPDES No. CAS000002). Under this permit, discharges from construction sites that are 1 acre or more in size require obtaining an individual NPDES permit or coverage by the Construction General Permit. Obtaining coverage by the Construction General Permit involves filing a Notice of Intent with the SWRCB and developing and implementing a SWPPP.

Some projects developed pursuant to the proposed project would involve some level of construction and/or post-construction runoff. However, any project subject to an NPDES General Construction Permit or other NPDES permit would comply with such permits and the associated BMPs; therefore, impacts would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Typical utility-scale ground-mounted renewable energy facilities would involve a disturbed site of more than 1 acre; therefore, such projects would require obtaining an NPDES permit or coverage under the Construction General Permit, which involves filing permit registration documents with the SWRCB, including a Notice of Intent and a SWPPP. Compliance with conditions of the NPDES permit or the SWPPP would necessitate compliance with applicable NPDES permits and would reduce construction-related runoff and construction-related pollutant transport. Future projects' effects related to stormwater runoff, polluted runoff, and compliance with NPDES permits

would also be reduced through the discretionary review process prior to approval of future projects. Because such projects would be required to obtain an NPDES permit or coverage under the Construction General Permit, impacts are anticipated to be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

For utility-scale structure-mounted wind energy facilities, minimal ground disturbance, if any, would occur because the facility would be mounted to an existing structure. Construction and operation of such facilities would involve minimal to no water use and would not lead to substantial increases in rooftop runoff. As described above, mounting wind turbines to existing structures would not be expected to increase the runoff velocity of stormwater from the tops of structures because wind turbines consist of a vertical support pole and rotator blades, as opposed to the smooth, flat surface of a PV panel. In addition, wind turbines mounted to structures would not result in increased impervious surfaces on a site, as the turbines would be installed on a surface that is already impervious. As such, the volume of runoff would not be substantially increased by the presence of wind turbines on the tops of structures.

Although rainstorms and wind may be sufficient to periodically remove dust and debris from structure-mounted wind turbines, facility operators may opt to hose off or sponge-clean the equipment a few times per year. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. Because such cleaning activities are not required frequently, and because such activities would involve minimal to no water usage (i.e., if a sponge is used), they would not result in runoff water to the extent that surface water or groundwater quality is altered. Additionally, future projects would be required to undergo project-specific CEQA review through the discretionary permit process prior to approval. Future projects would also be required to comply with the County's NPDES program. For these reasons, impacts would be **less than significant**.

Criterion H: Would the project 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)?

The proposed project consists of implementation of Zoning Code amendments that establish regulations for the development of small-scale solar and wind energy systems, utility-scale solar and wind energy facilities, and temporary MET towers. Future renewable energy projects developed pursuant to the proposed project are required to comply with the requirements of the County's LID Ordinance. Therefore, implementation of the proposed project would not conflict with the County's LID Ordinance and **no impact** would occur.

Criterion I: Would the project result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance (ASBS)?

The proposed project consists of implementation of Zoning Code amendments that establish regulations for the development of small-scale solar and wind energy systems, utility-scale solar and wind 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 ASBS 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 non-point-source pollutants, such as if the entire project site were developed with impervious surfaces and all runoff were allowed to leave the site and eventually reach the ASBS; refer to the analysis under Criterion A. For these reasons, future projects developed pursuant to the proposed project would not be expected to discharge pollutants into an ASBS. Additionally, all future projects would be required to be designed, constructed, and operated in compliance with the County's drainage and hydrology requirements, which include the County Grading Code, the County LID Ordinance, MS4 permits, and the NPDES program. Compliance with these requirements would minimize both the runoff from future project sites and the pollutants in any runoff that might occur. As such, impacts would be **less than significant**.

Criterion J: Would the project 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 courses)?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems

On-site wastewater treatment systems (OWTS; often called septic tanks) are typically installed for renewable energy systems that require on-site staff and that are located in remote areas without access to existing sewers systems. Small-scale solar energy systems (both ground mounted and structure mounted) would provide energy primarily for on-site use, as required in the definitions of the proposed Zoning Code amendments. As such, future projects would be developed on top of or adjacent to a structure that uses electricity. Although periodic cleaning and maintenance may be required for some small-scale solar energy systems, it is expected that the existing on-site structures would provide restroom and potable water facilities for any workers who would be involved with maintenance. Additionally, these maintenance activities are often done by property owners. For these reasons, small-scale solar energy systems would not require OWTS; therefore, **no impact** would result.

Utility-Scale Structure-Mounted Solar Energy Facilities

Although utility-scale structure-mounted solar energy facilities would provide for primarily off-site energy use, by definition, such facilities would be located on existing structures. As such, operations and maintenance buildings would not be associated with these facilities. It is expected that the existing on-site structures would provide restroom and potable water facilities for any workers who would be involved with maintenance. For these reasons, OWTS would not be required; therefore, **no impact** would result.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy systems, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Similar to small-scale solar energy systems, small-scale wind energy systems and temporary MET towers would provide energy primarily for on-site use or for testing purposes, and would require only periodic cleaning and maintenance. Therefore, such projects would not include the development of operations and maintenance buildings or other appurtenant structures that would require OWTS; **no impact** would result.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Utility-scale ground-mounted renewable energy facilities may include operations and maintenance buildings that may support workers full time or periodically. The number of workers typically required for such facilities may range from 0 to 10, on average, depending on the size of the facility. If a future renewable energy facility project proposes to discharge domestic waste to an OWTS, then the DPW and the Department of Public Health would determine whether the site is capable of supporting such a facility 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." Future utility-scale ground-mounted renewable energy facilities and any associated OWTS would be further evaluated under CEQA at the project level as part of the County's CUP discretionary review process. However, impacts are anticipated to be **less than significant** due to existing County and state regulations that address the allowed locations and operational conditions of OWTS.

Utility-Scale Structure-Mounted Wind Energy Facilities

Although utility-scale structure-mounted facilities would provide for primarily off-site energy use, by definition, such facilities would be located on existing structures. As such, operations and maintenance buildings would not be associated with these facilities. It is expected that the existing on-site structures would provide restroom and potable water facilities for any workers that would be involved with maintenance. For these reasons, OWTS would not be required. Therefore, **no impact** would result.

Criterion K: Would the project otherwise substantially degrade water quality?

The proposed project consists of implementation of Zoning Code amendments that establish regulations for the development of small-scale solar and wind energy systems, utility-scale solar and wind energy facilities, and temporary MET towers. Runoff associated with such systems and facilities would consist primarily of wash water used to periodically clean equipment and stormwater runoff from sites that have been cleared for ground-mounted renewable energy systems and facilities. As described in Criteria A, C, D, F, G, and H, wash water would not significantly threaten water quality, as runoff created during the washing process would be minimal and would consist only of water and any debris or dust removed from the equipment by the water. Runoff from cleared sites during construction and/or operation of ground-mounted

renewable energy systems and facilities could introduce increased sediment levels to runoff from the site. However, compliance with the local and state regulations as described under Criteria A, C, D, F, G, and H would minimize runoff and would also minimize pollutant levels of the runoff. Impacts would therefore be **less than significant**. No other water quality issues would result from the proposed project.

Criterion L: Would the project 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?

The proposed project consists of Zoning Code amendments that establish regulations for the development of small-scale solar and wind energy systems, utility-scale solar and wind energy facilities, and temporary MET towers. The project area includes the entire unincorporated County. Therefore, facilities developed pursuant to the proposed project may be located in areas identified as being 100-year flood hazard areas. However, these systems and facilities would not place structures, access roads, or other improvements that would impede or redirect flood flows. ~~because, pursuant to the proposed Zoning Code amendments,~~ The proposed Zoning Code amendments include conditions of approval for projects subject to further discretionary review that would further reduce the potential for flood-related impacts. For example, the existing topography and watercourses at the site of utility-scale ground-mounted facilities 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~~ Additionally, such projects would require submittal of a ~~drainage plan~~hydrology study that complies with all requirements to the satisfaction of the DPW and showing the extent of drainage impacts.~~;~~ Further, all projects must be in compliance with the most recent County standards as described in Criteria A, C, D, F, G, and H for addressing drainage impacts~~;~~ and must acquire all necessary agency approvals. Therefore, impacts would be **less than significant**.

Criterion M: Would the project place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain?

The proposed project consists of implementation of Zoning Code amendments that establish regulations for the development of small-scale solar and wind energy systems, utility-scale solar and wind energy facilities, and temporary MET towers. The project area includes the entire unincorporated County. Therefore, renewable energy systems and facilities developed pursuant to the proposed project may be located in a dam inundation area as mapped in accordance with California Government Code Section 8589.5. However, these systems and 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. Flood-prone areas are depicted on

Figure 4.9-3. Structure-mounted facilities would be roof mounted and therefore would not result in any impacts related to drainage patterns. Although ground-mounted solar energy systems and facilities such as ground-mounted solar panels would involve ground disturbance, these systems and facilities would not place structures, access roads, or other improvements that would impede or redirect flood flows. The proposed Zoning Code amendments include conditions of approval for projects subject to further discretionary review that would further reduce the potential for flood-related impacts For example, ~~because, pursuant to the proposed Zoning Code amendments,~~ the existing topography and watercourses at the site of utility-scale ground-mounted facilities would 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~~ Additionally, such projects would require submittal of a ~~drainage plan~~hydrology study showing the extent of drainage impacts from the project that complies with all requirements to the satisfaction of the DPW.~~,~~ Further, all projects must be in compliance with the most recent County standards for addressing drainage impacts~~,~~ and must acquire all agency approvals. Due to the type of structures affiliated with the proposed project, as well as conformance with the applicable County requirements, future small-scale and utility-scale renewable energy systems and facilities and temporary MET towers would not substantially alter existing drainage patterns, nor would future projects develop structures that would impede flood flows; therefore, impacts would be **less than significant**.

Criterion N: Would the project 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?

The proposed project consists of implementation of Zoning Code amendments that establish regulations for the development of small-scale solar and wind energy systems, utility-scale solar and wind energy facilities, and temporary MET towers. The project area includes the unincorporated County. Therefore, future project development under the proposed project may be located in areas potentially subject to flooding hazards or to inundation by dam or levee failure. Figure 4.9-4 depicts the dams within the County and their respective potential inundation areas. As shown on this figure, dam inundation areas span portions of the unincorporated areas within all Planning Areas except the South Bay Planning Area (see Figure 3-3, Planning Areas, in Chapter 3 for the Planning Area boundaries, as defined in the ~~2014~~ 2015 Draft General Plan Update). However, many of the dams within the County are flood control dams that are not associated with substantial reservoirs for most of the year. In the event that water collects behind such dams after a flood flow, water is released from the dams at a controlled rate to create flood control capacity for the next storm. Therefore, the majority of dams within the project area would not likely cause inundation. Additionally, dams are required

to meet safety requirements of, and are inspected annually by, the Division of Safety of Dams of the California Department of Water Resources. Although dam inundation is not likely, certain land uses have a higher risk of exposing people or structures to flooding hazards, including those resulting from dam or levee failure, because they allow for higher-density development, such as high-density residential development. However, the proposed project would not involve the development of land uses that would support large populations of people or land uses that involve structures particularly susceptible to flooding impacts, such as residential development. Additionally, the proposed project would not result in the placement of habitable structures in a flood hazard area. Further, new development and existing structures within flood hazard areas are required to comply with the County's flood protection policies and standards that the County has developed under the NFIP, as described in Section 4.9.2. Compliance with applicable standards would further ensure that the proposed project would not result in impacts related to the exposure of 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; impacts would be **less than significant**.

Criterion O: Would the project place structures in areas subject to inundation by seiche, tsunami, or mudflow?

The unincorporated County includes areas with the potential to be subject to inundation by seiche, tsunami, or mudflow; therefore, the proposed project could result in development of renewable energy structures within areas subject to seiche, tsunami, or mudflow. The areas of the unincorporated County that would potentially be subject to tsunami are limited and are confined to several coastal areas within the Westside and Santa Monica Mountains Planning Areas. The areas of the unincorporated County that would potentially be subject to seiche are more numerous, as any area near a reservoir or aboveground water storage tank could be subject to a seiche. The areas of the unincorporated County that would potentially be subject to mudflow are also numerous, as the County contains many flood control drainages and hillside areas and is often subject to wildfires, which increase the likelihood of mudflow. While each of these hazards has the potential to occur within numerous and/or particular parts of the unincorporated County, implementation of the proposed project would not change existing land use designations or place habitable structures in areas prone to seiche, tsunami, or mudflow. Therefore, potential impacts from the proposed project relating to seiche, tsunami, or mudflow would be considered **less than significant**.

4.9.5 Level of Significance Before Mitigation

Without mitigation, the following impacts would be potentially significant:

Impact HYD-1 Impacts to groundwater resources from the development of small-scale ground-mounted solar energy systems under the proposed project.

Impact HYD-2 Impacts to groundwater resources from the development of utility-scale structure-mounted solar energy facilities under the proposed project.

Impact HYD-3 Impacts to groundwater resources from the development of small-scale wind energy systems and temporary MET towers under the proposed project.

Impact HYD-4 Impacts to groundwater resources from the development of utility-scale ground-mounted renewable energy facilities under the proposed project.

Impact HYD-5 Impacts to groundwater resources from the development of utility-scale structure-mounted wind energy facilities under the proposed project.

4.9.6 Mitigation Measures

The following mitigation measure would reduce potentially significant impacts to groundwater resources (**Impact HYD-3 through Impact HYD-5)**, but not to a level less than significant:

MM HYD-1 All small-scale wind energy systems, temporary meterological towers, utility-scale ground-mounted solar and wind energy projects, and utility-scale structure-mounted wind energy projects that require a discretionary permit shall be subject to California Environmental Quality Act review, and when impacts to groundwater resources are determined to be potentially significant, evaluation of groundwater resources, such as the preparation of a groundwater resources investigation report, may be required by the Los Angeles County Department of Public Works. The report shall analyze the drawdown of wells and recommend feasible and appropriate project-specific mitigation measures to reduce impacts, such as well monitoring and pumping caps, or requiring water from other sources.

4.9.7 Level of Significance After Mitigation

Impact HYD-1, Impact HYD-2, Impact HYD-3, Impact HYD-4, Impact HYD-5

Appropriate, feasible, and enforceable mitigation measures could not be identified that would reduce potentially significant impacts to a less than significant level; therefore, impacts would remain **potentially significant and unavoidable**.

Table 4.9-1
Groundwater Basins

Planning Area	Groundwater Basin	Sub-Basins
Antelope Valley	Antelope Valley Groundwater Basin	NA
Santa Clarita Valley	Santa Clarita Valley Groundwater Basin	NA
San Fernando Valley	San Fernando Valley Groundwater Basin (also known as the Upper Los Angeles River Area)	• San Fernando Main Basin • Sylmar Basin • Verdugo Basin • Eagle Rock Basin
West and East San Gabriel Valley	San Gabriel Valley Groundwater Basin	• Main San Gabriel Basin • Upper San Gabriel Canyon • Basin • Lower San Gabriel Canyon • Basin • Wayhill Basin • Foothill Basin • Glendora Basin • Claremont Heights Basin • Live Oak Basin • Chino Basin • San Dimas Basin • Pomona Basin • Puente and Spadra Basins • Raymond Basin
Westside South Bay Metro Gateway	Coastal Plain Groundwater Basin	• Central Basin • West Coast Basin • Santa Monica Basin • Hollywood Basin

Source: County of Los Angeles ~~2014b~~ 2015.
Note: NA = not applicable.

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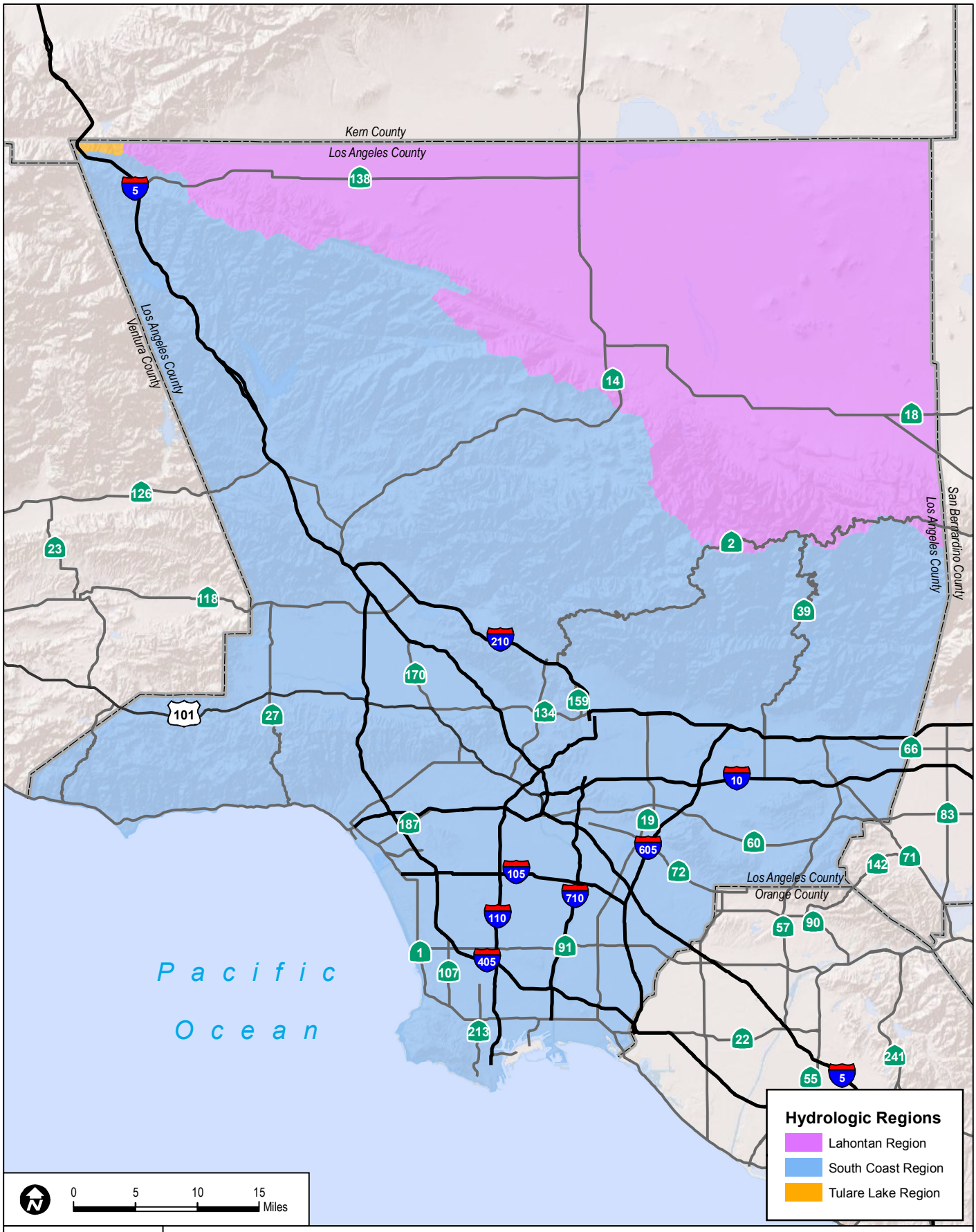

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8124-01

SOURCE: USGS 2011

FIGURE 4.9-1

Hydrologic Regions

Los Angeles County Renewable Energy Ordinance EIR

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Source: Department of Regional Planning, Dec. 2013. Additional Sources: * Department of Public Works for Los Angeles County; ** Watersheds, Water Bodies (Reservoirs, Ponds, Lakes), and stream data for Catalina provided by Catalina Conservancy

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8124-01

FIGURE 4.9-2

Watersheds and Surface Water Bodies

Los Angeles County Renewable Energy Ordinance EIR

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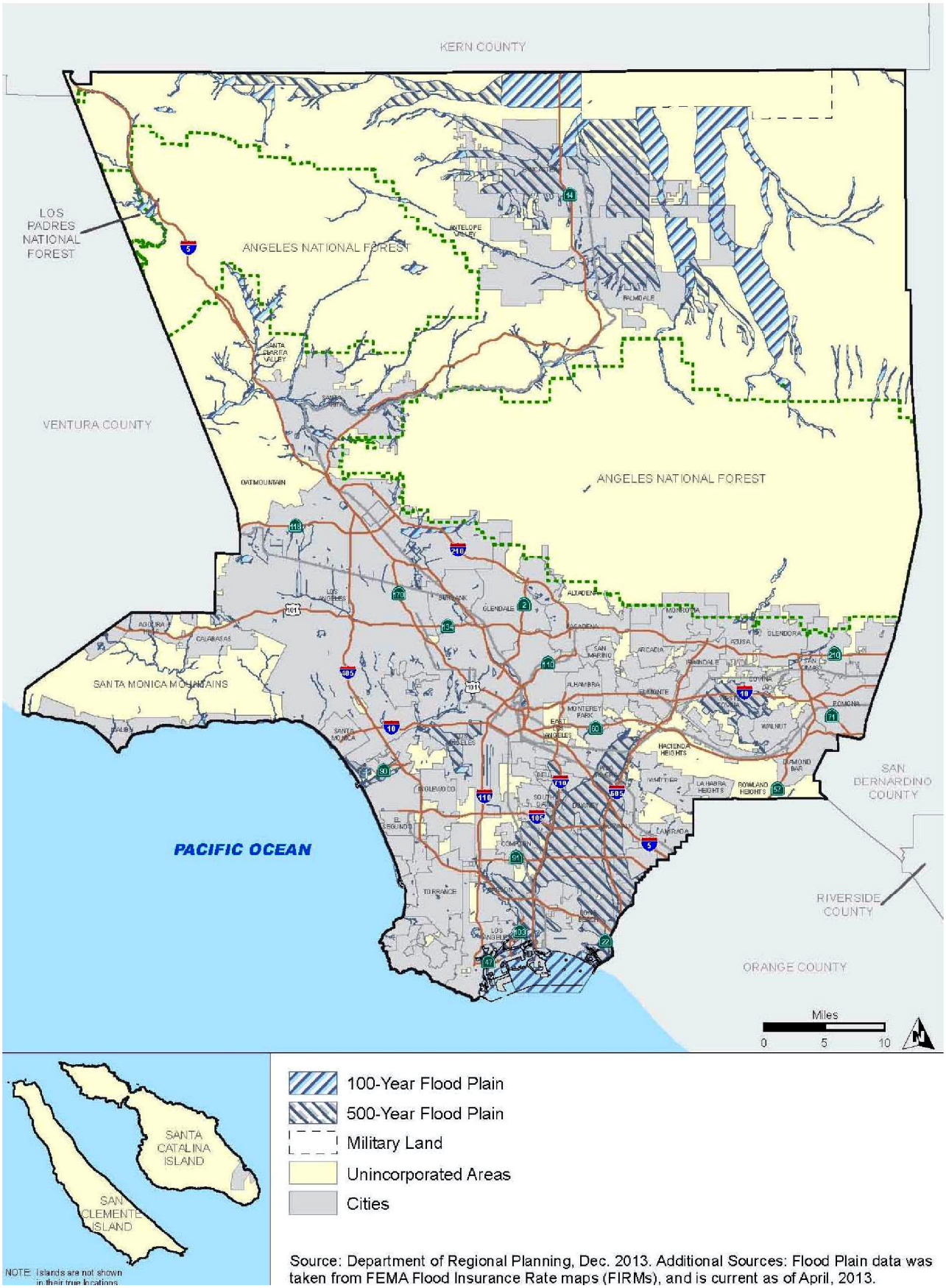

Source: Department of Regional Planning, Dec. 2013. Additional Sources: Flood Plain data was taken from FEMA Flood Insurance Rate maps (FIRMs), and is current as of April, 2013.

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8124-01

FIGURE 4.9-3

Flood Hazard Zones

Los Angeles County Renewable Energy Ordinance EIR

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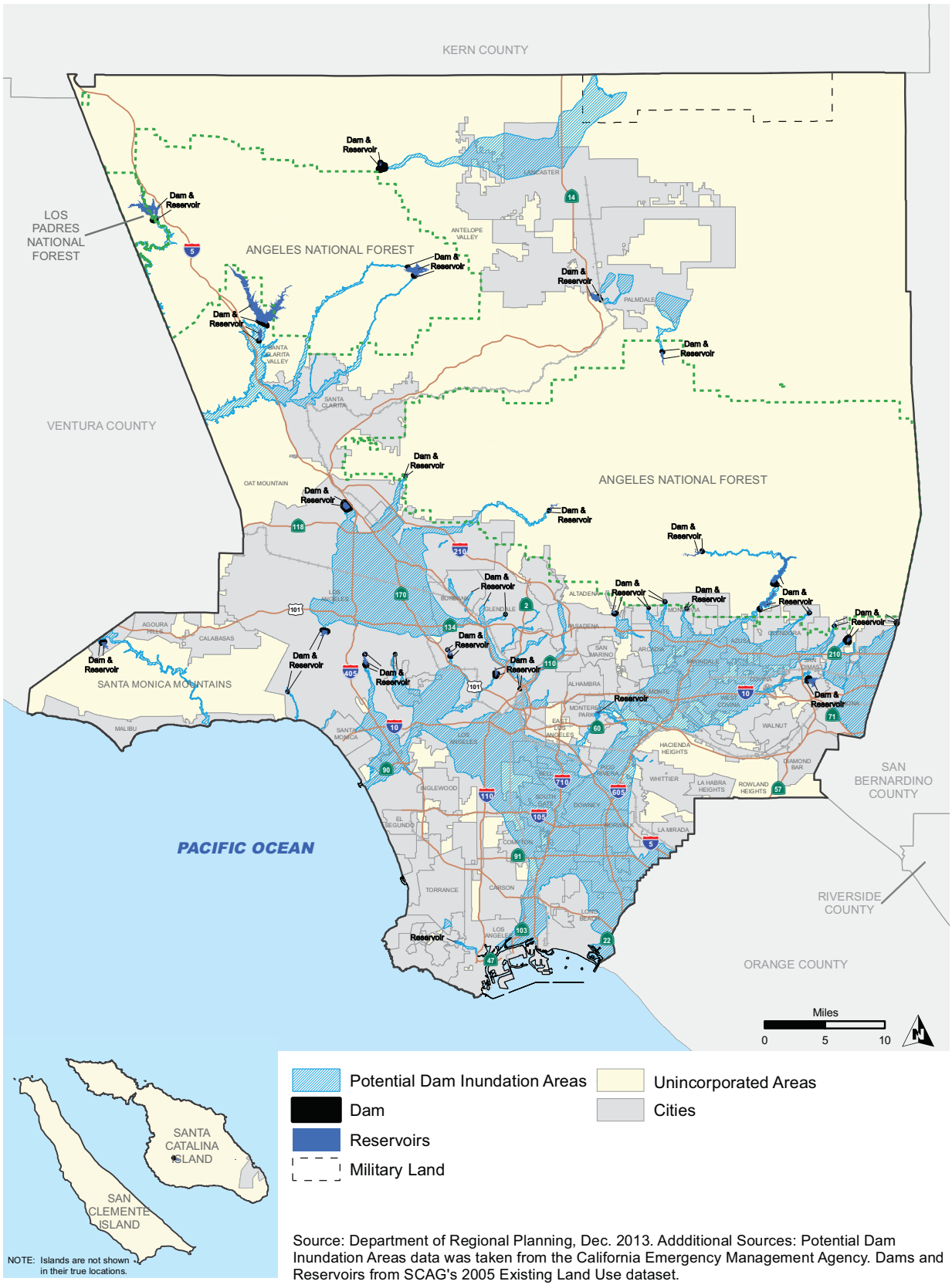

Source: Department of Regional Planning, Dec. 2013. Addditional Sources: Potential Dam Inundation Areas data was taken from the California Emergency Management Agency. Dams and Reservoirs from SCAG's 2005 Existing Land Use dataset.

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FIGURE 4.9-4

Dam and Reservoir Inundation Areas

Los Angeles County Renewable Energy Ordinance EIR

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4.10 LAND USE AND PLANNING

This section describes the existing land use and planning setting of the proposed project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

4.10.1 Existing Conditions

Overview

Los Angeles County (County) encompasses approximately 4,083 square miles and is bounded by the Pacific Ocean to the southwest, Ventura County to the west and northwest, Kern County to the north, and San Bernardino County and Orange County to the east and southeast. Approximately 75 miles of the County fronts the Pacific Ocean.

The proposed project would apply to the unincorporated areas of the County, which accounts for approximately 65% of the total County land area and equates to 2,650 square miles. Because the County is a geographically diverse region with a multitude of geologic, topographic, and human-built features, the proposed project area is divided into three main geographical categories for the purposes of this environmental impact report (EIR): Antelope Valley, the Coastal Islands (~~Santa Catalina Island and~~ San Clemente Island), and the unincorporated urban islands (see Figure 3-2, Project Location Map, in Chapter 3, Project Description). Table 4.10-1, Planning Areas by Geographical Category, shows the relationship between the geographical categories and the Planning Areas identified in the County's existing adopted General Plan and the ~~2014~~ 2015 Draft General Plan Update. Figure 4.10-1, Existing Zoning Map, shows the existing zoning for the County's jurisdiction.[1]

Antelope Valley

The Antelope Valley is the largest of the three geographical areas, covering 1,800 square miles. The unincorporated area of Antelope Valley surrounds the City of Palmdale and the City of Lancaster, and borders San Bernardino County to the east, Ventura County to the west, and Kern County to the north.

The Antelope Valley is predominantly rural and contains many diverse vegetative communities, geologic forms, and climatic conditions. The Angeles National Forest, Liebre Mountain, and the Sierra Pelona are located in the Antelope Valley. The main land feature is high desert, with

[1] The County is currently undergoing a process to update to the boundaries of the zoning designations. These updates are anticipated to go into effect in July 2015. However, the anticipated changes to these boundaries would be minor when viewed across the County as a whole and would not affect the environmental conclusions in this document.

elevations between 2,300 and 2,400 feet above mean sea level. The area contains the majority of active agricultural land uses in the County. The Antelope Valley Significant Ecological Area (SEA), San Andreas SEA, Joshua Tree Woodlands SEA, Santa Clara River SEA, Altadena Foothills and Arroyos SEA, San Gabriel Canyon SEA, and San Dimas Canyon/San Antonio Wash SEA also are located fully or partially within the Antelope Valley Planning Area.

The Antelope Valley is located north of the San Gabriel Mountains, which separates the Los Angeles metropolitan area from the high desert valley.

The three most extensive land uses in the Antelope Valley are agriculture, residential, and military. The majority of the residential areas are found in the central portion of the Antelope Valley Planning Area, including the Cities of Lancaster and Palmdale, and areas adjacent to Edwards Air Force Base and U.S. Air Force Plant 42, which are outside the County's jurisdiction. Over the years, there has been substantial growth in the unincorporated areas, away from the more urban cities.

Coastal Islands

Santa Catalina Island and San Clemente Island are the two most easterly of Southern California's eight Channel Islands. The two islands are peaks of mountains that rise from continental slopes lying approximately 3.5 miles beneath the surface of the Pacific Ocean. Santa Catalina Island, which is approximately 26 miles southwest of the Los Angeles Harbor, has elevations ranging from sea level to 2,100 feet above mean sea level. The island's interior is generally mountainous and rugged, traversed along its main axis by a high ridge. The coastline consists of cliffs and water frontage that provides reasonable access to the island. In addition to the mountainous areas, the island contains a central plateau of rolling hills and numerous valleys. Santa Catalina Island is the only one of the eight Channel Islands with a permanent civilian settlement (Avalon and Two Harbors). San Clemente Island is a publicly owned island devoted to military use and is inhabited by military personnel. Its elevation range is similar to that of Santa Catalina Island. The proposed Zoning Code amendments would not apply to Santa Catalina Island.

Unincorporated Urban Islands

The unincorporated urban islands contain nine County-designated Planning Areas (see Figure 3-3, Planning Areas) and general land use types as described in the following paragraphs.

The East San Gabriel Valley Planning Area is located south of the Angeles National Forest, north of the Orange County border, and east of Interstate 605 (I-605). This Planning Area is characterized by valleys and rolling dry hills that are mostly developed with industrial, commercial, and suburban residential land uses. Unincorporated areas include the Puente Hills,

which contain natural areas that provide recreational opportunities to the region. The San Gabriel River runs along I-605 at the western boundary of the Planning Area.

The West San Gabriel Valley Planning Area is located to the south of Angeles National Forest, north of downtown Los Angeles and the Gateway Planning Area, and west of I-605. The majority of this Planning Area consists of mature suburban communities, some of which extend into the foothills of the San Gabriel Mountains. The San Gabriel River flows along the Planning Area's eastern border and I-605.

The Santa Monica Mountains Planning Area contains the Santa Monica Mountains and the shoreline along the Pacific coast to the Ventura County border to the north and west. The San Fernando Valley is located to the north, and the Westside Planning Area and the City of Los Angeles are located to the east. The Santa Monica Mountains contain many environmentally sensitive lands. This Planning Area provides several recreational opportunities on federal, state, and County parks and beaches, as well as privately held conservancy land.

The Gateway Planning Area is located in the southeast portion of the County. This Planning Area is largely built out, with little vacant land. The majority of land uses in this area are industrial. The Los Angeles and San Gabriel Rivers flow through this Planning Area.

The Metro Planning Area is located in the approximate center of the highly urbanized portion of the County, and includes downtown Los Angeles. This area includes major corporations, businesses, hotels, restaurants, retail stores, and government offices. The Los Angeles River and Compton Creek tributary flow through this Planning Area. All open space areas are contained within parks and recreation areas.

The San Fernando Valley Planning Area is located to the north of the Santa Monica Mountains Planning Area and Westside Planning Area, to the east of Ventura County, to the south of Santa Clarita Valley and Angeles National Forest, and to the west of downtown Los Angeles and San Gabriel Valley. This Planning Area contains hillsides and mountain ranges, including the Santa Susana Mountains to the northwest, Simi Hills to the west, Santa Monica Mountains and Chalk Hills to the south, Verdugo Mountains to the east, and San Gabriel Mountains to the northeast. The Los Angeles River flows along the southern portion of this Planning Area. In addition, Tujunga Wash runs along the Verdugo Mountains through the eastern communities of the Planning Area prior to joining the Los Angeles River. The San Fernando Valley Planning Area is largely developed with mature suburban communities and commercial uses.

The Santa Clarita Valley Planning Area is surrounded by the San Gabriel, Santa Susana, and Sierra Pelona mountain ranges and the Angeles National Forest. It encompasses approximately 480 square miles and contains steep hillsides, sensitive environmental areas, and very high fire

hazard areas. This Planning Area is one of the fastest growing in the County, and is partially developed with primarily residential communities.

The Westside Planning Area encompasses the coastal communities along the Pacific Ocean, the Westside area of the City of Los Angeles, and other small cities (Santa Monica, Beverly Hills, and West Hollywood). This Planning Area is diverse, with the western portion encompassing beaches and Marina Del Rey and the eastern portion encompassing Baldwin Hills and Kenneth Hahn State Park.

The South Bay Planning Area is located in the southwestern corner of the County and includes the Port of Los Angeles. This Planning Area is located to the north and west of the Gateway Planning Area and Metro Planning Area, south of the Westside Planning Area, and east of the Pacific Ocean. This Planning Area consists of low-level areas of the Los Angeles basin, and includes the Palos Verde Peninsula, which is covered with hills, open spaces, cliffs, rocky shorelines, and residential uses.

4.10.2 Relevant Plans, Policies, and Ordinances

State

California Aeronautics Act

The California Aeronautics Act, established by the California Department of Transportation – Division of Aeronautics, requires the preparation of airport land use compatibility plans (ALUCPs). ALUCPs promote compatibility between airports and the land uses that surround them, to the extent that these uses are not already developed with incompatible land uses. ALUCPs are intended to protect the safety of people, property, and aircraft on the ground and in the air in the vicinity of the airport. They also protect airports from encroachment by new incompatible land uses that could restrict their operations. Fifteen public airports are within the jurisdiction of the Los Angeles County Airport Land Use Commission. The County Airport Land Use Commission has a comprehensive County-wide Airport Land Use Plan that includes all airports except for General William J. Fox Airfield, which has its own ALUCP.

California Planning and Zoning Law

California cities and counties exercise local planning and land use functions within the legal framework provided by the California Planning and Zoning Law, Sections 65000 through 66499.58. Under state planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include seven mandatory elements that are described in the California Government

Code. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures.

California Governor's Office of Planning and Research General Plan Guidelines

To assist local governments in meeting general plan requirements, the California Governor's Office of Planning and Research is required to adopt and periodically revise guidelines for the preparation and content of general plans (Cal. Gov. Code, § 65040.2). These are advisory guidelines, not mandated requirements, and serve as a reference tool for cities and counties during preparation of local general plans. The guidelines include information on the required contents of a general plan, and on sustainable development, environmental justice, formatting, public participation, and implementation. The most recent version of the Office of Planning and Research General Plan Guidelines was prepared in 2003. The Office of Planning and Research is currently in the process of preparing an updated version of the guidelines.

Natural Community Conservation Planning Act of 1991

The Natural Community Conservation Planning (NCCP) Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land uses. The California Department of Fish and Wildlife is the principal state agency implementing the NCCP Program. The NCCP Act established a process to allow for comprehensive, regional multispecies planning in a manner that satisfies the requirements of the California and federal Endangered Species Acts (through a companion regional habitat conservation plan). The NCCP Program provides the framework for state governments, local governments, and private interests to plan for the protection of regional biodiversity and ecosystems. Natural community conservation plans seek to ensure the long-term conservation of multiple species, while allowing for compatible and appropriate economic activity to proceed.

Senate Bill 375

Senate Bill (SB) 375 was adopted in September 2008. SB 375 requires metropolitan planning organizations to develop a Sustainable Communities Strategy (SCS) to include in their regional transportation plans to help reduce greenhouse gas emissions. The purpose of SB 375 is to align planning for transportation and housing, and it creates specified incentives for implementation of the SCS. The bill consists of five aspects: (1) creation of regional targets for greenhouse gas emissions reductions tied to land use; (2) a requirement that regional planning agencies create an SCS to meet those targets, even if that SCS is in conflict with local plans; (3) a requirement that regional transportation funding decisions be consistent with the SCS; (4) a requirement that the

Regional Housing Needs Allocation numbers conform to the SCS; and (5) creation of new California Environmental Quality Act (CEQA) exemptions and streamlining for projects that conform to the SCS (Fulton 2008).

Local

West Mojave Plan

The West Mojave Plan is a habitat conservation plan that covers more than 9 million acres in five counties (Inyo, Kern, Los Angeles, San Bernardino, and Riverside), including portions of the proposed project area. The purpose of the plan is to create a comprehensive strategy to conserve and protect the desert tortoise (*Gopherus agassizii*), the Mohave ground squirrel (*Spermophilus (Xerospermophilus) mohavensis*), and nearly 100 other sensitive desert species, as well as the natural communities where they reside. In addition, this habitat conservation plan provides a streamlined program for complying with the requirements of the California and federal Endangered Species Acts.

The West Mojave Plan has not yet been adopted by non-federal agencies. Therefore, the plan only applies to federal public lands.

Draft Desert Renewable Energy Conservation Plan

Portions of the unincorporated areas of the County are within the Draft Desert Renewable Energy Conservation Plan (DRECP). The DRECP was drafted to provide binding, long-term endangered species permit assurances, and to facilitate review and approval of compatible renewable energy projects. The purpose of the DRECP is to protect desert ecosystems while allowing for development of renewable energy projects. Implementation of the DRECP includes an adaptive management and monitoring program to promote ecosystem conservation. The DRECP is a land use plan amendment under the Bureau of Land Management, a natural community conservation plan under the California Endangered Species Act, and a general conservation plan under the federal Endangered Species Act.

1980 General Plan

The California Government Code requires that each city and county adopt a general plan "for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning." In 1980, the County adopted its current general plan, which sets forth goals and objectives for the development of the County and includes land use projections to the year 2000 (County of Los Angeles 1980).

The existing adopted General Plan contains nine elements, as follows:

- The Conservation and Open Space Element addresses the conservation, development, and use of natural resources, including water and land areas devoted to recreation, scenic beauty, conservation and use of natural resources, agriculture, and mineral production.
- The Land Use Element provides land use objectives and policies that guide planners, the general public, property owners, developers, and decision makers about the future development and revitalization plans within the unincorporated County.
- The Housing Element serves as a policy guide to address the comprehensive housing needs of the unincorporated areas, and ensures decent, safe, sanitary, and affordable housing for current and future residents of the County, including those with special needs. The most recent Housing Element was adopted by the County Board of Supervisors on February 4, 2014, and was certified by the state on April 30, 2014.
- The Transportation Element identifies the major locations and corridors of existing and future travel based on existing and projected land use patterns.
- The Water and Waste Management Element describes the existing water supply and distribution, flood protection, water conservation, sewer, water reclamation, and solid waste systems within the County, and sets forth policies regarding these systems.
- The Economic Development Element sets forth policy recommendations for an economic development strategy to address job needs and new job opportunities.
- The Safety Element presents a long-range emergency response plan to reduce future losses of life, injuries, and socioeconomic disruption by design of safer environments and facilities, avoidance of hazardous sites, removal of unsafe structures, and promotion of emergency preparedness.
- The Noise Element identifies noise levels associated with major transportation facilities and shows present and project noise-level contours.
- The Scenic Highway Element establishes and protects scenic highways in the County by identifying and evaluating a system of existing roads that traverse areas of scenic beauty and interest.

In addition, the existing adopted General Plan contains a General Goals and Policies Chapter, an Implementation Chapter, a Plan of Bikeways, and a Regional Recreation Areas Plan.

~~*2014*~~ *2015 Draft General Plan Update*

The California Government Code mandates that general plans be updated periodically to ensure relevance and utility. The County is currently undergoing a comprehensive effort to update the

existing adopted General Plan (County of Los Angeles 1980). The ~~2014~~ 2015 Draft General Plan Update provides the policy framework for how and where the unincorporated areas will grow through the year 2035, and establishes goals, policies, and programs to foster healthy, livable, and sustainable communities (County of Los Angeles ~~2014~~2015). It is anticipated that the General Plan Update will be officially adopted in July 2015. The General Plan Update will go into effect at that time.

The ~~2014~~ 2015 Draft General Plan Update includes revisions and an overall reorganization of the existing adopted General Plan. Several existing elements remain categorized the same: Land Use, Noise, Safety, and Economic Development. The remaining existing elements are categorized in the 2014 Draft General Plan Update as follows:

- The Mobility Element replaces the Transportation Element.
- The Air Quality Element replaces relevant portions covered by the Conservation and Open Space Element.
- The Conservation and Natural Resources Element replaces the Conservation and Open Space Element and the Scenic Highway Element.
- The Park and Recreation Element replaces the Regional Recreation Areas Plan.
- The Public Services and Facilities Element replaces the Water and Waste Management Element.

The ~~2014~~ 2015 Draft General Plan Update includes several major land use policies. Transit-Oriented Districts are intended to encourage high-density, mixed-use infill development near major transit stations. Special Management Areas will require additional development regulations in Agricultural Resource Areas, Airport Influence Areas, Seismic Hazard Zones, Flood Hazard Zones, SEAs, Hillside Management Areas, and Very High Fire Hazard Severity Zones. Development within Employment Protection Districts will also be subject to additional policies and restricted to ensure that industrial lands are not converted to non-industrial uses. Such major land use policies are supported by updated goals, programs, land use maps, and zoning.

4.10.3 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts to land use and planning are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

A. Physically divide an established community.

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.

C. Be inconsistent with the County zoning ordinance as applicable to the subject property.

D. Conflict with Hillside Management criteria, Significant Ecological Areas (SEA) conformance criteria, or other applicable land use criteria.

4.10.4 Impacts Analysis

Criterion A: Would the project physically divide an established community?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Future small-scale solar energy systems may be either ground mounted or affixed to a structure. Although small-scale solar energy systems would result in new permanent structures, these small-scale energy systems would be developed as accessory structures because they would be used primarily for on-site energy generation. Future small-scale solar energy systems could require improvement of access roads. However, because these systems are allowed as an accessory use, improved access roads would be contained within properties and would be private roads that would not bisect communities or town centers.

Although small-scale solar energy systems would generate energy primarily for on-site use, the proposed project allows for any excess energy generated by the small-scale solar energy system to be used off site. Therefore, there is potential for connections to off-site uses, such as transmission lines. However, these systems would be located in areas that have existing structures and basic infrastructure to support the systems, such as substations and transmission lines. Although it is unlikely, these systems may require upgrades to existing transmission lines. Upgrades to existing transmission lines would be contained within the existing right-of-way. Therefore, these systems would not result in development that would bisect a community or town center.

A utility-scale structure-mounted solar energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where solar energy is used to generate power primarily for off-site use. Utility-scale structure-mounted solar facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include but are not limited to solar collector arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. As a result, these facilities are not anticipated to result in development that would bisect a community or town center.

Therefore, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not result in the physical division of an established community and impacts would be **less than significant**.

Program-Level Components

Under the proposed project, development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy systems, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Similar to small-scale solar energy systems, small-scale wind energy systems would be developed as accessory structures. Temporary MET towers would be developed on a temporary basis to gather information for a future wind energy system or facility. The majority of supporting infrastructure for small-scale wind energy systems and temporary MET towers, such as new or improved access roads~~, guy wires,~~ and transmission lines to on-site uses, would be contained on the same property as the small-scale wind energy systems and temporary MET tower. Although small-scale wind energy systems would generate energy primarily for on-site use, the proposed project allows small-scale wind energy systems that exceed on-site energy demand to provide energy to be used off site. Even though there is potential for connections to off-site uses, there is limited potential that infrastructure such as access roads or transmission lines would physically divide an established community. Improvement of access roads, if required, would not physically divide an established community, would not act as a barrier to prevent movement. Additionally, future aboveground portions of transmission lines required for small-scale wind energy systems and temporary MET towers would not act as barriers that would prevent movement; the height of aboveground transmission lines typically allows for roads and other transportation facilities to safely travel underneath them. Therefore, small-scale wind energy systems and temporary MET towers would not result in the physical division of an established community. In addition, the Minor CUP discretionary review process would require all future small-scale wind energy system and temporary MET towers to be evaluated under CEQA and to implement measures to minimize impacts to land use and divisions to established communities to the greatest extent feasible. Therefore, impacts would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Utility-scale ground-mounted renewable energy facilities would generate energy primarily for use by off-site land uses. Although the solar arrays and/or wind turbines themselves would be ground mounted to posts entirely within individual properties, utility-scale ground-mounted facilities also require ancillary structures. Ancillary structures such as substations~~,~~ and operations and maintenance buildings~~, and guy wires~~ would likely be located within the same property as the utility-scale ground-mounted facilities or within other individual properties. As these structures would not cross property lines or the public right-of-way, they would not physically divide or impede access to an established community.

Other ancillary structures, such as transmission lines and access roads, would likely not be limited to individual properties. The proposed project includes standards for access roads and transmission lines for utility-scale facilities. The proposed Zoning Code amendments state that design of temporary and permanent access roads shall be to the satisfaction of the County Department of Public Works and County Fire Department. For transmission lines, the

proposed Zoning Code amendments state that all transmission lines be placed underground unless otherwise required to be aboveground due to specific requirements of the subject area. Although these standards would ensure adequate access-road design and generally subgrade transmission lines, the standards do not impede the potential for new access roads and/or aboveground transmission lines to travel through an established community. However, although there would be connections to off-site uses, there is limited potential that infrastructure such as access roads or transmission lines would physically divide an established community. Development of access roads, should they be required to be placed in an established community, would not act as a barrier to prevent movement. Construction and operation and maintenance roads would likely be limited in size because of the low expected daily traffic. Unlike larger roadways, such as multi-lane boulevards and freeways, an access road would not likely have a substantial amount of vehicles traveling at high speeds or have raised physical barriers that prevent safe pedestrian crossings. Additionally, future aboveground portions of transmission lines required for utility-scale renewable energy facilities would not act as barriers that would prevent movement; the height of aboveground transmission lines typically allow for roads and other transportation facilities to safely travel underneath them. In addition, the discretionary review process would require all future utility-scale ground-mounted facility projects to be evaluated under CEQA and to implement measures to minimize impacts to land use and division of an established community. Therefore, utility-scale ground-mounted facilities would not result in the physical division of an established community and impacts would be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

A utility-scale structure-mounted wind energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where wind energy is used to generate power primarily for off-site use. Utility-scale structure-mounted wind energy facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include but are not limited to wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would most likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be

contained within the existing right-of-way. Additionally, the discretionary review process would require all future utility-scale structure-mounted wind-energy facilities to be evaluated under CEQA and to would require implementation of measures to minimize impacts to land use, as necessary. As a result, these facilities are not anticipated to result in development that would bisect a community or town center and impacts would be **less than significant**.

Criterion B: ***Would the project 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?***

Project-Level and Program-Level Components

As the proposed project would affect all areas under County jurisdiction, it requires consistency with the existing adopted General Plan and each area plan, specific plan, and local coastal plan listed in Section 4.10.2. The following discussion focuses on relevant land use policies regarding energy and renewable energy goals, policies, and objectives.

Existing Adopted General Plan

The existing adopted General Plan has nine elements that contain discussion of existing conditions and policies to guide future growth and development within the County's jurisdiction. Policies related to energy are found in the Conservation and Open Space Element.

This element identifies a need to conserve energy and find new sources of energy by implementing the following policies:

- **Policy 2:** 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.
- **Policy 3:** Promote the use of solar energy to the maximum extent possible.

The proposed project would revise the current County Zoning Code to streamline approval of renewable energy sources, which would encourage the development and expansion of renewable energy sources throughout the County's jurisdiction. Specifically, the proposed project would further Policy 3 by allowing small-scale solar energy systems and utility-scale structure-mounted solar energy facilities by right (provided that they meet the requirements of the proposed Zoning Code amendments), effectively promoting the use of solar energy to the maximum extent possible. ~~The small-scale wind energy systems and temporary MET tower components of the proposed project would be consistent with the above identified energy Policy 2, which encourages development of wind energy systems.~~ Under the proposed project, the existing provisions for wind energy would remain in place, thereby continuing to provide a mechanism

by which wind energy may be harnessed in the County, consistent with Policy 2. Similar to the small-scale solar and wind energy systems and temporary MET towers, the proposed project would allow the development of utility-scale ground-mounted and structure-mounted renewable energy facilities that would produce renewable energy primarily for off-site use. This would be consistent with both energy policies of the existing adopted General Plan, which encourage the use of wind energy and solar energy to the extent possible. Therefore, the proposed project would be consistent with the energy policies of the existing adopted General Plan.

Specific Plans, Local Coastal Plans, Area Plans, and Community/Neighborhood Plans

Specific plans, local coastal plans, area plans, and community plans that contain policies regarding energy sources and utilities are discussed in the following subsections. Two of the relevant planning documents do not contain specific goals, objectives, or policies related to energy sources, utilities, and other aspects of the proposed project (such as location relative to important resources). These plans, which were considered, reviewed, and ultimately not incorporated into this discussion, are the Walnut Park Neighborhood Plan and West Athens/Westmont Community Plan.

Small-scale solar energy systems, small-scale wind energy systems, temporary MET towers, and utility-scale solar and wind energy facilities would be subject to the applicable regulations of the zone or supplemental district in which the project is located. Where Part 15 regulates the same matter as the provisions of the zone or supplemental district, the provisions of Part 15 would take precedence for small-scale projects and temporary MET towers. For utility-scale projects, the more restrictive regulation would take precedence, whether the regulation is from Part 15 or from the provisions of the applicable zone or supplemental district.[2] Furthermore, the proposed Zoning Code amendments require that all accessory structures constructed for utility-scale facilities must meet the applicable development standards of the zone.

Altadena Community Plan

The Altadena Community Plan does not identify policies specific to renewable energy sources. It does, however, contain several goals and policies regarding the encouragement of underground installation of utility lines and controlling the siting and height of new development for the maintenance of views of the San Gabriel Mountains. The proposed Zoning Code amendments include standards for transmission lines to be placed underground, except where aboveground crossings are otherwise required. ~~Allowable heights of renewable energy systems and facilities,~~

[2] With the exception of wind tower height, height for structure-mounted facilities, and perimeter fence height, which would be established by the provisions of Part 15 even if the applicable zone or supplemental district provides for more restrictive height limits.

~~and temporary MET towers would be determined by the zoning of the individual parcel. For example,~~ Projects would be subject to the provisions of the applicable zone in which they are located, with limited exceptions as described above. Additionally, the height of small-scale structure-mounted ~~renewable~~ solar energy systems, utility-scale structure-mounted solar energy facilities, and utility-scale structure-mounted wind energy facilities would not be permitted to exceed the height limit of the zone by more than 5 feet. All ancillary structures would also be required to comply with the zoning of the individual parcel. Therefore, the proposed project would be consistent with the Altadena Community Plan.

~~Antelope Valley Areawide General Plan~~

~~The 1986 Antelope Valley Areawide General Plan includes the following policy related to renewable energy:~~

- ~~**Policy 217:** Promote the use of alternative energy sources (including solar and wind) for heating and cooling.~~

~~The proposed project would revise the current Zoning Code to streamline approval of renewable energy sources, which would encourage development and expansion of renewable energy sources throughout the County's jurisdiction. Therefore, the proposed project would be consistent with this policy.~~

2015 Antelope Valley Area Plan Update

The 2015 Antelope Valley Area Plan Update acknowledges the area's viability for renewable energy production, especially utility-scale facilities, and contains the policies and discussion regarding energy systems and facilities. These policies are specifically tied to the preservation of important natural resources and the rural character of Antelope Valley.

The 2015 Antelope Valley Area Plan Update Conservation and Open Space Element contains goals and related policies that support the development of alternative and renewable energy systems and facilities, including the following:

- **Goal COS 10**: Diverse energy systems that utilize existing renewable or waste resources to meet future energy demands.
- **Goal COS 11**: Energy systems for use in public facilities that reduce consumption of non-renewable resources while maintaining public safety.
- **Goal COS 12**: Individual energy systems for on-site use that reduce consumption of non-renewable resources and dependence on utility-scale energy production facilities.
    - **Policy COS 12.2**: Require appropriate development standards for individual renewable energy systems to minimize potential impacts to surrounding properties.

Simplify the permitting process for individual renewable energy systems that meet these development standards.

- **Goal COS 13**: Utility-scale energy production facilities for off-site use that reduce consumption of non-renewable resources while minimizing potential impacts on natural resources and existing communities.
  - **Policy COS 13.1**: Direct utility-scale renewable energy production facilities, such as solar facilities, to locations where environmental, noise, and visual impacts will be minimized.
  - **Policy COS 13.5**: Where development of utility-scale renewable energy production facilities cannot avoid sensitive biotic communities, require open space dedication within Significant Ecological Areas as a mitigation measure.
  - **Policy COS 13.6**: Ensure that all utility-scale renewable energy production facilities, such as solar facilities, do not create land use conflicts with adjacent agricultural lands or existing residential areas in the vicinity. Require buffering and appropriate development standards to minimize potential conflicts.
  - **Policy COS 13.7**: Limit the aesthetic impacts of utility-scale renewable energy production facilities to preserve rural character.
  - **Policy COS 13.8**: Coordinate with other jurisdictions to plan for utility-scale renewable energy production facilities in order to minimize impacts to sensitive biotic communities and existing residential areas.
- **Goal COS 14**: Energy infrastructure that is sensitive to the scenic qualities of the Antelope Valley and minimizes potential environmental impacts.
  - **Policy COS 14.1**: Require that new transmission lines be placed underground whenever physically feasible.

In addition to the listed goals and policies above, the 2015 Antelope Valley Area Plan Update includes discussion of utility-scale renewable energy production facilities within its Land Use Element. The discussion notes that utility-scale renewable energy facilities may be permitted in land designated as Rural Land without a Community Plan Amendment, and that discretionary review of such facilities, if required, should be considered with the previously listed conservation and open space goals. The proposed project would require discretionary review of utility-scale renewable energy facilities, with the exception of structure-mounted solar energy facilities, in all zones except O-S, W, and R-1. The proposed project would prohibit all utility-scale renewable energy facilities in the O-S and W zones. Utility-scale ground-mounted solar and wind energy facilities would also be prohibited in County-designated SEAs and in Economic Opportunity Areas designated in the Antelope Valley Area Plan. The proposed project would also require new

transmission lines to be placed underground when feasible, in accordance with Policy COS 14.1. Therefore, the proposed project would be consistent with the goals and policies of the 2015 Antelope Valley Area Plan Update.

Diamond Bar Community Plan

The Diamond Bar Community Plan does not specify policies regarding development of energy systems and facilities, but it does contain several policies regarding land use siting. These policies govern preservation of major ridgelines, minimizing grading, and provision of adequate buffers (i.e., fire hazard areas). The proposed Zoning Code amendments include standards for design of facilities to preserve natural topography and adequate setbacks from trees as required by the County Fire Department. Additionally, as greater opportunities for wind energy exist in locations in and around ridgelines, standards for small-scale wind energy systems and utility-scale wind energy facilities are provided in the proposed Zoning Code amendments. The highest point of a small-scale wind energy system or utility-scale structure-mounted wind energy facility is required to be at least ~~50~~ 25 vertical feet and ~~50~~ 100 horizontal feet from ~~a significant ridgeline as identified in applicable planning documents~~the top of any adjacent major ridgeline, as defined in Part 15 of the Zoning Code. For utility-scale ground-mounted wind energy facilities, the highest point of such projects would be required to be at least 50 vertical feet and 300 horizontal feet from a significant ridgeline identified in the General Plan, in an applicable Area or Community Plan, or within an applicable Community Standards District. The proposed Zoning Code amendments would also require slope setbacks for utility-scale ground-mounted wind energy facilities in the vicinity of Hillside Management Areas. Therefore, the proposed project would be consistent with the Diamond Bar Community Plan.

East Los Angeles Community Plan

The East Los Angeles Community Plan does not specify policies related to energy systems, facilities, or utilities. It does, however, mention the preservation of hillside areas and the maximization of views of such areas. As previously mentioned in the discussion for the Diamond Bar Community Plan, the proposed project would require small-scale wind energy systems and utility-scale structure-mounted wind energy facilities to be located at least ~~50~~ 25 vertical feet and ~~50~~ 100 horizontal feet from ~~a significant ridgeline~~the top of any adjacent major ridgeline, as defined in Part 15 of the Zoning Code. For utility-scale ground-mounted wind energy facilities, the highest point of such projects would be required to be at least 50 vertical feet and 300 horizontal feet from a significant ridgeline identified in the General Plan, in an applicable Area or Community Plan, or within an applicable Community Standards District. The proposed Zoning Code amendments would also require slope setbacks for utility-scale ground-mounted wind energy facilities in the vicinity of Hillside Management Areas. Therefore, the proposed project would generally be consistent with the East Los Angeles Community Plan.

Hacienda Heights Community Plan

The Hacienda Heights Community Plan includes the following policies regarding energy systems and facilities:

- **Policy C 5.4:** Support the installation of alternative fuel and renewal energy facilities, where appropriate.
- **Policy PS 6.3:** Ensure adequate energy from both traditional and alternative sources whenever available while promoting more sustainable alternatives.

The plan also includes the following regarding ridgelines and hillsides:

- **Policy LU 4.3:** Locate new structures off the top of a ridgeline, when determined by the reviewing agency to be possible, to preserve undeveloped ridges.

The proposed project would revise the current Zoning Code to streamline approval of renewable energy sources to encourage the development and expansion of renewable energy sources throughout the County's jurisdiction. Therefore, the proposed project would be consistent with the energy policies of the Hacienda Heights Community Plan.

As previously mentioned, the proposed project would locate small-scale wind energy systems and utility-scale structure-mounted ~~renewable~~ wind energy facilities at least ~~50~~ 25 vertical feet and ~~50~~ 100 horizontal feet from the top of any adjacent major ridgeline, as defined in Part 15 of the Zoning Code~~a significant ridgeline as identified in applicable planning documents~~. For utility-scale ground-mounted wind energy facilities, the highest point of such projects would be required to be at least 50 vertical feet and 300 horizontal feet from a significant ridgeline identified in the General Plan, in an applicable Area or Community Plan, or within an applicable Community Standards District. The proposed Zoning Code amendments would also require slope setbacks for utility-scale ground-mounted wind energy facilities in the vicinity of Hillside Management Areas. Therefore, the proposed project would be consistent with the ridgeline policy of the Hacienda Heights Community Plan.

La Vina Specific Plan

The La Vina Specific Plan does not contain policies specific to the development of energy systems and facilities. It does contain a policy to underground utility lines when feasible, and the proposed project would be consistent with this policy. The La Vina Specific Plan Area consists of a 220-acre area containing residential land uses, recreational areas, a school, and a large area of open space. Due to this, future projects resulting from the proposed project within the La Vina Specific Plan Area would likely be structure- or ground-mounted small-scale solar energy systems. Therefore, the proposed project would be consistent with the La Vina Specific Plan.

Marina del Rey Land Use Plan

The Marina del Rey Land Use Plan places high priority on preserving views of the harbor, and includes height limitations. Based on the land uses within the Marina del Rey community, it is likely that small-scale solar energy systems would be pursued in this area. ~~As discussed above, all ground-mounted renewable energy systems and any ancillary structures would be required to comply with the zoning of the individual parcels. Structure-mounted renewable energy systems may only exceed the zoning height limits by no more than 5 feet. The proposed Zoning Code amendments state that all provisions of the zone and supplemental district regulations shall apply to all components of the small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers.~~ Projects would be subject to the provisions of the applicable zone in which they are located, with limited exceptions as described above. Additionally, small-scale structure-mounted solar energy systems, utility-scale structure-mounted solar energy facilities, and utility-scale structure-mounted wind energy facilities may only exceed the zoning height limits by 5 feet. The proposed Zoning Code amendments also require that all accessory structures constructed for utility-scale facilities must meet the applicable development standards of the zone. As such, the proposed project would comply with the additional height regulations within the Marina del Rey community where applicable. Therefore, the proposed project would be consistent with the Marina del Rey Land Use Plan.

Newhall Ranch Specific Plan

The Newhall Ranch Specific Plan permits energy-generating and storage devices in all land use designations except the River Corridor and High Country Special Management Areas, provided they show substantial conformance with the guidelines of the Specific Plan or a CUP (Open Areas only). The procedures for showing substantial conformance are defined in Section 5.2 of the Newhall Ranch Specific Plan. Additionally, as stated in the Newhall Ranch Specific Plan, if energy-generating and storage devices are proposed in designated Open Space areas, the project would be required to undergo the County's standard CUP discretionary review process. The Newhall Ranch Specific Plan also contains the following policies regarding energy:

- **Policy 6.2:** 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.
- **Policy 6.3:** Promote the use of solar energy to the extent possible.

The proposed project would revise the current Zoning Code to streamline approval of renewable energy sources to encourage the development and expansion of renewable energy sources throughout the County's jurisdiction. The proposed project would be consistent with the energy policies of the Newhall Ranch Specific Plan. The requirement for a CUP for energy-generating

devices would not conflict with the proposed project, as the Newhall Ranch Specific Plan is designated as a specific plan zone and all requirements of the specific plan would be carried forward. The permitting requirements of the proposed project do not cover specific plan zones; see Table 3-3, Renewable Energy Permit Requirements.

Northlake Specific Plan

Similar to several plans discussed previously, the Northlake Specific Plan does not contain policies regarding the development of energy systems and facilities, but includes policies for general protection of visual resources, corridors, and hillside areas. As discussed previously, the proposed project would be consistent with such policies and therefore would be consistent with the Northlake Specific Plan.

Rowland Heights Community Plan

The Rowland Heights Community Plan contains similar land use policies to the plans discussed above that call for preserving ridgelines, placing utility lines underground, and preserving key views. As discussed previously, the proposed Zoning Code amendments contain standards for developing away from ridgelines, assessing visual impacts, and requiring transmission lines to be placed underground where feasible. Therefore, the proposed project would be consistent with these policies of the Rowland Heights Community Plan.

Santa Catalina Local Coastal Plan

The proposed Zoning Code amendments would not apply to the Santa Catalina Local Coastal Plan area. ~~The Santa Catalina Local Coastal Plan contains four items related to alternative energy, including wind and solar (specifically in existing and new residential and non residential land uses). The proposed project would revise the current Zoning Code to streamline approval of certain renewable energy projects to encourage the development and expansion of renewable energy sources throughout the County's jurisdiction, including small scale solar energy systems that would be developed for on site energy demand for existing land uses. Therefore, the proposed project would be consistent with the energy goals of the Santa Catalina Local Coastal Plan. As discussed previously, the proposed Zoning Code amendments provide standards stating that the placement of small scale wind energy systems and utility scale renewable energy facilities shall not obstruct any identified public view within the coastal zone. Therefore, the proposed project would be consistent with the Santa Catalina Local Coastal Plan.~~

Santa Clarita Valley Area Plan

The Santa Clarita Valley Area Plan includes the following policies related to renewable energy:

- **Policy LU-7.1.2:** Promote the use of solar panels and renewable energy sources in all projects.
- **Policy LU-8.1.11:** Work with existing utilities, agencies, and renewable energy companies to remove barriers to renewable energy production.

As discussed previously, the proposed project would revise the current County Zoning Code to streamline approval of renewable energy projects to encourage the development and expansion of renewable energy sources throughout the County's jurisdiction. Therefore, the proposed project would be consistent with the renewable energy policies in the Santa Clarita Valley Area Plan.

Similar to several plans discussed above, the Santa Clarita Valley Area Plan contains policies for ridgeline protection, provision of new utility lines underground, minimizing impact to topography, and compatibility with visual character of the area. As discussed previously, the proposed Zoning Code amendments include standards for development away from identified significant ridgelines or major ridgelines, development of underground transmission lines to the extent feasible, minimizing grading to preserve natural topography of sites, and performing visual assessments of future development. Therefore, the proposed project would be consistent with the Santa Clarita Valley Area Plan.

Santa Monica Mountains North Area Plan

The Santa Monica Mountains North Area Plan does not contain policies specific to energy production or renewable energy sources. Land use policies within the Santa Monica Mountains North Area Plan generally relate to developing land uses that are compatible with the surrounding natural environment. These policies include preservation of diverse topography, limiting ridgeline development, and preserving open space. The proposed project would be consistent with such types of policies and with the Santa Monica Mountains North Area Plan.

Santa Monica Mountains Local Coastal Program

The recently adopted Santa Monica Mountains Local Coastal Program includes the following policies related to energy systems and utilities:

- **CO-144** – New development shall incorporate colors and exterior materials that are compatible with the surrounding landscape. The use of highly reflective materials shall be prohibited, with the exception of solar panels.

- **CO-145** – Solar energy devices/panels shall be sited on the rooftops of permitted structures, where feasible to minimize site disturbance and the removal of native vegetation. If roof-mounted systems are infeasible, ground-mounted systems may be allowed only if sited within the building site area of permitted development. Wind energy systems are prohibited.
- **CO-146** – Encourage the undergrounding of all existing and future utilities as funding is available.
- **CO-147** – Limit the height of structures above existing grade to minimize impacts to visual resources. Within scenic areas, the maximum allowable height shall be 18 feet above existing or finished grade, whichever is lower. Chimneys, rooftop solar equipment and non-visually obstructing rooftop antennas may be permitted to extend above the allowable height of the structure, but shall not extend more than six feet above the maximum allowable height.

The Santa Monica Mountains Local Coastal Program also includes multiple policies related to siting, design, and placement of utility infrastructure in such a manner as to protect public views and scenic resources. As discussed under several other plans previously, the proposed project would be consistent with policies regarding protection of scenic resources. The proposed project would conform to Policy CO-145, and any future wind energy systems, wind energy facilities, and temporary MET towers that are permitted under the proposed project would remain prohibited within the Santa Monica Mountains Local Coastal Program Plan Area. The proposed project would affect the permitting of structure- and ground-mounted solar energy systems and facilities, which would be consistent with Policy CO-145. The proposed project would also be consistent with permitted height extensions above maximum allowable height on rooftops. Therefore, the proposed project would be consistent with the Santa Monica Mountains Local Coastal Program.

Twin Lakes Community Plan

The Twin Lakes Community Plan does not identify policies regarding energy or renewable energy sources. However, as with several plans discussed above, objectives are identified for maintaining view corridors to the extent feasible; the plan does not, however, identify these view corridors. ~~The proposed project would require small-scale wind energy systems and utility-scale renewable energy facilities that are placed within the viewshed of scenic drives to be analyzed for visual impacts.~~ The existing provisions in Part 15 of the Zoning Code require any small-scale wind energy system that is placed in the viewshed of a designated Major, Secondary, Limited Secondary, or Scenic Highway to be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility must be applied. This regulation would remain in place under the proposed project. Similarly, the proposed Zoning Code amendments

would require utility-scale ground-mounted facilities that are placed within the viewshed of a Scenic Drive, Scenic Highway, or Scenic Route identified in the General Plan, an applicable Area or Community Plan, or Community Standards District to be analyzed for any associated negative impacts, including but not limited to visual impacts. Appropriate conditions relating to siting, buffering, height, and design of the facility may be imposed to minimize significant effects on the viewshed. Therefore, the proposed project would be consistent with the objectives related to maintain view corridors in the Twin Lakes Community Plan.

Universal Studios Specific Plan

The Universal Studios Specific Plan does not contain specific policies or regulations pertaining to development of energy systems and facilities. However, it does contain specific sustainable development measures and energy conservation measures such as exceeding Title 24, Part 6 of the California Code of Regulations by at least 15%. The proposed project would aid in achieving such energy conservation goals within the Universal Studios Specific Plan through promotion of conservation of non-renewable-energy sources and development of renewable energy sources. Therefore, the proposed project would be consistent with the Universal Studios Specific Plan.

Plans and Updates Currently in Draft Form

A preliminary analysis was conducted of the ~~2014~~ 2015 Draft General Plan Update ~~and the Draft Antelope Valley Area Plan~~.

~~2014~~ 2015 Draft General Plan Update

The ~~2014~~ 2015 Draft General Plan Update discusses how the topography and climate of California lend themselves to providing significant opportunities for renewable energy sources such as wind, solar, and tidal power. The draft Air Quality and Conservation Element and Natural Resources Element specifically identify policies for renewable energy:

- **Policy AQ 3.5:** Encourage energy conservation in new development and municipal operations.
- **Policy AQ 3.6**: Support rooftop solar facilities on new and existing buildings.
- **Policy C/NR 12.1:** Encourage the production and use of renewable energy resources.
- **Policy C/NR 12.2:** Encourage the effective management of energy resources, such as ensuring adequate reserves to meet peak demands.
- **Policy C/NR 12.3**: Encourage distributed systems that use existing infrastructure and reduce environmental impacts.

Similar to the existing adopted General Plan, the ~~2014~~ 2015 Draft General Plan Update encourages the development of renewable energy sources and effective management and conservation of energy resources.

The proposed project would revise the current Zoning Code to streamline approval of certain renewable energy projects to allow for development and expansion of renewable energy sources throughout the County's jurisdiction. The proposed project would also regulate small-scale wind energy systems, temporary MET towers, utility-scale ground-mounted solar and wind facilities, and utility-scale structure-mounted wind facilities through development standards, ~~and~~ permitting, and ~~of~~ a discretionary approval process. Through the proposed project, conservation of current non-renewable energy sources would be promoted. Specifically, through expansion of small-scale solar and wind energy systems, the proposed project would allow individual properties within the County to be less dependent on grid-sourced utility-based energy, likely resulting in lower peak demand and encouraging distributed systems. The proposed Zoning Code amendments include provisions for structure-mounted small-scale solar energy systems, including roof-mounted solar for both new and existing buildings. Existing ~~P~~provisions for temporary MET towers would remain in place and would continue to facilitate the expansion of wind energy throughout the County by allowing testing of the feasibility and optimal locations for wind turbines on properties for on-site and off-site energy use.

Because utility-scale ground-mounted and structure-mounted renewable energy facilities would produce solar and wind energy primarily for use off site, these facilities would potentially provide renewable energy to properties where small-scale wind and solar energy systems were determined to be not optimal or infeasible. At a utility scale, these facilities would provide larger sources of two types of renewable energy, resulting in a more diverse portfolio of energy sources to aid in energy demand management and distribution of renewable energy. Therefore, the proposed project would be consistent with the energy conservation and renewable energy policies of the ~~2014 Draft~~ General Plan Update.

~~Draft Antelope Valley Area Plan~~

~~The County is currently updating the Antelope Valley Area Plan with the Draft Antelope Valley Area Plan. On November 12, 2014, the County Board of Supervisors certified the related EIR for the Draft Antelope Valley Area Plan and indicated its intent to adopt the draft plan. The Draft Antelope Valley Area Plan acknowledges the area's viability for renewable energy production, especially utility scale facilities, and contains the policies and discussion regarding energy systems and facilities. These policies are specifically tied to the preservation of important natural resources and the rural character of Antelope Valley.~~

The Draft Antelope Valley Area Plan Conservation and Open Space Element contains goals and related policies that support the development of alternative and renewable energy systems and facilities, including the following:

- **Goal COS 10**: Diverse energy systems that utilize existing renewable or waste resources to meet future energy demands.
- **Goal COS 11**: Energy systems for use in public facilities that reduce consumption of non-renewable resources while maintaining public safety.
- **Goal COS 12**: Individual energy systems for on-site use that reduce consumption of non-renewable resources and dependence on utility-scale energy production facilities.
    - **Policy COS 12.2**: Require appropriate development standards for individual renewable energy systems to minimize potential impacts to surrounding properties. Simplify the permitting process for individual renewable energy systems that meet these development standards.
- **Goal COS 13**: Utility-scale energy production facilities for off-site use that reduce consumption of non-renewable resources while minimizing potential impacts on natural resources and existing communities.
    - **Policy COS 13.1**: Direct utility-scale renewable energy production facilities, such as solar facilities, to locations where environmental, noise, and visual impacts will be minimized.
    - **Policy COS 13.5**: Where development of utility-scale renewable energy production facilities cannot avoid sensitive biotic communities, require open space dedication within Significant Ecological Areas as a mitigation measure.
    - **Policy COS 13.6**: Ensure that all utility-scale renewable energy production facilities, such as solar facilities, do not create land use conflicts with adjacent agricultural lands or existing residential areas in the vicinity. Require buffering and appropriate development standards to minimize potential conflicts.
    - **Policy COS 13.7**: Limit the aesthetic impacts of utility-scale renewable energy production facilities to preserve rural character.
    - **Policy COS 13.8**: Coordinate with other jurisdictions to plan for utility-scale renewable energy production facilities in order to minimize impacts to sensitive biotic communities and existing residential areas.
- **Goal COS 14**: Energy infrastructure that is sensitive to the scenic qualities of the Antelope Valley and minimizes potential environmental impacts.

- ~~**Policy COS 14.1**: Require that new transmission lines be placed underground whenever physically feasible.~~

~~In addition to the listed goals and policies above, the Draft Antelope Valley Area Plan includes discussion of utility-scale renewable energy production facilities within its Land Use Element. The discussion notes that utility scale renewable energy facilities may be permitted in land designated as Rural Land without a Community Plan Amendment, and that discretionary review of such facilities, if required, should be considered with the previously listed conservation and open space goals. The proposed project would require discretionary review of utility-scale renewable energy facilities, with the exception of structure-mounted solar energy facilities, in all zones except O-S, W, and R-1. The proposed project would prohibit all utility-scale renewable energy facilities and small-scale wind energy systems in the O-S and W zones. Utility-scale ground-mounted solar and wind energy facilities would also be prohibited in County-designated SEAs and in Economic Opportunity Areas designated in the Antelope Valley Area Plan. The proposed project would also require new transmission lines to be placed underground when feasible, in accordance with Policy COS-14.1. Therefore, the proposed project would be consistent with the goals and policies of the Antelope Valley Area Plan.~~

Airport Land Use Compatibility Plans

The proposed project would allow for development of renewable energy systems on parcels within the plan areas of adopted ALUCPs (including the comprehensive Los Angeles County Airport Land Use Plan and the ALUCP for the General William J. Fox Airfield in Lancaster). The proposed Zoning Code amendments also include the following aviation safety measures relative to temporary MET towers, small-scale wind energy systems, and utility-scale ground-mounted ~~renewable~~ wind energy facilities:

Small-Scale Wind Energy Systems and Temporary MET Towers

- ~~All safety lights for any wind tower shall comply with applicable Federal Aviation Administration (FAA) standards. Any aviation-related agency or the County's Department of Regional Planning may require additional standards as deemed necessary. No other lights shall be placed on the wind tower.~~A safety light that meets FAA standards shall be required for all facilities exceeding 50 feet in height, including any wind turbine generator, wind-measuring devices, and the highest vertical extent of any blades. A safety light may also be required on shorter towers. All required lights shall be shielded from adjacent properties, and no other lights shall be placed upon the tower.
- ~~Wind towers of less than 200 feet measured from finished grade shall be marked with alternating bands of aviation orange and white paint, and high-visibility sleeves installed on the outer guys with high spherical marker balls of aviation orange color.~~

Utility-Scale Ground-Mounted Renewable Energy Facilities

- A utility-scale ground-mounted ~~renewable~~ wind energy facility shall not be located within the Runway Protection Zone of any airport, as depicted in the County's airport land use plans.
- A utility-scale ground-mounted ~~renewable~~ wind energy facility shall not penetrate the imaginary surfaces (primary, approach, transitional, horizontal, and conical surfaces) as defined by the FAA Federal Aviation Regulations Part 77 to protect the use of navigable airspace.
- Wind towers of less than 200 feet in height, measured from finished grade shall be marked with alternating bands of aviation orange and white paint.
- Wind tower lighting shall be prohibited unless required by the Federal Aviation Administration or other applicable law. Any aviation-related agency or the Department of Regional Planning may impose additional requirements as deemed necessary.
- ~~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 aviation-related agency. No other lights shall be placed on such wind towers.~~

Future development under the proposed project would be required to be consistent with any applicable ALUCP. The proposed project would also require consultation with aviation-related agencies if a future project is located within the Military Installations and Operations Areas as identified by the ~~2014 Draft~~ General Plan ~~Update~~. The aviation-related agencies would review any potential impacts to ensure the safety of residents and the continued viability of military training and testing operations. Aviation-related agencies to be consulted include the FAA, U.S. Navy, Edwards Air Force Base, Air Force Plant 42, U.S. Forest Service, California Department of Transportation – Division of Aeronautics, County Department of Public Works – Aviation Division, the County Forester and Fire Warden, and County Sheriff. In addition, all small-scale wind energy systems, temporary MET towers, and utility-scale solar and wind energy facilities would require discretionary review and would be subject to CEQA. CEQA would require the analysis of potential impacts to aviation safety and measures to ensure consistency with adopted ALUCPs. Therefore, the proposed project would not result in inconsistencies with adopted ALUCPs.

Summary

Several plans within the County include policies promoting the expansion or use of renewable energy sources. By its nature, the proposed project would be consistent with all policies regarding

the promotion of renewable energy sources. The majority of the plans within the County include policies regarding development of land to preserve significant ridgelines, natural topography, views of the coast, visual compatibility, and placement of utility lines underground. As discussed previously, the proposed Zoning Code amendments include standards for development of small-scale wind energy systems and utility-scale ~~renewable energy~~structure-mounted wind energy facilities at least ~~50~~ 25 feet vertically and ~~50~~ 100 feet horizontally away from the top of any adjacent major ~~significant~~ ridgelines. For utility-scale ground-mounted wind energy facilities, the highest point of such projects would be required to be at least 50 vertical feet and 300 horizontal feet from a significant ridgeline identified in the General Plan, in an applicable Area or Community Plan, or within an applicable Community Standards District. The proposed Zoning Code amendments would also require slope setbacks for utility-scale ground-mounted wind energy facilities in the vicinity of Hillside Management Areas. Within the coastal zone, ~~small-scale wind energy systems and utility-scale renewable energy facilities~~projects would be required to conform with the applicable Local Coastal Plan~~not be permitted to impede any public view of the ocean~~. Within identified scenic corridors, visual analysis would be required of small-scale wind energy systems, temporary MET towers, and utility-scale ground-mounted renewable energy facilities to assess visual compatibility with significant viewsheds. Transmission lines, both on site and off site, would be placed underground, unless otherwise prohibited. Also, the proposed project would require that future development resulting from the proposed project follow the provisions of the zone and any supplemental district, with the limited exceptions that are described underneath the discussion of Specific Plans, Local Coastal Plans, Area Plans, and Community/Neighborhood Plans above. As noted previously, the Walnut Park Neighborhood Plan and the West Athens/Westmont Community Plan were considered but not incorporated into this discussion due to a lack of policies in these plans that pertain to the proposed project. Therefore, the proposed project would be consistent with the applicable specific plans, local coastal plans, area plans, and community plans, and impacts would be **less than significant**.

Criterion C: Would the project be inconsistent with the County zoning ordinance as applicable to the subject property?

Project-Level and Program-Level Components

The proposed project involves amending the County Zoning Code. The amendments consist of clarifications, deletions, and revisions to provide an updated set of definitions, procedures, and standards for reviewing and permitting small-scale wind and solar energy systems, temporary MET towers, and utility-scale ground-mounted and structure-mounted wind and solar energy facilities, which includes all ancillary structures. Table 3-3, Renewable Energy Permit Requirements, provides a summary of the level of discretionary review and permitting required for each proposed project component.

The proposed Zoning Code amendments contain provisions that establish the relationship between the regulations set forth in Part 15 of the Zoning Code and the regulations of the zone or supplemental district in which a renewable energy project is located. Small-scale solar energy systems, small-scale wind energy systems, temporary MET towers, and utility-scale solar and wind energy facilities would be subject to the applicable regulations of the zone or supplemental district in which the project is located. Where Part 15 regulates the same matter as the provisions of the zone or supplemental district, the provisions of Part 15 would take precedence for small-scale projects and temporary MET towers. For utility-scale projects, the more restrictive regulation would take precedence, whether the regulation is from Part 15 or from the provisions of the applicable zone or supplemental district (with the exception of wind tower height, height for structure-mounted facilities, and perimeter fence height, which would be established by the provisions of Part 15). The proposed Zoning Code amendments also require that all accessory structures constructed for utility-scale facilities must meet the applicable development standards of the zone.

~~The proposed Zoning Code amendments state that all provisions of the zone and any supplemental district of an individual property will apply to all development of small-scale wind and solar energy systems, temporary MET towers, and utility scale ground mounted and structure mounted wind and solar energy facilities, including all ancillary structures. Where the existing zoning or supplemental district and the proposed Zoning Code amendments provide regulations for the same item, the stricter regulation would apply. Therefore,~~ The proposed project consists of amendments to Part 15 the Zoning Code and contains provisions that establish the relationship between Part 15 and the regulations for specific zones or supplemental districts. As such, the proposed project is consistent with the County Zoning Code, and impacts would be **less than significant**.

Criterion D: Would the project conflict with Hillside Management criteria, Significant Ecological Areas (SEA) conformance criteria, or other applicable land use criteria?

Project-Level and Program-Level Components

The proposed project would affect all land within the County's jurisdiction. As such, the proposed project would include land subject to Hillside Management criteria, SEA conformance criteria, and any other applicable land use criteria within the County. As discussed under Criterion C, the proposed amendments to the Zoning Code include standards for existing zoning and supplemental district regulations. Additionally, all projects would need to comply with the Hillside Management and SEA conformance criteria, unless those criteria otherwise exempt a project due to size or location. ~~(which reflect Hillside Management and SEA conformance criteria), which would apply to the~~

~~development of small scale wind and solar energy systems, temporary MET towers, and utility scale ground mounted and structure mounted wind and solar energy facilities and all ancillary structures; refer to Appendix A for the full text of the proposed Zoning Code amendments.~~ Should the Hillside Management and SEA conformance criteria require additional setbacks, height limitations, or other criteria beyond the provisions of the proposed Zoning Code amendments, the ~~supplemental land use criteria~~Hillside Management or SEA regulations would apply. It should also be noted that the proposed project would prohibit utility-scale ground-mounted solar and wind energy facilities in County-designated SEAs. Therefore, the proposed project would be consistent with all applicable land use criteria, and impacts would be **less than significant**.

4.10.5 Level of Significance Before Mitigation

No significant impacts to land use would occur as a result of the proposed project.

4.10.6 Mitigation Measures

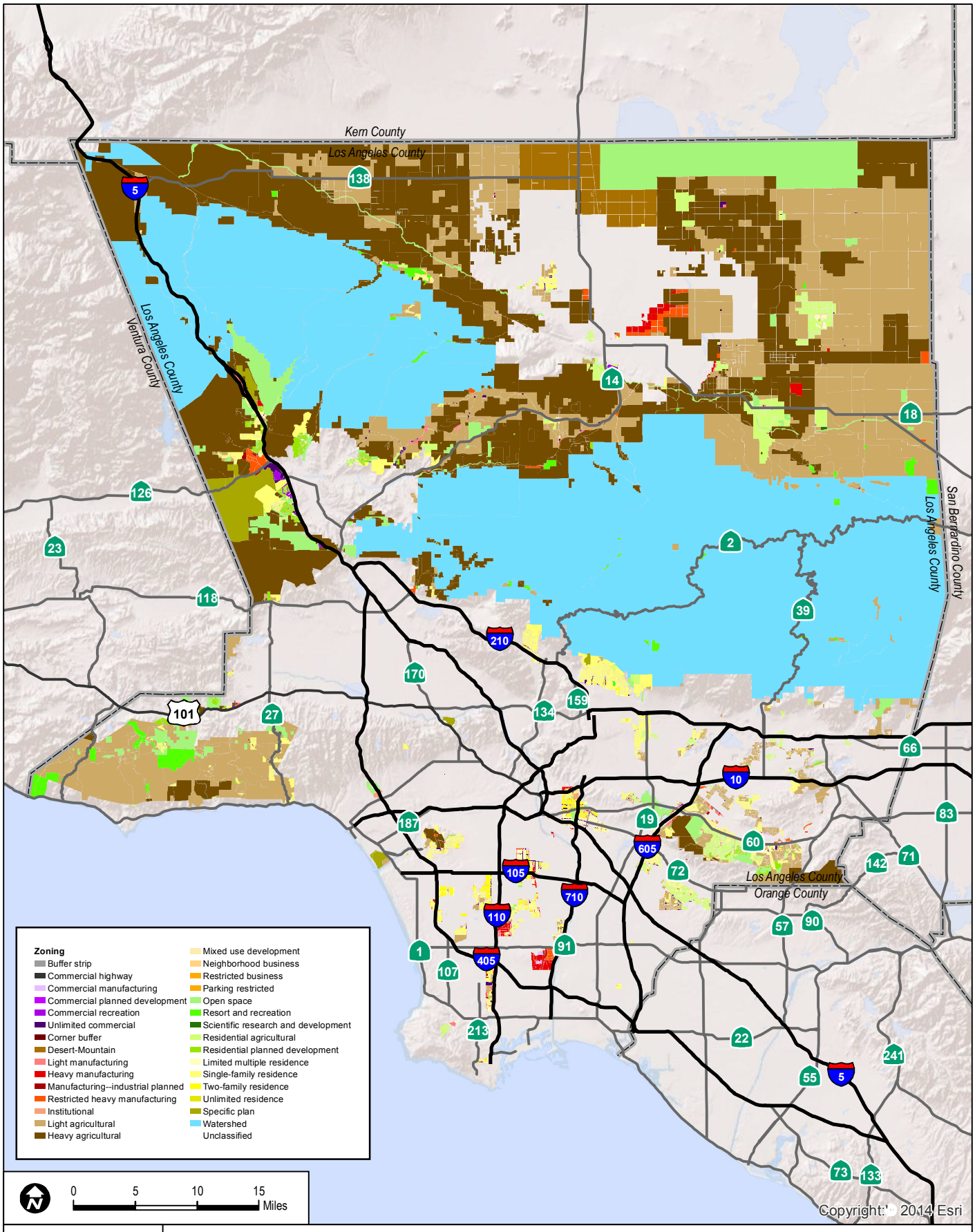
No significant impacts to land use would occur; therefore, no mitigation measures are required.

4.10.7 Level of Significance After Mitigation

As stated above, the proposed project would not result in significant impacts to land use, and no mitigation measures are required. Impacts associated with the proposed project would remain less than significant.

Table 4.10-1
Planning Areas by Geographical Category

Geographical Category	Planning Area (Existing Adopted General Plan)	Planning Area (~~2014~~ 2015 Draft General Plan Update)
Antelope Valley	Antelope Valley Planning Area	Antelope Valley Planning Area
Coastal Islands	Channel Islands Planning Area	Coastal Islands Planning Area
Unincorporated urban islands	East San Gabriel Valley Planning Area San Fernando Valley Planning Area Santa Clarita Valley Planning Area West San Gabriel Valley Planning Area Malibu/Santa Monica Mountains Planning Area West Planning Area Central Planning Area East Central Planning Area Southeast Planning Area South Planning Area Southwest Planning Area Burbank/Glendale Planning Area	East San Gabriel Valley Planning Area San Fernando Valley Planning Area Santa Clarita Valley Planning Area West San Gabriel Valley Planning Area Santa Monica Mountains Planning Area Gateway Planning Area Metro Planning Area South Bay Planning Area Westside Planning Area



DUDEK

8124-01

SOURCE: Los Angeles County 2014

FIGURE 4.10-1

Existing Zoning Map

Los Angeles County Renewable Energy Ordinance EIR

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4.11 MINERAL RESOURCES

This section assesses general mineral resource conditions in the County of Los Angeles (County), identifies associated regulatory requirements, and evaluates potential impacts of the proposed project. The information used in this analysis is general in nature and is derived from the most readily available information in applicable resource and planning documents.

4.11.1 Existing Conditions

Key mineral resources in the County consist of aggregate materials and oil. Aggregate materials include sand, gravel, and other construction materials. The California Geological Survey identified land areas throughout the state that contain or may contain regionally important aggregate resources. The County includes several areas that have been designated by the California Geological Survey as being significant areas of aggregate resources.

Mineral Land Classification

State law requires the State Geologist to identify and map the non-fuel mineral resources of the state. To implement this law, the State Geologist developed the California Mineral Land Classification System. Land in the state is classified using numbered Mineral Resource Zones (MRZs), defined as follows:

- **MRZ-1:** Areas where geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2:** Areas where geologic information indicates significant measured or indicated mineral resources are present.
- **MRZ-3:** Areas containing mineral deposits that may qualify as mineral resources, but the significance cannot be evaluated from available data.
- **MRZ-4:** Areas where geologic information does not rule out either the presence or absence of mineral resources.
- **Scientific Resource Zones:** Areas that contain unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance.
- **Identified Resource Areas:** County or State Division of Mines and Geology identified areas where adequate production and information indicates that significant minerals are present.

Within the County, MRZ-2 areas have been identified primarily in the Antelope Valley, Santa Clarita Valley, San Fernando Valley, and San Gabriel Valley (see Figure 4.11-1, Mineral Resources). There are 29,282 acres of unincorporated County lands designated MRZ-2. This is approximately 2% of the total unincorporated area of the County.

Production-Consumption Regions

To assist in classifying mineral land resources, the California Mineral Resources project divides land into Production–Consumption (P-C) regions. There are seven P-C regions entirely or partly within the County:

- Saugus–Newhall P-C Region
- San Fernando Valley P-C Region
- Palmdale P-C Region
- San Gabriel Valley P-C Region
- Orange County–Temescal Valley P-C Region
- Simi P-C Region
- Claremont–Upland P-C Region.

The San Fernando Valley, San Gabriel Valley, Saugus–Newhall, and Palmdale P-C Regions are entirely within the County and encompass most of the land within the County. The Claremont-Upland, Orange County–Temescal Valley, and Simi P-C Regions mainly cover land in adjacent counties, with small portions located in the County of Los Angeles (Division of Mines and Geology 1994). The California Geological Survey has created maps for each of the P-C regions showing the mineral land classification for Portland cement concrete aggregate. More detailed maps are produced for areas of particular importance for mineral resources, such as the Fish Canyon Quarry in Azusa.

Mineral Resource Zone 2 Areas in the County

Table 4.11-1, Mineral Resource Zone 2 Areas in the County, shows major MRZ-2 areas in the County and the acreages of these areas per Planning Area (see Figure 3-3, Planning Areas, in Chapter 3, Project Description, for the Planning Area boundaries).

Many MRZ-2 areas are developed with residential or commercial structures, while some remain in open space or in mineral production.

Oil and Gas Extraction Activities

Oil extraction activities are primarily concentrated in the southern portions of the County, extending from the City of Long Beach and the unincorporated community of Rowland Heights in the east to the City of Los Angeles in the west. In 2012, there were 3,690 active oil and gas wells in the County (DOGGR 2013a).

4.11.2 Relevant Plans, Policies, and Ordinances

Federal

Mining and Mineral Policy Act

The Mining and Mineral Policy Act of 1970 is intended to foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources. This statute established modern federal policy regarding mineral resources in the United States, and it encompasses both hard rock mining and oil and natural gas production. The act applies to all minerals, including sand and gravel, geothermal, coal, and oil and natural gas, that are subject to Department of Interior jurisdiction, including Bureau of Land Management lands.

California Desert Conservation Area Plan

In 1976, Congress required the preparation of a comprehensive, long-range plan for the California Desert Conservation Area. The purpose of the plan is to establish guidance for the management of the public lands of the California desert by the Bureau of Land Management. The California Desert Conservation Area Plan includes a Geology, Energy, and Mineral Resources Element, which includes the goals of assuring the availability of known mineral resource lands for exploration and development, and encouraging the development of mineral resources in a manner that satisfies national and local needs and provides for economically and environmentally sound exploration, extraction, and reclamation processes (BLM 1980).

State

California Surface Mining and Reclamation Act

Under the California Surface Mining and Reclamation Act of 1975, MRZs are defined by the State Geologist to classify land according to its level of significance as a mineral resource. MRZs are used to help identify and protect state mineral resources from urban expansion or other irreversible land uses that might preclude mineral extraction. The definitions of the MRZs are included in Section 4.11.1 of this document.

Department of Conservation, Division of Oil, Gas, and Geothermal Resources

The Division of Oil, Gas, and Geothermal Resources is a subdivision of the California Department of Conservation. The Division of Oil, Gas, and Geothermal Resources oversees the drilling, operation, maintenance, and closing of oil, natural gas, and geothermal wells for the purpose of preventing damage to the environment, health, property, and oil, gas, and geothermal

reservoirs. It regulates oil and gas extraction activities consistent with state regulations that include Section 3000 et seq. of the California Public Resources Code and Title 14, Division 2, Chapter 4 of the California Code of Regulations (DOGGR 2013b).

Local

County of Los Angeles General Plan

The existing adopted General Plan provides guidance for the preservation of mineral resources and identifies the major local mineral resources as oil and deposits of rock, sand, and gravel. The existing adopted General Plan also includes area plans, community plans, and coastal land use plans that provide goals, policies, and recommendations to guide development of specific regions within the County. These subregional plans identify a variety of specific planning considerations that may include guidelines for protecting mineral resources through land use policy. The ~~2014~~ 2015 Draft General Plan Update (County of Los Angeles ~~2014~~2015) also includes guidance for preservation of mineral resources, as described in the following subsection.

Conservation and Open Space Element

The ~~2014~~ 2015 Draft General Plan Update's Conservation and Natural Resources Element includes a list of four major MRZ-2 zones within the unincorporated County, along with the estimated year of depletion of these reserves. The Conservation and Natural Resources Element also characterizes oil and gas production activities within the County, which occur in the Baldwin Hills and the Santa Clarita Valley. The goals and policies for mineral and energy resources are provided in C/NR 10.1 through C/NR 12.2 of the Conservation and Natural Resources Element. Relevant policies aim to protect MRZ-2s and access to MRZ-2s from development, discourage incompatible adjacent land uses, and require the reclamation of abandoned surface mines to productive second uses (County of Los Angeles 2015~~2014~~).

Los Angeles County Code – Community Standards Districts

The County has established Community Standards Districts to implement development standards contained in an adopted neighborhood, community, area, specific, or local coastal plan, or to provide a way to addresses issues that are specific to a particular area. The standards for these Community Standards Districts are set forth in Chapter 22.44 of the County Code. Two Community Standards Districts have been established to provide standards for mineral extraction activities: the Baldwin Hills Community Standards District and the West Rancho Dominguez–Victoria Community Standards District. Both of these areas contain oil and natural gas facilities. Standards for the Baldwin Hills Community Standards District state that they are intended, in part, to ensure that oil field operations are "conducted in harmony with adjacent land uses" (L.A. County Code, Ch. 22.44).

4.11.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to mineral resources are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

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.

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.

4.11.4 Impacts Analysis

Criterion A: ***Would the project 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?***

Criterion B: ***Would the project 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?***

As displayed in Figure 4.11-1 and as characterized in Section 4.11.1, the unincorporated areas of the County include lands with known mineral resources (MRZ-2 areas), as well as lands currently being used for oil and gas extraction. Although MRZ-2 lands are limited relative to the total land area of the unincorporated County, future projects could preclude the use of these areas for mineral extraction if they prevented such lands from being used for mineral extraction in the future and/or if they removed any lands from mineral production that are currently in mineral production. This could occur if permanent development were placed on these lands in areas that had previously been available for mineral production.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or California Environmental Quality Act (CEQA) review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA~~

~~review on a project specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

A small-scale solar energy system is defined as a system where solar resources are used to generate energy primarily for on-site use. Such a system may be affixed either to the ground or to a structure other than the system's mechanical support structure, such as a building or carport. A utility-scale structure-mounted solar energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where solar energy is used to generate power primarily for off-site use. Utility-scale structure-mounted solar facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include but are not limited to solar collector arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff; therefore, they do not require operations and maintenance buildings. As a result, structure-mounted solar energy systems and facilities (small scale and utility scale) are anticipated to require minimal ground disturbance, if any. Such systems and facilities would not remove any lands from mineral production or preclude such lands from being developed with mineral production land uses in the future. As such, any future structure-mounted solar energy system or facility would not result in the loss of availability of regionally or locally important mineral resources; **no impact** would occur.

Future small-scale ground-mounted solar energy systems would potentially cause impacts in the event that they were located on land in mineral production or land that had the potential to be developed with mineral extraction uses. However, this is unlikely to occur because MRZ-2 areas

consist of approximately 2% of the area of the unincorporated County and oil and gas resource areas are primarily located within incorporated cities (see Figure 4.11-1). Furthermore, small-scale ground-mounted solar energy systems are limited in size by the proposed Zoning Code amendments to be a maximum of 25% of the lot or parcel of land, or 2.5 acres, whichever is less. Therefore, in the unlikely event that such systems were to be constructed in an MRZ-2 area or in an area with oil and gas resources, the system would only preclude mineral extraction activities on a maximum of 25% of the parcel or lot or 2.5 acres of the lot, whichever is less. While many types of the development would be incompatible with mineral extraction, photovoltaic panels would not be incompatible with adjacent or nearby mineral extraction activities. For these reasons, small-scale ground-mounted solar energy systems would not lead to substantial losses in the availability of regionally or locally important mineral resources. Impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Small-scale wind energy systems are defined as systems where wind resources are used to generate direct electrical energy primarily for on-site use. Such systems may be affixed to either the ground or to a structure other than the system's mechanical support structure, such as a building or carport. Future small-scale structure-mounted wind energy systems would not result in impacts to known mineral resources of regional or local importance because they are anticipated to require minimal ground disturbance, if any. Such systems would not remove any lands from mineral production or preclude such lands from being developed with mineral production land uses in the future. As such, any future structure-mounted wind energy system would not result in the loss of availability of regionally or locally important mineral resources; **no impact** would occur.

Future small-scale ground-mounted wind energy systems and temporary MET towers may require ground disturbance consisting of minor grading to level the surface for the construction of towers and concrete foundations, which would potentially cause impacts in the event that the structures were located on land in mineral production or land that had the potential to be developed with mineral extraction uses. This is unlikely to occur, however, because MRZ-2 areas consist of approximately 2% of the area of the unincorporated County and oil and gas resource areas are primarily located within incorporated cities (see Figure 4.11-1). ~~Additionally, the proposed Zoning Code amendments allow no more than two wind towers for every 5 gross acres~~

~~of land. Due to the vertical orientation of wind turbines and temporary MET towers, installing such equipment at a maximum density of two per 5 gross acres would not substantially reduce the amount of land on the site available for mineral production.~~ Furthermore, wind energy equipment such as turbines and temporary MET towers would not be incompatible with adjacent or nearby mineral extraction activities. Additionally, future projects would be required to undergo project-specific CEQA review through the discretionary permit process prior to approval. For these reasons, impacts to mineral resources would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

In the event utility-scale ground-mounted renewable energy facilities (solar and wind) were located on sites with locally or regionally important mineral resources, such facilities would involve ground disturbance and site development to the extent that mineral resource production activities may be precluded. The development of utility-scale ground-mounted facilities on sites with locally or regionally important mineral resources would be unlikely to occur because MRZ-2 areas consist of approximately 2% of the area of the unincorporated County and oil and gas resource areas are primarily located within incorporated cities (see Figure 4.11-1). Additionally, projects would be required to undergo project-specific CEQA review through the CUP process prior to approval. As part of the CEQA review process, future projects would be required to implement measures to minimize impacts to mineral resources, as necessary. Additionally, if a future large wind turbine project is located near or within an area that contains mineral resources, a mineral resources technical report may be required at the discretion of the County. The technical report would assess the site-specific conditions and include mitigation measures, as necessary. Because MRZ-2 areas are limited in the County and utility-scale ground-mounted facilities are not likely to be located on these lands, and because they would undergo project-specific CEQA review and require implementation of measures to minimize any potential impacts to mineral resources, utility-scale ground-mounted facilities would result in **less than significant** impacts to mineral resources.

Utility-Scale Structure-Mounted Wind Energy Facilities

A utility-scale structure-mounted wind energy facility is defined as a facility affixed to a structure that is separate from the facility's mechanical support structure, such as a building or carport, where wind energy is used to generate power primarily for off-site use. Utility-scale structure-mounted wind energy facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include but are not limited to wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic

infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted wind energy facilities are typically monitored and operated remotely or by in-house maintenance staff; therefore, they do not require operations and maintenance buildings. As a result, utility-scale structure-mounted wind energy facilities are anticipated to require minimal ground disturbance, if any. Such facilities would not remove any lands from mineral production or preclude such lands from being developed with mineral production land uses in the future. As such, any future structure-mounted wind energy facility would not result in the loss of availability of regionally or locally important mineral resources; **no impact** would occur.

4.11.5 Level of Significance Before Mitigation

No significant impacts to mineral resources would occur as a result of the proposed project.

4.11.6 Mitigation Measures

No significant impacts to mineral resources would occur; therefore, no mitigation measures are required.

4.11.7 Level of Significance After Mitigation

Implementation of the proposed project would not result in significant impacts associated with mineral resources. The proposed project would not result in the loss of a known or locally important mineral resource.

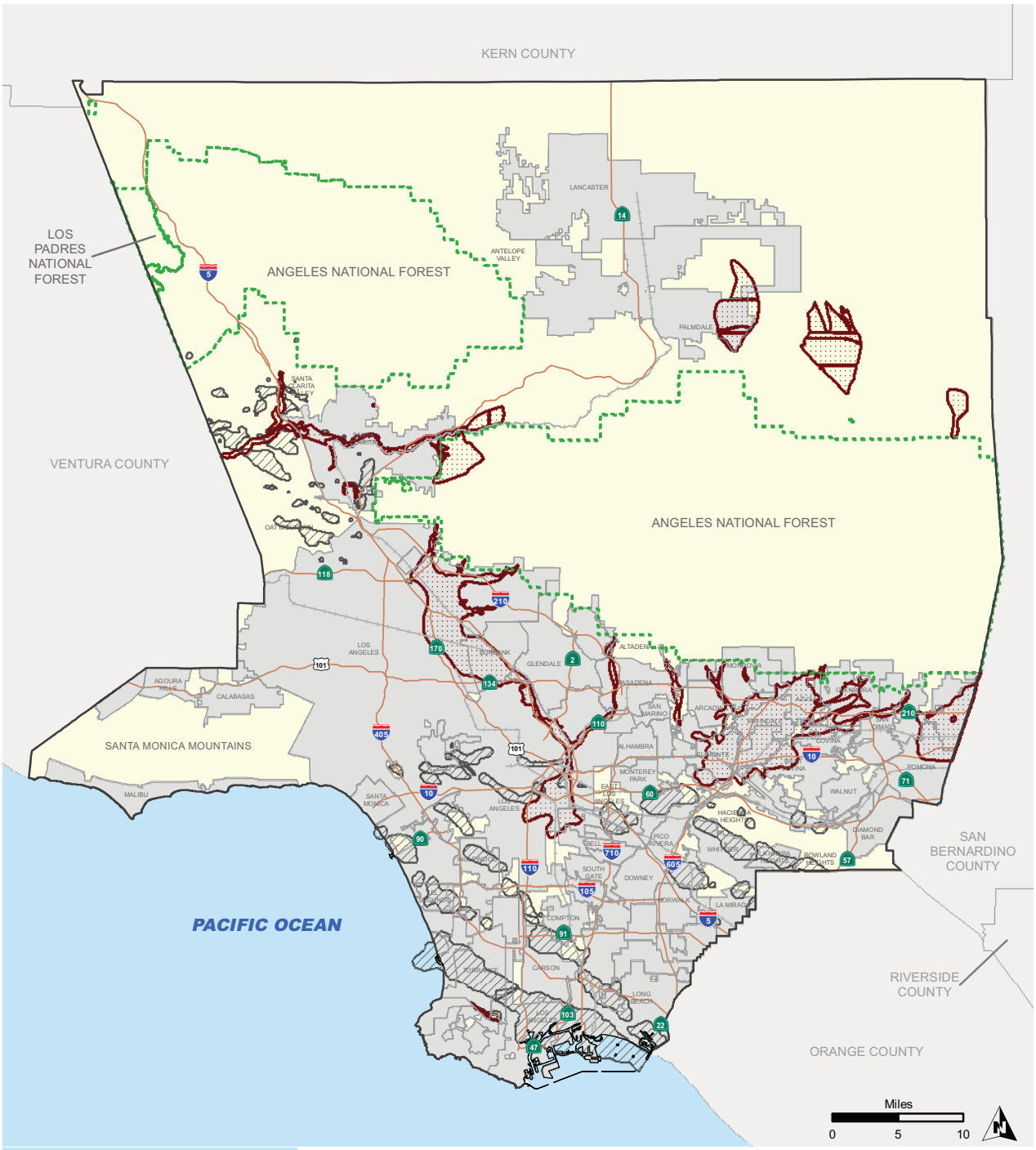
Table 4.11-1
Mineral Resource Zone 2 Areas in the County

Planning Area	Production-Consumption Region	Description	Acres (unincorporated areas)
Antelope Valley	Palmdale	There are three MRZ-2 areas. One is partially in the City of Palmdale and the other two are east of the City of Palmdale.	15,882
Santa Clarita Valley	Saugus–Newhall	The MRZ-2 area extends east–west along much of the Santa Clarita River, with branches to the north and south.	9,745

Table 4.11-1
Mineral Resource Zone 2 Areas in the County

Planning Area	Production-Consumption Region	Description	Acres (unincorporated areas)
San Fernando Valley	San Fernando Valley	The MRZ-2 area is located on the eastern end of the San Fernando Valley and extends south along the Los Angeles River, with two branches at the north end.	103
East San Gabriel Valley and West San Gabriel Valley	San Gabriel Valley	Much of the central San Gabriel Valley is designated as an MRZ-2, with three smaller MRZ-2 areas near the San Gabriel Mountain foothills.	East San Gabriel Valley: 2,158 West San Gabriel Valley: 1,228 Total: 3,386
Metro	San Gabriel Valley	Parts of central and south-central Los Angeles are designated as an MRZ-2.	165
		Total acres, unincorporated areas	**29,282**

Source: CGS 2013.



Source: Department of Regional Planning, March, 2014. Additional Sources: California Energy Commission, California Department of Conservation

DUDEK

8124-01

FIGURE 4.11-1
Mineral Resources

Los Angeles County Renewable Energy Ordinance EIR

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4.12 NOISE

This section describes the existing noise setting of the project area, identifies associated regulatory requirements, examines potential noise and vibration impacts resulting from construction and operational activities that have the potential to result from the adoption of the proposed project, and identifies any mitigation measures related to impacts from the proposed project. Dudek reviewed and considered the ~~2014~~ 2015 Draft General Plan Update and Draft and Final Environmental Impact Report (EIR); however, since the ~~2014~~ 2015 Draft General Plan Update and ~~Draft~~ associated EIR have not yet been ~~approved and~~ adopted by the County of Los Angeles (County) Board of Supervisors, certain background information discussed herein is used for informational purposes only.[1]

4.12.1 Existing Conditions

Ambient Noise Setting

The typical community noise environment is made up of background noise (also called ambient noise) and higher, intrusive levels of noise, including impulsive and pure tone noise. The County defines these four types of noise as follows:

- **Ambient noise** – The composite of noise from all sources both near and far. Considered the normal or existing level of environmental noise at a given location.
- **Intrusive noise** – Noise that can be perceived over and above the existing ambient noise. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, tonal or informational content, and the ambient noise level.
    - **Impulsive noise** – A type of intrusive noise that results from impacts or explosions. The County Noise Control Ordinance defines impulsive noise as a sound of short duration that is usually less than 1 second and of high intensity, with an abrupt onset and rapid decay.
    - **Pure tone noise** – The County Noise Control Ordinance defines pure tone noise as any sound that can be judged as audible as a single pitch or a set of single pitches by the health officer. A pure tone shall exist if the one-third octave band sound-pressure level in the band with the tone exceeds the arithmetic average of the sound-pressure levels of the two contiguous one-third octave bands by 5 decibels (dB) for center

[1] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

frequencies of 500 hertz (Hz) and above, by 8 dB for center frequencies between 160 and 400 Hz, and by 15 dB for center frequencies less than or equal to 125 Hz.

The unincorporated County contains urbanized and rural environments, both of which experience noise disturbances. The major sources of noise in the unincorporated County come from transportation systems, such as commercial and private airports, rail and bus networks, and the regional freeway and highway system. Urban residential areas are also affected by commercial and industrial spillover noise (County of Los Angeles 2014a, Chapter 11). Other major sources of noise have historically been associated with industrial uses, such as manufacturing plants. Non-transportation noise sources include industrial processing; mechanical equipment; pump stations; and heating, ventilation, and air conditioning equipment. Some non-transportation sources are not stationary but are typically assessed as point or area sources due to the limited area in which they operate, such as truck deliveries, agricultural field machinery, and mining equipment.

Characteristics of Noise

Noise is typically defined as unwanted sound. Sounds are perceived based on their loudness (i.e., volume or sound pressure level) or pitch (i.e., tonal or frequency content). The standard unit of measure for sound pressure levels is the decibel. The standard unit used to describe the tonal or frequency content is the hertz. Typical frequency ranges consist of 20 to 20,000 Hz for audible noise. Frequencies below 200 Hz are typically considered to be low-frequency sound, and frequencies below 20 Hz are considered infrasound. Infrasound is generally considered to be inaudible. However, at high sound pressure levels, infrasound may be audible to some people (CMOH 2010).

To account for the pitch of sounds and the corresponding sensitivity of human hearing to them, raw sound pressure levels are adjusted with an A-weighting scheme based on frequency, which is stated in units of A-weighted decibels (dBA). Table 4.12-1, Typical A-Weighted Sound Levels from Outdoor and Indoor Sources, shows typical outdoor and indoor noise sources and their associated noise levels in A-weighted decibels.

The decibel level of a sound decreases (or attenuates) exponentially as the distance from the source of that sound increases. For a single point source such as a piece of mechanical equipment, the sound level normally decreases by about 6 dB for each doubling of distance from the source. Sound that originates from a linear source, such as a heavily traveled traffic corridor, attenuates by approximately 3 dB per doubling of distance, provided that the surrounding site conditions lack ground effects or obstacles that either scatter or reflect noise.

A given level of noise would be more or less tolerable depending on the sound level, duration of exposure, character of the noise sources, time of day during which the noise is experienced, and

activity affected by the noise. For example, noise that occurs at night tends to be more disturbing than that which occurs during the day because sleep can be disturbed. Additionally, rest at night is a critical requirement in the recovery from exposure to high noise levels during the day.

In consideration of these factors, different measures of noise exposure have been developed to quantify the extent of the effects anticipated from these activities. The indices used in this section are defined below:

- **Equivalent Continuous Noise Level (L_{eq})** – The mean of the noise level, calculated by energy averaged over the measurement period.
- **Community Noise Equivalent Level (CNEL)** – The average equivalent A-weighted sound levels during a 24-hour period, with 5 dB added to the levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the levels occurring from 10:00 p.m. to 7:00 a.m.
- **Day-Night Sound Level (L_{dn} or DNL)** – The average equivalent A-weighted sound level during a 24-hour period, with 10 dB added to the sound levels produced from 10:00 p.m. to 7:00 a.m. L_{dn} is a simplification of CNEL.

The County uses CNEL and L_{dn} as the noise metrics for its ~~2014~~ 2015 Draft General Plan Update Noise Element (County of Los Angeles ~~2014a~~2015a, Chapter 11).

Noise Effects

Noise has a significant effect on the quality of life. An individual's reaction to a particular noise depends on many factors, such as the source of the noise, its loudness relative to the background noise level, and the time of day. The reaction to noise can also be highly subjective; the perceived effect of a particular noise can vary widely among individuals in a community. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as being twice as loud. In general, a 3 dB change in community noise levels is perceivable, while 1 to 2 dB changes are generally not perceived.

Wind Turbines

The operation of solar panels does not produce noise beyond that involved with on-site electrical equipment and standard, periodic system maintenance procedures, such as removing accumulated dust and debris from photovoltaic (PV) panels through washing. Wind turbines, however, may generate low-frequency sound during operation due to the aerodynamic sound produced by the rotation of turbine blades through air. Additionally, mechanical noise can be generated by wind turbines from the turbine's internal gears. Utility-scale turbines are usually insulated to prevent mechanical noise from proliferating outside the tower. Depending on the

turbine model and wind speed, the aerodynamic noise may be perceived as a buzzing, whooshing, pulsing, or even sizzling sound. Noise from two or more turbines may create an oscillating or thumping effect that is perceived as a "wa-wa" sound (Alberts 2006). The frequency component varies with wind speed, blade pitch, and blade speed (Alberts 2006). The noise the human ear can detect from a wind turbine is dependent on the ambient noise level.

There is no universally accepted scientific method of measuring wind turbine noise. Wind turbines generate broadband noise-containing frequency components from 20 to 3,600 Hz. With respect to low-frequency noise from wind turbines, if there is a measured difference of more than 20 dB between wind turbine low-frequency sound and background sound, there is a potential for low-frequency noise to be perceived. Concerns have been raised about adverse health effects caused by wind turbine noise. Some claims have been made linking low-frequency noise to physiological impacts such as rapid heartbeat, nausea, and blurred vision. Several reviews of currently available scientific data have determined that there is no direct causal relationship between wind turbine low-frequency sound and health effects. For example, the *Wind Turbine Sound and Health Effects: An Expert Panel Review* by the American Wind Energy Association (AWEA 2009) and *The Potential Health Impact of Wind Turbines* from the Chief Medical Officer of Health (CMOH 2010) are based on literature reviews of scientific and medical databases. Both studies cite current scientific and peer-reviewed literature of wind turbine-generated sound and low-frequency sound. The cited reports all support the conclusion that there is no relationship between wind turbine sound and adverse health. Although some people living near wind turbines report symptoms such as dizziness, headaches, and sleep disturbance, the scientific evidence available to date does not demonstrate a direct causal link between wind turbine noise and adverse health effects.

Noise-Sensitive Land Uses

Noise-sensitive land uses include areas where an excessive amount of noise would interfere with normal activities. Primary noise-sensitive land uses include residential uses, public and private educational facilities, hospitals, convalescent homes, hotels/motels, daycare facilities, and passive recreational parks. Sleep disturbance is often a critical concern for noise-sensitive land uses.

Existing Noise Levels

Average community noise levels in the County were evaluated based on the projects compiled by the County of Los Angeles Department of Public Health (DPH) staff (2013) and examining ambient noise measurement data obtained for those projects. The ambient noise levels reported based on the L_{eq} noise metric generally fell between 60 and 70 dBA. Maximum sound was reported to reach levels into the middle to upper 80 dBA range (County of Los Angeles 2014b, Section 5.12).

Key noise sources in the County include military installations and operations, rail noise, aircraft noise, and on-road vehicle noise. The approximate locations and characteristics of these four primary sources are summarized below.

Military Noise

Portions of Edwards Air Force Base are located within unincorporated areas of the Antelope Valley, and a substantial portion of the undeveloped land within the air force base is used for military activities. Air Force Plant 42 is located in northern Los Angeles County in the city of Palmdale; this plant is used for the development, manufacturing, and testing of high performance aircraft. Noise from military installations and operations is primarily related to aircraft operations. Ground-based activities such as military movements or weapons training are also potential sources of military noise. Noise from military installations is generally exempt from County regulation.

Rail Noise

The County encompasses an extensive rail network that transports people and goods. There are three rail systems used for public transit in the County: Metro, Metrolink, and Amtrak. The Metro runs exclusively within the County and is operated by the Los Angeles County Metropolitan Transportation Authority (Metro). This rail network is centered in downtown Los Angeles and does not extend to the Antelope Valley, Santa Clarita Valley, or Santa Monica Mountains Planning Areas. The Metrolink is a 416-mile regional commuter rail system that is centered in downtown Los Angeles and extends outward to several neighboring counties. It extends to the Antelope Valley and Santa Clarita Valley Planning Areas and also has several branches throughout the unincorporated urban islands region. Amtrak provides interstate service from various states to Los Angeles Union Station as well as regional service between major cities to the north, south, and east throughout California. The movement of goods via rail is provided by the Southern Pacific Railway and Union Pacific Railway, which operate between the ports of Los Angeles and Long Beach and the central Los Angeles freight yard transfer stations, with connections to the transcontinental rail network. Typically, noise generated by both transit and freight rail systems is regulated by the Federal Railroad Administration. This agency provides and enforces noise and safety standards.

Aircraft Noise

There are 15 public-use airports within the County. The names of these airports and their general locations are summarized in Section 4.8, Hazards and Hazardous Materials, of the EIR. Noise from aircraft and airports is regulated by the Federal Aviation Administration (FAA). Communities with the strongest reaction to airport noise are those with business and residential uses beneath airport flight paths.

Vehicle Noise

The largest source of community noise within the County comes from vehicular travel on major roadways. The condition of road surfaces, pace of travel, and traffic congestion can contribute to the level of vehicle noise. Various roadway design features, traffic management, and traffic-calming techniques on previously approved projects have been reviewed and approved by County staff and help minimize noise from vehicular traffic.

Vibration

Ground-borne vibration propagates from the source of the vibration through the ground to adjacent buildings via surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object, measured in hertz, describes how rapidly it is oscillating. The frequencies of most ground-borne vibration that can be felt ranges from a low frequency of less than 1 Hz to a high frequency of about 200 Hz. Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance. Ground-borne vibrations generally attenuate rapidly with increasing distances from the source. The precise attenuation distance, however, depends on the intensity of the vibrations and on the surrounding soil and geologic conditions. For vibration sources such as construction activity and vehicle traffic, the region of influence is typically less than 1,000 feet from the vibration source.

Ambient and source vibration are often expressed in terms of the peak particle velocity (PPV) or root mean square (RMS) velocity in inches per second, which correlates best with human perception. The Federal Transit Administration estimates that the threshold of perception is approximately 0.0001 inch/second RMS, and the level at which continuous vibration begins to annoy people is approximately 0.001 inch/second RMS (FTA 2006).

Vibration-Sensitive Land Uses

Vibration can disrupt sensitive land uses by causing movement of buildings, rattling of windows and items inside buildings, rumbling sounds, and even property damage in extreme instances. Vibration-sensitive land uses include buildings where vibration can interfere with operations within the building, such as vibration-sensitive research and manufacturing, hospitals with vibration-sensitive equipment, and university research operations. The degree of sensitivity to vibration depends on the specific equipment that would be affected by the vibration. Residential uses are also sensitive to excessive levels of vibration of either a regular or an intermittent nature. According to the *Transit Noise and Vibration Impact Assessment* (FTA 2006), background vibration level in residential areas is typically 0.00003 inch/second RMS, which is lower than 0.0001 inch/second RMS, the threshold of perception for humans.

Vibration Sources

In the County, the primary sources of vibration are rail and truck traffic. Vibration caused by rail may be perceptible in areas adjacent to railroad lines when a train passes by. Heavy trucks hitting discontinuities in the pavement can also cause perceptible vibration. However, under normal conditions with well-maintained asphalt, vibration levels are usually not perceptible beyond the road right-of-way.

4.12.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Aviation Administration Standards

Enforced by the FAA, Title 14, Part 150 of the Code of Federal Regulations prescribes the procedures, standards, and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs. Title 14 also identifies land uses that are normally compatible with various levels of exposure to noise by individuals. It provides technical assistance to airport operators, in conjunction with other local, state, and federal authorities, to prepare and execute appropriate noise compatibility planning and implementation programs. The FAA establishes a CNEL of 65 dBA as the noise standard associated with aircraft noise.

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency has indicated that outdoor residential noise exposure of 55 to 65 dBA is acceptable when analyzing land use compatibility (EPA 1981); however, these guidelines are not regulatory. With regard to noise exposure and workers, the federal Occupational Safety and Health Administration (OSHA) establishes regulations to safeguard the hearing of workers exposed to occupational noise (Code Fed. Regs., Title 29, § 1910.95). OSHA specifies that sustained noise over 85 dBA (8-hour time-weighted average) can be a threat to workers' hearing, and if worker exposure exceeds this amount, the employer shall develop and implement a monitoring plan (Code Fed. Regs., Title 29, § 1910.95(d)(1)).

State

California Building Code

The California Building Code (Cal. Code Regs., Title 24) includes standards for noise insulation that apply to new construction projects. The purpose of these regulations is to reduce interior noise levels within structures supporting noise-sensitive uses to acceptable levels.

The noise standards in the California Building Code require acoustical studies to be conducted for proposed noise-sensitive developments such as residences, schools, or hospitals that are to be

located near major transportation noise sources, and where such noise sources would create an exterior noise level of 65 dBA CNEL or higher. The acoustical studies must show that interior noise levels in habitable rooms can be limited to acceptable levels, which are defined as 45 dBA CNEL for residential structures, schools, and hospitals.

California Noise Control Act

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, finds that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also reports a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise.

California Noise/Land Use Compatibility Matrix

The California Office of Noise Control created a land use compatibility chart as a tool for evaluating the compatibility of land uses relative to existing and future noise levels. This chart specifies normally acceptable, conditionally acceptable, and clearly unacceptable noise levels for a variety of land uses, including low-density residential, multifamily residential, hotels, school, concert halls, businesses, and industrial facilities. A conditionally acceptable designation implies that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and noise insulation features are included as part of the project design. A normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements.

California Airport Noise Standards

The 1990 California Airport Noise Standards (Cal. Code Regs., Title 21, § 5000 et seq.) are designed to cause the airport proprietor, aircraft operator, local governments, pilots, and the California Department of Transportation – Division of Aeronautics to work cooperatively to diminish noise. The regulations accomplish these ends by controlling and reducing noise in the communities in the vicinity of airports. The level of noise acceptable to a reasonable person residing in the vicinity of an airport is established as a CNEL value of 65 dBA. The limitations on airport noise in residential communities are established as follows:

A. The criterion CNEL is 65 dBA for proposed new airports and for active military airports being converted to civilian use.

B. The criterion CNEL for existing civilian airports is 65 dBA.

California Airport Land Use Planning Handbook

The *California Airport Land Use Planning Handbook* provides guidance for the assessment of noise compatibility of land uses near airports. Guidance is based on existing federal and state regulations and policies. The handbook states that 65 dBA is the basic limit of acceptable noise exposure for residential and other noise-sensitive land uses and recommends an annual CNEL standard of 60 dBA to be used for new residential development; however, this standard has been set with respect to relatively noisy urban areas and may be too high of a noise level to be appropriate as a standard for land use compatibility planning. The level of noise deemed acceptable in one community is not necessarily the same in another. A noise level above 60 dBA CNEL may be considered incompatible with some residential uses. According to the handbook, noise compatibility standards typically place primary emphasis on residential areas because residential development is one of the most noise-sensitive land uses and usually covers the greatest proportion of urban land. Three CNELs are commonly used as the limit for acceptable residential noise exposure: CNEL 65, 60, or 55 dBA. The handbook also includes normalization factors as a method for adjusting aircraft noise levels used for determining and predicting community reactions. Because the acceptable residential noise level standard may vary between communities, noise compatibility issues are addressed in the Airport Land Use Compatibility Plans (ALUCPs) prepared for individual airports.

Local

Los Angeles County Code – Noise Control Ordinance

The Noise Control Ordinance is intended to control unnecessary, excessive, and annoying noise and vibration. This ordinance defines terms, identifies noise zones, provides standards for interior and exterior noise, hours for noise regulation, and particular noise thresholds for construction activities.

Construction Timing

Section 12.08.440 of the County Noise Control Ordinance includes times during which construction noise is permitted. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound creates a noise disturbance across a residential or commercial real-property line is generally prohibited.

Construction Noise

Noise produced by construction equipment is regulated through Section 12.08.440 of the County Noise Control Ordinance. Construction activities should be conducted in such a way that the

maximum noise levels at the affected buildings do not exceed those listed in Table 4.12-2, Maximum Noise Levels for Construction Noise from Mobile Equipment, or Table 4.12-3, Maximum Noise Levels for Construction Noise from Stationary Equipment. A 5 dB penalty is applied to noises that are considered impulsive or pure tone. Impulsive noises are defined in the Los Angeles (L.A.) County Code as a sound of short duration, usually less than 1 second and of high intensity, that has an abrupt onset and a rapid decay. An example of an impulsive noise is pile driving. Pure tone noise is any sound that can be judged as audible as a single pitch or a set of single pitches by the health officer. Pure tone noises are typical for large diesel engines in trains, ships, and power plants; however, they may also result from machinery with rotating parts such as motors, gearboxes, fans, and pumps, particularly if the machinery malfunctions. Additionally, the ordinance requires that all mobile or stationary internal combustion engine-powered equipment or machinery must be equipped with suitable exhaust and air-intake silencers in proper working order.

Community Noise Criteria

Section 12.08.390 establishes exterior noise standards for the County, divided based on land use type. These standards are shown in Table 4.12-4, Exterior Noise Standards, and apply to all receptor properties, based on the zone in which the property is located. Per Section 12.08.570, construction activities are exempted from the standards in Section 12.08.390 and instead are required to comply with the provisions of Section 12.08.440, which are described in the previous section. It should also be noted that Section 12.08.410 of the Community Noise Criteria in the County's Noise Control Ordinance states that for any source of sound that emits a pure tone or impulsive noise, the noise levels as set forth in Section 12.08.390 shall be reduced by 5 dB.

Vibration

Section 12.08.560 of the L.A. County Code prohibits operating or permitting the operation of any device that creates vibration that is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if in a public space or public right-of-way. The perception threshold is a motion velocity of 0.01 PPV (inch/second) over the range of 1 to 100 Hz.

Los Angeles County Airport Land Use Plan

The Los Angeles County Airport Land Use Plan (ALUP) was adopted by the Airport Land Use Commission (ALUC) in 1991 and revised in 2004. The County's ALUP addresses compatibility between airports and surrounding land uses by addressing noise, overflight, safety, and airspace protection concerns to minimize the public's exposure to excessive noise and safety hazards

within Airport Influence Areas. The County's ALUP covers all airports within the County's jurisdictions except for the General William J. Fox Airfield, which has its own ALUCP.

General William J. Fox Airfield Airport Land Use Compatibility Plan

The previous General William J. Fox Airfield ALUCP was originally adopted by the County ALUC in 1991. However, due to the brevity of the plan and the recognition by the ALUC and its staff that a more comprehensive approach to airport land use compatibility planning was needed in the County, the updated General William J. Fox Airfield ALUCP was adopted by the County ALUC in 2004. The updated General William J. Fox Airfield ALUCP includes land use compatibility policies applicable to future development near the airport to ensure that future land uses in the surrounding area would be compatible with potential long-range aircraft activity at the airport.

Existing General Plan Noise Element

The Noise Element of the existing adopted General Plan was adopted in 1975. The Noise Element does not provide standards for interior and exterior noise; rather, it is mainly concerned with noise generated by transportation. The Noise Element discusses the effects of noise and outlines a general noise control program. The Noise Element refers to the U.S. Department of Housing and Urban Development noise program and contains noise contour maps. The existing adopted Noise Elements of some community plans, such as the Hacienda Heights Community Plan, contain their own noise standards for interior noise.

~~2014~~ 2015 Draft General Plan Update Noise Element

The ~~2014~~ 2015 Draft General Plan Update incorporates the noise standards from Sections 12.08.010–12.12.100 of the L.A. County Code, which are listed above. It also sets forth the goal of reducing excessive noise impacts and proposes a variety of policies to achieve this goal. Policies include using land uses to buffer noise-sensitive uses from sources of adverse noise impacts, promoting land use compatibility, and promoting noise abatement programs in an effort to maintain acceptable levels of noise as defined in the County Exterior Noise Standards and other applicable noise standards. The Noise Element Implementation Program consists of a County-wide Noise Assessment Survey/County Noise Control Ordinance Update, County-wide Noise Mapping, and a Noise Abatement Program. ~~Sections 12.08.010–12.12.100 of the L.A. County Code noise standards would be effective once the 2014 Draft General Plan Update has been approved and adopted by the County Board of Supervisors.~~

4.12.3 Thresholds of Significance

The significance criteria used to evaluate the project's noise impacts are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would result in:

A. Exposure of persons to, or generation of, noise levels in excess of standards established in the County General Plan or Noise Control Ordinance (L.A. County Code, Title 12, Chapter 12.08), or applicable standards of other agencies.

B. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

C. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from parking areas.

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.

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, the project would expose people residing or working in the project area to excessive noise levels.

F. For a project within the vicinity of a private airstrip, the project would expose people residing or working in the project area to excessive noise levels.

4.12.4 Impacts Analysis

Criterion A: Would the project result in exposure of persons to, or generation of, noise levels in excess of standards established in the County General Plan or Noise Control Ordinance (L.A. County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?

Project-Level Components

The proposed project would allow for development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or California Environmental Quality Act (CEQA) review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility scale structure-mounted solar energy facilities proposed in Single Family Residence (R-1) zones would require a~~

~~CUP and would therefore undergo future CEQA review on a project specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Construction

Construction of small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities would involve placement of solar equipment such as PV panels on existing structures. Utility-scale structure-mounted solar facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include solar collector arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in industrial or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations if there is an increase in load, but these upgrades would most likely be contained within the existing fence line. In addition, the California Public Utilities Commission has jurisdiction and regulates such upgrades to substations. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. As a result, these facilities are anticipated to require minimal ground disturbance or heavy construction equipment, if any.

Minimal construction vehicles and construction equipment would be required for both small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities. The timing of construction and the noise made by equipment, if any were necessary, would be required to comply with the regulations in the County Noise Control Ordinance, described in Section 4.12.2. Although it would be unlikely that construction of such projects would expose workers to elevated noise levels, in the event that this were to occur, construction contractors or the entity coordinating installation of the system would need to ensure compliance with the California OSHA (Cal/OSHA) regulations for worker safety relative to noise exposure (hereafter referred to as Cal/OSHA construction worker safety standards). The Cal/OSHA construction worker safety standards establish a time-weighted noise exposure limit of 90 dBA averaged over 8 hours. Noise source controls, administrative procedures, or worker hearing protection must be provided if worker

noise exposure would exceed the 90 dBA limit. Construction of structure-mounted solar energy systems, however, would not be anticipated to exceed 90 dBA. Due to the limited nature of construction activities and due to required compliance with the County Noise Control Ordinance, construction of small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities would result in a **less than significant** impact relative to generation of noise in excess of noise standards, regulations, or ordinances.

Construction of small-scale ground-mounted solar energy systems would involve placement of solar equipment such as PV panels on concrete foundations on the ground. The proposed project limits the size of small-scale structure-mounted solar energy systems to a maximum coverage of 25% of the lot or parcel, or 2.5 acres, whichever is less. Additionally, these systems are required to provide energy primarily for on-site uses, and therefore would be sized appropriately. For these reasons, the construction process for future systems would involve minor ground disturbance activities and/or excavation to clear the site, followed by pouring concrete footing and placing an engineered rack on the footing. Although poured concrete footings would be anticipated to be the most common, feasible, and desirable method of anchoring the rack to the ground, there is the potential that racks could be mounted on piles, requiring pile driving for installation. In the event that pile driving and/or other ground-disturbing activities were to be associated with any future small-scale ground-mounted solar energy systems, such activities would be required to comply with the regulations of the County Noise Control Ordinance, including those that regulate impulsive noise. Furthermore, due to the anticipated limited size of such systems (maximum of 25% lot or parcel coverage, or 2.5 acres, whichever is less), only one to several steel piles would likely be installed, and ground disturbance would be limited. Noise events caused by pile driving would be of short duration and minimal in number. Pile driving is not expected to be a common method of installation, and noise produced by ground-disturbing activities or excavation would also be uncommon and minimal. Additionally, construction processes would be required to comply with Cal/OSHA construction worker safety standards. Due to the limited nature of construction activities and due to required compliance with the County Noise Control Ordinance, construction of small-scale ground-mounted solar energy systems would result in a **less than significant** impact relative to generation of noise in excess of noise standards, regulations, or ordinances.

Operation

Operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities could include converters and inverters. A direct current (DC) converter may be used to convert the voltage from the panel or array to something close to the grid voltage, as well as to maximize the power extracted from the panels. An inverter is then used to convert from DC to alternating current (AC) and sync it up with the grid. The converters and inverters would operate

during the daytime hours when energy is generated to the grid. Noise from the converters and inverters would be required to comply with the County Noise Control Ordinance.

Maintenance activities for small-scale solar systems usually occur every 1 to 3 years, or as needs arise, and may not require vehicle trips. Often, annual maintenance may consist of the property owner visually inspecting systems and checking that bearings are lubricated. If additional maintenance is required, it is anticipated that one vehicle and a small amount of equipment would access the site. Utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Traffic and other activity generated during operations would be limited to cleaning and inspection once or twice annually. For these reasons, operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would cause little to no noise associated with added vehicle traffic. Additionally, maintenance activities for these projects, which would be limited to washing the systems to remove any accumulated dust or debris and inspecting the system as needed, would not produce noise beyond what is typically produced by household gardening or outdoor cleaning activities. Operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities, along with any proposed generators, would undergo review by County planning staff during the plan check process to ensure that the PV panels, converters, and inverters do not generate noise levels in exceedance of established noise standards. Therefore, operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would result in a **less than significant** impact relative to generation of noise in excess of noise standards, regulations, or ordinances.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Construction

Impacts related to construction of small-scale structure-mounted wind energy systems would be similar to those of small-scale structure-mounted solar energy systems. Due to the limited nature of construction activities required and due to required compliance with the County Noise Control Ordinance, construction of small-scale structure-mounted wind energy systems would result in a **less than significant** impact relative to generation of noise in excess of noise standards, regulations, or ordinances.

Impacts related to construction of small-scale ground-mounted wind energy systems and temporary MET towers would be similar to those of small-scale ground-mounted solar energy systems. Further, temporary MET towers would generally consist of one to several towers, and small-scale ground-mounted wind energy systems would be limited in size by the capacity limit ~~specified in the proposed Zoning Code amendments~~ (the specified capacity limit of 50 kilowatts or less is expected to result in systems of one to several wind turbines). In the event that pile driving and/or other ground-disturbing activities were to occur, such activities would be required to comply with the regulations of the County Noise Control Ordinance, including those that regulate impulsive noise. Therefore, due to the limited nature of construction activities and due to required compliance with the County Noise Control Ordinance and other applicable noise regulations, such as Cal/OSHA construction worker safety standards, construction of small-scale ground-mounted wind energy systems and temporary MET towers would result in a **less than significant** impact relative to generation of noise in excess of noise standards, regulations, or ordinances.

Operation

In accordance with the existing noise requirements in Part 15 of the Zoning Code, which would remain in place under the proposed project, ~~the proposed Zoning Code amendments,~~ noise from a small-scale wind turbine would not exceed 60 dBA SEL (single event noise level) as measured from the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. The sound from a wind turbine at distances between 1,000 and 2,000 feet is generally within 40 to 50 dBA (AWEA 2009). The existing setback requirements in Part 15 of the Zoning Code would remain in place under the proposed project and would require small-scale wind energy systems to be setback from property lines by a distance equivalent to the height of the facility, including any wind turbine generator, wind-measuring devices, and the highest vertical extent of any blades. Because tower heights would generally be 35 to 85 feet, a wind turbine could potentially be located approximately 35 to 85 feet from a sensitive noise receptor such as a residence, in the event that the sensitive receptor were to be located at the property line. ~~However, because the setback requirements for wind turbines from on- or off-site residences or habitable structures would be 1.5 times the system height, and because system heights would generally be 35 to 85 feet, a wind turbine could potentially be located from 50 to 130 feet from a sensitive noise receptor such as a residence.~~ The exterior noise thresholds established in the County Noise Control Ordinance indicate a threshold of 45 dBA during the night and 50 dBA during the day for residential uses. Therefore, placing future wind turbines potentially within approximately 35 to 85 feet of a residence could result in an exceedance of the County's exterior noise standards for residential properties and potentially for commercial properties as well, which have a threshold of 55 dBA at night and 65 dBA during the day. Additionally, there is the potential for wind turbines to produce increased noise levels over time

as gears become worn down. In addition, wind turbine gearboxes could potentially result in pure tone noise if they were to malfunction. It is anticipated that required maintenance would be performed, which would alleviate ~~this concern~~ these concerns. However, the potential for gearbox malfunctions exists; therefore, future small-scale wind turbine systems have the potential to exceed the County's Noise Control Ordinance pure tone noise standards as previously defined in Section 4.12.2.

While small-scale wind energy systems have the potential to exceed the thresholds established in the County's Noise Control Ordinance, such projects would be required to comply with the thresholds established in the Noise Control Ordinance. For example, for projects located on a residential property, noise would be limited to 45 dBA during the night, due to required compliance with the Noise Control Ordinance. Conversely, where the noise threshold established in the Noise Control Ordinance is less stringent than that established in Part 15 of the Zoning Code, the noise threshold established in Part 15 would apply.

The Minor CUP discretionary review process would require all future small-scale wind energy projects to be evaluated under CEQA and to implement measures to minimize any noise resulting in exceedances of the County's noise thresholds or other regulatory agencies' thresholds, as applicable. Mitigation could include revising the turbine layout, curtailment of nighttime use, use of an alternate turbine manufacturer with a lower noise rating, and implementation of noise reduction technology. ~~However, as there is no guarantee at this time on a project-specific level that mitigation measures will reduce impacts to a level below significant,~~ Due to the requirement to comply with the County Noise Control Ordinance, the operation of future small-scale wind energy systems ~~may result in **potentially significant**~~would result in **less than significant** impacts relative to generation of noise, including pure tones, in excess of noise standards, regulations, or ordinances ~~(**Impact NOI-1**)~~.

Temporary MET towers would not be expected to produce substantial amounts of noise during operation that would be in exceedance of noise standards, regulations, or ordinances. Because the MET towers would be temporary, would need to comply with the County Noise Control Ordinance, and would be required to undergo future discretionary review, operation of future temporary MET towers would result in a **less than significant** impact relative to generation of noise in excess of noise standards, regulations, or ordinances.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Construction

Construction activities for utility-scale ground-mounted renewable energy facilities could generate a significant amount of traffic on project-area roadways, resulting in short-term, construction-

related increases in noise. Additionally, the construction of these facilities may involve construction equipment such as graders, excavators, tractors/loaders/backhoes, and pile drivers. The traffic and construction equipment associated with such projects could create noise conditions in exceedance of County noise thresholds. The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and to implement measures to minimize any noise, including impulsive noise, resulting in exceedances of the County's noise thresholds or other regulatory agencies' thresholds, as applicable. Mitigation could include requiring construction equipment to contain noise control features such as shrouds, mufflers, and air-inlet silencers and using mobile sound barriers. However, as there is no guarantee at this time on a project-specific level that mitigation measures will reduce impacts to a level below significant, future utility-scale ground-mounted renewable energy facilities may result in **potentially significant**, albeit temporary, impacts relative to generation of noise in excess of noise standards, regulations, or ordinances (~~**Impact NOI-2**~~**Impact NOI-1**).

Operation

Noise associated with the operation of solar equipment in utility-scale ground-mounted solar energy facilities would be minimal to none. As discussed under Small-Scale Wind Energy Systems and Temporary MET Towers, wind turbines have the potential to result in exceedances of applicable noise thresholds. Further, both solar and wind energy facilities may include ancillary equipment such as substations and transformers that may produce noise in exceedance of thresholds. In addition, wind turbine gearboxes could potentially result in pure tone noise if they were to malfunction. It is anticipated that required maintenance would be performed, which would alleviate this concern. In addition, utility-scale ground-mounted wind energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, if a gearbox were to malfunction the turbine would be shut down immediately until the problem is fixed, thereby preventing the possibility of pure tone noises to result. However, the potential for gearbox malfunctions exists; therefore, future utility-scale ground-mounted wind energy facilities have the potential to exceed the County's Noise Control Ordinance pure tone noise standards as previously defined in Section 4.12.2. However, projects would be subject to the noise thresholds established in both the proposed Zoning Code amendments and in the County Noise Control Ordinance. For utility-scale ground-mounted wind energy facilities, the proposed Zoning Code amendments establish the following condition of approval: Noise from a utility-scale wind energy system shall not exceed 60 dBA L_{eq} (equivalent sound level), as measured at the closest existing neighboring inhabited dwelling at the time of approval, or closest property line, whichever is closer. Where the County Noise Control Ordinance establishes a more stringent threshold, it would apply, thereby ensuring that future projects would be in conformance with the County Noise Control Ordinance.

The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and would require mitigation to minimize any noise resulting in exceedances of the County's noise thresholds or other regulatory agencies' thresholds, as applicable. Mitigation could include use of low-noise-rated transformers, an alternative wind turbine manufacturer with a lower noise rating, and project redesign to situate noise-generating equipment away from sensitive receptors. However, due to the requirement to comply with the County Noise Control Ordinance, ~~as there is no guarantee at this time on a project-specific level that mitigation measures will reduce impacts to a level below significant,~~ operation of future utility-scale ground-mounted renewable energy facilities ~~may result in **potentially significant**~~would result in **less than significant** impacts relative to generation of noise, including pure tone noise, in excess of noise standards, regulations, or ordinances ~~(**Impact NOI-2**)~~.

Utility-Scale Structure-Mounted Wind Energy Facilities

Construction

Utility-scale structure-mounted wind energy facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These would include wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in industrial or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, in place to support such a facility. Upgrades to existing substations or transmission lines may be required. Upgrades to substations may be required if there is an increase in load, but these upgrades would most likely be contained within the existing fence line. If a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted wind energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. As a result, these facilities are anticipated to require minimal ground disturbance or heavy construction equipment, if any, and are therefore not likely to result in impulsive noise sources.

Due to the brief construction period associated with installation of utility-scale structure-mounted wind energy facilities, and because traffic and equipment noise generated by construction of these facilities would be relatively minor, construction of such facilities would not generate excessive noise levels. Due to the limited nature of construction activities and due to required compliance with the County Noise Control Ordinance and other applicable noise

regulations, such as Cal/OSHA construction worker safety standards, construction of utility-scale structure-mounted wind energy systems would result in a **less than significant** impact relative to generation of noise in excess of noise standards, regulations, or ordinances.

Operation

Utility-scale structure-mounted wind energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Traffic and activity generated during operations would be limited to a cleaning and inspection once or twice annually. As discussed under Small-Scale Wind Energy Systems and Temporary MET Towers and under Utility-Scale Ground-Mounted Renewable Energy Facilities, operation of wind turbines generates noise, including pure tone noise, at levels that could exceed established noise standards. However, such projects would be subject to the County Noise Control Ordinance. As such, future projects ~~may result in **potentially significant**~~would result in **less than significant** impacts relative to generation of noise in excess of noise standards, regulations, or ordinances ~~(**Impact NOI-3)**~~.

Criterion B: Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Construction

Installation of small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities would involve placing solar equipment such as PV panels on

existing structures. Construction of these structure-mounted systems and facilities would be associated with minimal ground disturbance, if any; therefore, the use of heavy equipment resulting in vibration would not be anticipated. Furthermore, in the event that any vibration were to result, such activities would need to comply with Section 12.08.560 of the County Noise Control Ordinance, which regulates the production of vibration. Due to the limited construction activities and the limited construction period, construction of small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities would result in a **less than significant** impact relative to the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

As described under Criterion A, installation of small-scale ground-mounted solar energy systems could involve minor ground disturbance and/or excavation activities, and in rare cases could also involve minimal amounts of pile driving. Future ground-disturbing operations and/or pile driving resulting in ground-borne vibration could occur in the vicinity of sensitive land uses, which are described in Section 4.12.1. Vibration is subjective, and could become a nuisance to the public at continuous vibration levels near the level of perception (or at approximately 0.01 PPV (inch/second)). Construction of future small-scale ground-mounted solar energy systems is not expected to require blasting or major ground-disturbing activities and therefore is not expected to require the operation of heavy earthmoving equipment. Additionally, all future projects would be required to comply with the County Noise Control Ordinance's standards for vibration. Therefore, construction of small-scale ground-mounted solar energy systems would result in a **less than significant** impact relative to the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

Operation

The operation of future projects would not generate excessive vibration because operation would not involve any vibration-generating equipment or other noise-generating uses. Maintenance activities for future projects would be limited to washing the systems to remove any accumulated dust or debris and inspecting the system as needed. These maintenance activities would not produce vibration. Therefore, operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would result in a **less than significant** impact relative to the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility scale ground-mounted solar energy systems, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Construction

The construction of future small-scale structure-mounted and ground-mounted wind energy systems and temporary MET towers could generate ground-borne vibration or ground-borne noise. The levels of vibration generated during construction activities would depend on a number of factors, including the amount of vibration-generating activity (ground disturbance/excavation) required for the project and the nearest vibration-sensitive receptor. Construction activities associated with small wind turbines could range from a small footprint on top of an existing building to systems on the ground near an existing building. Small-scale ground-mounted wind energy systems would be limited in size by the capacity limit of 50 kilowatts, and parcels must be at least 0.5 acres for a small-scale wind energy system or temporary MET tower to be allowed. ~~specified in the proposed Zoning Code amendments. No more than two wind turbines are allowed per 5 gross acres, and each wind turbine cannot exceed the specified rated limit of 50 kilowatts.~~ Due to the capacity limitation, installing such systems would not require substantial amounts of ground disturbance, excavation, or other construction activities.

Temporary MET towers would also be developed on a relatively small footprint. It is not anticipated that blasting would be required to support the construction of any small wind energy systems or temporary MET towers. Future ground-disturbing operations resulting in ground-borne vibration could occur in the vicinity of sensitive land uses, which are described in Section 4.12.1. Vibration is subjective, and could become a nuisance to the public at continuous vibration levels near the level of perception (approximately 0.01 PPV (inch/second)). Future small-scale wind energy systems and temporary MET towers are not expected to require blasting or major ground-disturbing activities and therefore are not expected to require the operation of heavy earthmoving equipment. Additionally, all future projects would be required to comply with the County Noise Control Ordinance's standards for vibration. Therefore, construction of small-scale wind energy systems and temporary MET towers would result in a **less than significant** impact relative to the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

Operation

Small-scale wind energy systems and temporary MET towers could be placed near vibration-sensitive land uses. Although ground-borne vibration may be produced by wind turbines, such vibrations are too weak to be detected by or to affect humans (AWEA 2009). Temporary MET towers would not be anticipated to produce any vibration. Due to the minor to negligible vibrations produced by wind turbines and temporary MET towers during operation and due to the requirement for future projects to undergo project-level discretionary review, operation of small-scale wind energy systems and temporary MET towers would result in a **less than significant** impact relative to the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Construction

As described under Criterion A, construction of utility-scale ground-mounted renewable energy facilities could involve heavy construction equipment, extensive ground disturbance and excavation, and pile driving that could occur in numerous instances over the course of construction. Because vibration attenuates quickly over short distances, impacts related to vibration have generally been deemed less than significant for most utility-scale ground-mounted renewable energy facilities recently proposed within the County that have been evaluated at the project level. However, because the specific locations and construction details of future projects are not known at this time, there is the potential for future utility-scale ground-mounted facilities to expose persons to vibration and/or to produce excessive vibration. The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and would require measures to minimize any noise resulting in exceedances of the County's noise thresholds or other regulatory agencies' thresholds, as applicable. Mitigation could include use of equipment that generates less vibration (such as using a vertical hydraulic pile driver instead of an impact pile driver). However, as there is no guarantee at this time on a project-specific level that mitigation measures will reduce impacts to a level below significant, implementation of future utility-scale ground-mounted renewable energy facilities under the proposed project may result in **potentially significant**, albeit temporary, impacts relative to the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels (~~**Impact NOI-4**~~**Impact NOI-2**).

Operation

Operational vibration that is perceptible to humans is anticipated to be limited to any maintenance or emergency maintenance activities that may require heavy equipment. Generally, however, maintenance of both solar and wind energy facilities would involve visual inspections, periodic washing of the systems, and period dust control efforts. This routine maintenance would not be expected to produce vibration. As specified under Small-Scale Wind Energy Systems and Temporary MET Towers, although ground-borne vibration may be produced by small or large wind turbines, such vibrations are too weak to be detected by or to affect humans (AWEA 2009). Due to the limited amount of vibration expected to be produced during operation of such projects, as well as the additional project-level discretionary review that each future project would be required to undergo, operation of utility-scale ground-mounted renewable energy facilities would result in a **less than significant** impact relative to the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

Utility-Scale Structure-Mounted Wind Energy Facilities

Construction

Due to the brief construction period associated with installation of utility-scale structure-mounted wind energy facilities, and because traffic and equipment noise generated by construction of these facilities would be relatively minor, construction of such facilities would not generate excessive ground-borne vibration associated with heavy truck traffic or operation of equipment such as pile drivers. Because projects would involve placing wind equipment such as small turbines on existing structures, minimal ground disturbance, if any, is expected and vibration-generating construction processes such as pile driving would not be involved. Due to the limited construction activities and the short construction period, construction of utility-scale structure-mounted wind energy facilities would result in a **less than significant** impact relative to the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

Operation

Utility-scale structure-mounted wind energy facilities could cause vibrational impacts to the structure the facility is mounted on. At this time, the number of utility-scale structure-mounted wind energy facilities proposed for specific structures and the specifications for the structure-mounted facilities are uncertain. Due to these uncertainties, a vibrational study would need to be conducted when ~~future discretionary review process is prepared~~specific projects are proposed ~~in order~~ to determine whether future proposed utility-scale structure-mounted wind energy facilities would result in a significant vibrational impact. Therefore, impacts related to exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels would be **potentially significant** (~~**Impact NOI-5**~~**Impact NOI-3**).

Criterion C: Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from parking areas?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3)~~

~~future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

As stated under Criterion A, construction of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may be associated with minimal and temporary noise produced by construction equipment. However, such projects would typically be associated with minimal ground disturbance, if any, and would be unlikely to require any heavy construction equipment that would produce substantial noise. Additionally, any noise associated with construction for these projects would be temporary and would be required to comply with the County Noise Control Ordinance. As stated under Criterion A, operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would produce little to no noise. Therefore, because both construction and operation of these projects would produce minimal noise, future projects would not lead to a substantial increase in permanent ambient noise levels within the unincorporated County, and impacts of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities relative to creating substantial permanent increases in ambient noise levels in the unincorporated County would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

As stated in Criterion A, construction of small-scale wind energy systems and temporary MET towers could produce temporary noise. However, due to the limited nature of construction activities and the short-term and temporary nature of construction processes for such systems, construction-related noise would not cause a substantial permanent increase in ambient noise levels within the unincorporated County. However, as specified under Criterion A, operation of wind turbines could ~~cause a potential impact relative to exceedances of the County's noise standards, including pure-tone noise. Exceedances of the County's noise standards would have~~

~~the potential to~~ lead to a permanent increase in ambient noise levels in the vicinity of future small-scale wind systems above the existing ambient noise levels of those areas. Additionally, ~~the discussion and significance determination under Criterion A dealt with the noise standards as established by the County. However,~~ concerns have been raised about the ability of wind turbines to cause noise effects such as low-frequency noise and infrasound (described in Section 4.12.1) that differ from the types of the noise that are typically regulated by County thresholds. Although claims have been made linking low-frequency noise to physiological impacts such as rapid heartbeat, nausea, and blurred vision, several reviews of currently available scientific data have determined that there is no direct causal relationship between wind turbine low-frequency sound and health effects. However, the addition of low-frequency noise to an area would have the potential to cause annoyance to some people.

The Minor CUP discretionary review process for such systems would require all future small-scale wind energy projects and temporary MET towers to be evaluated under CEQA and to implement measures to minimize permanent increases in ambient noise relative to noise levels in the project vicinity. Mitigation could include revising the turbine layout, curtailment of nighttime use, use of an alternate turbine manufacturer with a lower noise rating, and implementation of noise reduction technology. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level below significant, future small-scale wind energy systems may result in **potentially significant** impacts relative to substantial permanent increases in ambient noise levels relative to existing noise levels (~~**Impact NOI-6**~~**Impact NOI-4**).

Utility-Scale Ground-Mounted Renewable Energy Facilities

As described under Criterion A, the construction of future utility-scale ground-mounted renewable energy facilities would have the potential to produce potentially significant, albeit temporary, impacts related to generation of noise in excess of noise standards, thresholds, and ordinances. However, these potentially significant impacts would be construction related and temporary and would therefore not result in a permanent increase in noise relative to existing noise levels in the vicinity of future project sites.

As described under Criterion A, the operation of future utility-scale ground-mounted wind energy facilities may produce noise, including pure tone noise~~, in exceedance of established noise standards, thresholds, and ordinances~~. Furthermore, as discussed under Small-Scale Wind Energy Systems and Temporary MET Towers, wind turbines may produce low-frequency noise. Although such sound is not known to produce negative health effects, it may result in annoyance to some people. The CUP discretionary review process for such systems would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and would require implementing measures to minimize permanent

increases in ambient noise relative to noise levels in the project vicinity. Mitigation for utility-scale ground-mounted solar and wind energy facilities could include placing transformers or substations in locations away from sensitive receptors or choosing a design with a low noise rating. Mitigation for utility-scale ground-mounted wind energy facilities could include revising wind turbine layout, curtailment of nighttime wind turbine use, use of an alternate turbine manufacturer with a lower noise rating, and implementation of noise reduction technology for wind turbines. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level below significant, future utility-scale ground-mounted renewable energy facilities may result in **potentially significant** impacts relative to substantial permanent increases in ambient noise levels relative to existing noise levels (~~**Impact NOI-7**~~**Impact NOI-5**).

Utility-Scale Structure-Mounted Wind Energy Facilities

As stated under Criterion A, construction of utility-scale structure-mounted wind energy facilities may be associated with minimal and temporary noise produced by construction equipment. However, such projects would typically be associated with minimal ground disturbance, if any, and would therefore not be likely to require any heavy construction equipment that would produce substantial noise. Additionally, any noise associated with construction for these projects would be temporary and would be required to comply with the County Noise Control Ordinance. Therefore, construction of future projects would not lead to a substantial increase in permanent ambient noise levels within the unincorporated County.

However, as described under Criterion A, Utility-Scale Structure-Mounted Wind Energy Facilities, wind turbines mounted on structures would have the potential to generate noise ~~in excess of established standards~~, including pure tone noise. As such, future projects could cause permanent ambient increases in noise levels inside the structures on which they are mounted or near these structures. As such, future projects may result in **potentially significant** impacts relative to permanent increases in ambient noise (~~**Impact NOI-8**~~ **Impact NOI-6**).

Criterion D: Would the project result in 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?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W

zones would require a Minor CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Temporary noise from small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would occur in association with construction activities and cleaning of the systems. As discussed under Criterion A, minimal construction and maintenance vehicles and equipment would be required. Additionally, all construction activities would be required to comply with the regulations for construction times and noise produced by construction equipment as established in the County Noise Control Ordinance. Therefore, due to the limited nature of construction activities and due to required compliance with the County Noise Control Ordinance, future projects would result in a **less than significant** impact relative to substantial temporary or periodic increases in ambient noise levels relative to existing noise levels in surrounding areas.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Temporary noise from small-scale wind energy systems and temporary MET towers would occur in association with construction activities and cleaning of the components. As discussed under Criterion A, minimal construction and maintenance vehicles and equipment would be required. Due to the limited nature of construction activities required and due to required compliance with the County Noise Control Ordinance, construction of small-scale wind energy systems and temporary MET towers would result in a **less than significant** impact relative to substantial temporary or periodic increases in ambient noise levels relative to existing noise levels in surrounding areas.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Temporary noise from utility-scale ground-mounted renewable energy facilities would occur in association with construction activities and cleaning of the components. As stated under Criterion A, temporary noise associated with construction and maintenance vehicles and equipment may have the potential to exceed noise standards, regulations, or ordinances. Therefore, noise produced during construction could result in a substantial temporary increase in ambient noise levels relative to existing noise levels in surrounding areas. The CUP discretionary review process for such systems would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and would require measures to minimize temporary increases in ambient noise relative to noise levels in the project vicinity. Mitigation for utility-scale ground-mounted solar and wind energy facilities could include placing transformers or substations in locations away from sensitive receptors or choosing a design with a low noise rating. Mitigation could also include requiring construction equipment to contain noise control features such as shrouds, mufflers, and air-inlet silencers and using mobile sound barriers. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level below significant, future utility-scale ground-mounted renewable energy facilities may result in **potentially significant** impacts relative to substantial temporary or periodic increases in ambient noise levels as compared with existing noise levels in surrounding areas (~~**Impact NOI-9**~~**Impact NOI-7**).

Utility-Scale Structure-Mounted Wind Energy Facilities

Temporary noise from utility-scale structure-mounted wind energy facilities would occur in association with construction activities and cleaning of the components. As discussed under Criterion A, these facilities would be associated with minimal ground disturbance, if any, and minimal construction and maintenance vehicles and equipment would be required. Additionally, all construction activities would be required to comply with the regulations for construction times and noise produced by construction equipment as established in the County Noise Control Ordinance. Therefore, due to the limited nature of construction activities and due to required compliance with the County Noise Control Ordinance, implementation of future utility-scale structure-mounted wind energy facilities under the proposed project would result in a **less than significant** impact relative to substantial temporary or periodic increases in ambient noise levels relative to existing noise levels in surrounding areas.

Criterion 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?***

There are 15 public or public-use airports within the County, three of which are located within unincorporated areas. Of these three, two are in the Coastal Islands Planning Area and one is in the Santa Clarita Valley Planning Area in the unincorporated community of Agua Dulce. Although airports in unincorporated areas are few, the airport influence areas of several airports (Los Angeles International Airport, Palmdale Regional Airport, and General William J. Fox Airfield) located within incorporated cities extend into unincorporated areas. These overlapping areas are small relative to the size of the unincorporated County; however, there is still the potential for future projects to be located within an ALUP or within 2 miles of a public or a public-use airport. In the event that a future project were to be located in proximity to an airport, it would not introduce a sensitive land use such as residential development to the area. Any development within an ALUP area would be required to be consistent with development constraints set forth in the applicable plan. Furthermore, there are a variety of standards and regulations in place within the County that limit airport noise. For example, Section 19.04.750 of the L.A. County Code prohibits unnecessary aircraft noise. Control and abatement of airport noise is also addressed in the Noise Elements of both the existing adopted General Plan and in the ~~2014~~ 2015 Draft General Plan Update. Because renewable energy projects would not be considered sensitive land uses and because future projects would need to comply with any applicable ALUP and existing regulations that limit airport noise within the County, installation and operation of renewable energy projects developed pursuant to the proposed Zoning Code amendments would result in a **less than significant** impact relative to exposure of persons to excessive noise levels from airports.

Criterion 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?***

There are numerous private airstrips located throughout the County, some of which are in unincorporated areas. Future projects developed pursuant to the proposed Zoning Code amendments could occur within the vicinity of a private airstrip. In the event that a future project were to be located in proximity to an airstrip, it would not introduce a sensitive land use, such as residential development, to the area. Any development within an ALUP area would be required to be consistent with development constraints set forth in the applicable plan. Furthermore, there are a variety of standards and regulations in place within the County that limit airport noise. For example, Section 19.04.750 of the L.A. County Code prohibits unnecessary aircraft noise. Control and abatement of airport noise is also addressed in the Noise Elements of both the existing adopted General Plan and in the ~~2014~~ 2015 Draft General

Plan Update. Because renewable energy projects would not be considered sensitive land uses and because there are existing regulations that limit airport noise within the County, installation and operation of renewable energy projects developed pursuant to the proposed Zoning Code amendments would result in a **less than significant** impact relative to exposure of persons to excessive noise levels from airstrips.

4.12.5 Level of Significance Before Mitigation

Without mitigation, the following noise-related impacts would be potentially significant:

~~**Impact NOI-1** Impacts relative to generation of noise, including pure tone noise, in excess of noise standards, regulations, or ordinances from operation of small-scale wind energy systems.~~

Impact NOI-~~2~~1 Impacts relative to generation of noise, including pure tone noise associated with wind turbines, in excess of noise standards, regulations, or ordinances from construction ~~and operation~~ of utility-scale ground-mounted wind and solar energy facilities.

~~**Impact NOI-3** Impacts relative to generation of noise, including pure tone noise, in excess of noise standards, regulations, or ordinances from operation of utility-scale structure-mounted wind energy facilities.~~

Impact NOI-~~4~~2 Impacts relative to the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels from construction of utility-scale ground-mounted wind and solar energy facilities.

Impact NOI-~~5~~3 Impacts relative to the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels from operation of utility-scale structure-mounted wind energy facilities.

Impact NOI-~~6~~4 Impacts from operation of small-scale wind energy systems relative to substantial permanent increases in ambient noise levels, including pure tone noise, relative to existing noise levels.

Impact NOI-~~7~~5 Impacts from operation of utility-scale ground-mounted wind and solar facilities relative to substantial permanent increases in ambient noise levels including pure tone noise associated with wind turbines, relative to existing noise levels.

Impact NOI-~~8~~6 Impacts from operation of utility-scale structure-mounted wind energy facilities relative to substantial permanent increases in ambient noise levels, including pure tone noise, relative to existing noise levels.

Impact NOI-~~9~~7 Impacts from construction of utility-scale ground-mounted wind and solar energy facilities relative to substantial temporary or periodic increases in ambient noise levels compared with existing noise levels in surrounding areas.

4.12.6 Mitigation Measures

The following mitigation measures (MMs) would reduce potentially significant impacts, but not to a level less than significant:

MM NOI-1 **Construction Noise and Vibration Study for Utility-Scale Renewable Energy Facilities.** During the environmental review process for Conditional Use Permits (CUPs) for future utility-scale ground- and structure-mounted renewable energy facilities and during the environmental review process for Minor CUPs for future utility-scale structure-mounted wind energy facilities, consultation with the Los Angeles County Department of Public Health (DPH) regarding construction-related noise and vibration shall be required. In the event that DPH requires a noise and vibration study, a noise and vibration study shall be conducted. When noise and/or vibration impacts are determined to be significant, feasible and appropriate project-specific mitigation measures as specified by DPH and/or as specified in the noise and vibration study shall be incorporated into the project to the extent practicable. Examples of standard mitigation measures required may include requiring construction equipment to contain noise control features such as shrouds, mufflers, and air-inlet silencers and using mobile sound barriers.

MM NOI-2 **Operational Noise and Vibration Study for Small-Scale Wind Energy Systems.** During the environmental review process for Minor CUPs for future small-scale ground- or structure-mounted wind energy systems, consultation with DPH regarding operational noise and vibration shall be required. In the event that DPH requires a noise and vibration study, a noise and vibration study shall be conducted. The noise study shall address pure tone noise and A-weighted sound levels as well as low-frequency sound levels anticipated to be generated during operation of the proposed system. When noise impacts are determined to be significant, feasible and appropriate project-specific mitigation measures as specified by DPH and/or as specified in the noise and vibration study shall be incorporated into the project to the extent practicable.

Examples of standard mitigation measures required may include revising the turbine layout, curtailing nighttime use, using an alternate turbine manufacturer with a lower noise rating, implementing noise reduction technology, and adding additional setbacks from sensitive receptors.

MM NOI-3 **Operational Noise Study for Utility-Scale Renewable Energy Facilities.** During the environmental review process for CUPs for future utility-scale ground- and structure-mounted renewable energy facilities and during the environmental review process for Minor CUPs for future utility-scale structure-mounted wind energy facilities, consultation with DPH regarding operation noise shall be required. In the event that DPH requires a noise study, a noise study shall be conducted. For proposed wind energy facilities, the noise study shall include analysis of pure tone noise and address A-weighted sound levels and low-frequency sound levels anticipated to be generated during operation of the proposed system. When operational noise impacts are determined to be significant, feasible and appropriate project-specific mitigation measures as specified by DPH and/or as specified in the noise study shall be incorporated into the project to the extent practicable. Examples of standard mitigation measures required may include use of low-noise-rated transformers, use of an alternative wind turbine manufacturer with a lower noise rating, and project redesign to situate noise-generating equipment away from sensitive receptors.

4.12.7 Level of Significance After Mitigation

Impact NOI-1 through Impact NOI-9

Appropriate, feasible, and enforceable mitigation measures could not be identified that would reduce potentially significant noise impacts to a less than significant level; therefore, impacts would remain **significant and unavoidable.**

Table 4.12-1
Typical A-Weighted Sound Levels from Outdoor and Indoor Sources

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet flyover at 1,000 feet		
	— 100 —	
Gas lawnmower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet

Table 4.12-1
Typical A-Weighted Sound Levels from Outdoor and Indoor Sources

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher in next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Note: dBA = A-weighted decibels; mph = miles per hour.

Table 4.12-2
Maximum Noise Levels for Construction Noise from Mobile Equipment

Noise Zone	Single-Family Residential	Multi-Family Residential	Semi-Residential/Commercial	Business Structures
Daily, except Sundays and legal holidays, 7 a.m. to 8 p.m.	75 dBA	80 dBA	85 dBA	85 dBA
Daily, 8 p.m. to 7 a.m. and all day Sunday and legal holidays	60 dBA	64 dBA	70 dBA	85 dBA

Source: L.A. County Code, § 12.08.440.
Note: dBA = A-weighted decibels.

Table 4.12-3
Maximum Noise Levels for Construction Noise from Stationary Equipment (10 days or more)

Noise Zone	Single-Family Residential	Multi-Family Residential	Semi-Residential
Daily, except Sundays and legal holidays, 7 a.m. to 8 p.m.	60 dBA	65 dBA	70 dBA
Daily, 8 p.m. to 7 a.m., and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

Source: L.A. County Code, § 12.08.440 (a portion of the Noise Control Ordinance).
Note: dBA = A-weighted decibels.

Table 4.12-4
Exterior Noise Standards

Noise Zone	Designated Noise Zone Land Use (Receptor Property)	Time Interval	Exterior Noise Level (dBA)
I	Noise-sensitive area	Anytime	45
II	Residential properties	10 p.m. to 7 a.m. (nighttime)	45
		7 a.m. to 10 p.m. (daytime)	50
III	Commercial properties	10 p.m. to 7 a.m. (nighttime)	55
		7 a.m. to 10 p.m. (daytime)	60
IV	Industrial properties	Anytime	70

Source: L.A. County Code, § 12.08.390.
Note: dBA = A-weighted decibels.

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4.13 POPULATION AND HOUSING

This section describes the existing population and housing setting of the proposed project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

4.13.1 Existing Conditions

Planning for residential needs is part of the comprehensive planning process of the existing adopted General Plan for the County of Los Angeles (County). The ~~existing adopted~~ General Plan, especially the Housing Element, together with individual community plans, provides goals, policies, and programs to accommodate housing needs throughout the County. The proposed project area consists of the unincorporated areas of the County. Land uses within the unincorporated areas of the County include highly urbanized areas, well-established suburban communities, newly developed suburban communities, commercial uses, industrial uses, and open space. A significant impact could occur if the proposed project induces substantial unplanned population growth or results in the displacement of housing or people.

Population

Los Angeles County is the most populous county in the United States. There are nearly 10 million people in the entire County, with over 1 million people living in the unincorporated areas. Within the past decade, the unincorporated areas of the County underwent considerable population growth, as opposed to the growth that was experienced in the prior decade. Between 1990 and 2000, the population grew by 1.6%, and between 2000 and 2010, the population grew by approximately 7%, as indicated in Table 4.13-1, Los Angeles County Population Growth. This increase in growth rate is attributed to an increase in housing construction and household sizes experienced throughout Southern California in the early 2000s (CDF 2013; SCAG 2012a). Table 4.13-2, Los Angeles County Population Projections, shows the current and estimated future population of the County. The County calculates the current population in unincorporated areas, and future estimates are obtained from the Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS). The current population of the County as whole (both unincorporated and incorporated areas) is obtained from the California Department of Finance.

The median age of people living in the County is 35 years, as reported in the 2010 Census.

Housing

Growth Projections

The County documented approximately 300,478 housing units within unincorporated areas in 2013, and the California Department of Finance reported 3,463,382 housing units within the County as a whole (unincorporated and incorporated areas). Thus, the housing units within unincorporated areas represent approximately 8.7% of housing units within the entirety of the County (CDF 2013).

Table 4.13-3, Los Angeles County Housing Unit Projections, compares the total housing units documented in 2013 to SCAG's 2035 projections. As indicated in the table, housing in the unincorporated areas is anticipated to increase at a higher rate when compared to all of the County.

Housing Types

According to the California Department of Finance, the majority of housing units with the unincorporated areas of the County are single-family residential houses, indicating the suburban nature of many unincorporated communities. However, the unincorporated areas also include mobile homes, multiple-family housing, and single-family attached units such as townhomes and duplexes. Table 4.13-4, Housing Types, shows the mixture of housing types in the unincorporated areas of the County and in the County as a whole, as estimated by the California Department of Finance.

4.13.2 Relevant Plans, Policies, and Ordinances

Federal

U.S. Department of Housing and Urban Development

The U.S. Department of Housing and Urban Development (HUD) is dedicated to creating strong, sustainable, inclusive communities and quality affordable homes for all. HUD implements and enforces a wide variety of civil rights laws for the public in search of fair housing and for HUD-funded grant recipients. HUD-funded grant recipients are obligated not to discriminate in housing or services, directly or indirectly, on the basis of race, color, religion, sex, national origin, age, familial status, or disability. Furthermore, HUD requires recipients of federal financial assistance to comply with civil-rights-related program requirements that affect nearly every aspect of each program.

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970

Title 42 of the United States Code, Chapter 61, Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs, was enacted in 1970 and most recently amended in 2012. This act provides for uniform and equitable treatment of persons displaced from their homes, businesses, or farms by federal and federally assisted programs and establishes uniform and equitable land acquisition policies for federal and federally assisted programs.

Title II of the Americans with Disabilities Act of 1990

Title II prohibits discrimination based on disability in programs, services, and activities provided or made available by public entities. HUD enforces Title II when it relates to state and local public housing, housing assistance, and housing referrals.

State

California Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is provided in the California Planning and Zoning Law (Cal. Govt. Code, §§ 65000–66499.58). Under state planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the California Government Code. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and implementation measures.

California Building Standards Code

In 2001, California consolidated the Uniform Building, Plumbing, Electrical, and Mechanical codes into the California Building Standards Code, which is contained in Title 24 of the California Code of Regulations. The California Building Standards Code contains 11 parts: Electrical Code, Plumbing Code, Administrative Code, Mechanical Code, Energy Code, Residential Building Code, Historical Building Code, Fire Code, Existing Building Code, Green Building Standards Code, and the Reference Standards Code. These codes promote public health and safety and ensure that safe and decent housing is constructed in the County's unincorporated areas. The codes serve to protect residents from hazards and risks, and are not considered to be undue constraints to housing production. The 2007 California codes became effective January 2008.

Local

Southern California Association of Governments

Southern California Association of Governments Regional Comprehensive Plan

SCAG is a joint powers authority under California state law, and was established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. The intent of the district is to serve equal populations and communities of interest. SCAG's regional area consists of six counties (Los Angeles, Imperial, Orange, Riverside, San Bernardino, and Ventura), 191 cities, and six County Transportation Commissions. The agency develops long-range RTPs, including SCS and growth forecast components, regional transportation improvement programs, regional housing needs allocations, and a portion of the South Coast Air Quality Management Plans.

SCAG developed a Regional Comprehensive Plan that was released in 2008. This document is a major advisory document for local governments in the Southern California region to address regionally significant issues such as growth and infrastructure challenges. The plan covers nine planning and resource management topics, including housing, traffic/transportation, water, and air quality. Issues related to housing, employment, and growth are primarily addressed in the Land Use, Housing, and Economy chapters of the Regional Comprehensive Plan. The visions and recommendations made in the Regional Comprehensive Plan seek a balance in resource conservation, economic vitality, and quality of life.

Southern California Association of Governments RTP/SCS

The SCAG RTP/SCS, released in 2012, provides a policy framework that emphasizes the importance of system management, goods movement, innovative transportation financing, and integrating land use with transportation strategies. For the purpose of preserving the existing transportation infrastructure and enhancing the effectiveness of future transportation infrastructure through informed decision making, the RTP/SCS forecasts the population, household, and employment levels for areas within the SCAG region. The forecast for the region was developed based on population growth factors such as fertility, mortality, and migration, as well as integrated economic trends, including employment.

The SCAG RTP/SCS estimates that population, household, and employment will all continue to rise through the year 2035. Although all of these sectors are projected to increase, the RTP/SCS forecast has the rate of increase for all sectors peaking at its highest point around the year 2020. After 2020, these factors will continue to increase but the rate of increase is projected to slow each year through 2035.

Southern California Association of Governments Regional Housing Needs Assessment

The California Department of Housing and Community Development and local governments are charged with determining their city's or region's existing and projected housing needs. These needs are used to require each jurisdiction to provide its fair share of regional housing. To accomplish these tasks, SCAG developed the Regional Housing Needs Assessment (RHNA) to be used by local governments in deciding how to address existing and future housing needs that are the result of population, employment, and household growth. The most recent RHNA was adopted on October 4, 2012, and covers the planning period between 2014 and 2021. This RHNA indicated that the entire County (including incorporated areas) needs to supply 179,881 new housing units in order to meet household growth, replacement of demolished or converted housing units, and other vacancy factors; of these units, 30,145 were allocated to unincorporated areas under the County's jurisdiction (SCAG 2012b).

Los Angeles County General Plan

The most recent County Housing Element was adopted in February 2014. The Housing Element includes programs that reduce regulatory barriers and provide incentives for private development. The Housing Element uses population, household, and employment projections from a growth forecast that was developed from SCAG's RTP/SCS. Population projections and household projections for the unincorporated County are organized by eight SCAG subregions. State law requires that all local jurisdictions accommodate a share of the region's projected housing needs, or the RHNA allocation. The County is currently undergoing a process to update the General Plan. However, the Housing Element is not part of the General Plan Update.

Los Angeles County Housing Authority

The Housing Authority of the County of Los Angeles is responsible for public and affordable housing stock located throughout Los Angeles County. The Housing Authority strives to provide and maintain housing that is decent, safe, and sanitary and to provide high standards of property management. The Admissions and Continued Occupancy Policy establishes guidelines for Housing Authority staff to follow in determining eligibility for admission and continued occupancy. These guidelines are governed by the requirements set forth by HUD for local policies and procedures. The Housing Authority complies will all laws relating to civil rights and fair housing policies.

4.13.3 Thresholds of Significance

The significance criteria used to evaluate the proposed project impacts to population and housing are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

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).

B. Displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.

C. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

D. Cumulatively exceed official regional or local population projections.

4.13.4 Impacts Analysis

Criterion A: Would the project 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)?

The proposed project would not directly induce population growth in the area since it does not include new residential or commercial development. The development of renewable energy systems and facilities would not induce substantial unplanned population growth because it does not propose any physical or regulatory changes that would remove a restriction to or encourage population growth in an area including, but not limited to, the following: (1) new or extended infrastructure or public facilities or (2) new conversion of homes to commercial or multifamily use. New or extended infrastructure or public facilities that are typically considered population growth inducing include extension or expansion of roadways, water facilities, and wastewater facilities since they provide the type of infrastructure necessary for new residential and commercial development. Energy production, which may be considered public infrastructure at the utility scale, is typically planned to meet current demand and respond to long-term growth projections. The proposed Zoning Code amendments also do not propose regulatory changes, including general plan amendments, specific plan amendments, zone reclassifications, sewer or water annexations, or Local Agency Formation Commission annexation actions. In addition, the proposed Zoning Code amendments do not increase density or intensity of land use in a manner

that is inconsistent with the existing adopted General Plan or with the General Plan Update.[1] Therefore, implementation of the proposed project would result in **less than significant** impacts to population growth.

Criterion B: Would the project displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?

The proposed project entails amending L.A. County Code Title 22 (the Zoning Code) to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary meteorological (MET) towers. The proposed Zoning Code amendments would allow renewable energy systems and facilities and temporary MET towers in various zones subject to standards and limitations. The proposed project would not displace existing housing resulting in the need for the construction of replacement housing elsewhere. Therefore, impacts from implementation of the proposed project would be **less than significant**.

Criterion C: Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

As mentioned under Criterion B, the renewable energy systems and facilities would be developed pursuant to the proposed Zoning Code amendments and are unlikely to displace housing or require the relocation of any people; furthermore, any discretionary utility-scale projects would require individual California Environmental Quality Act (CEQA) analysis to address any issues of housing displacement or relocation of people. Therefore, impacts from implementation of the proposed project would be **less than significant**.

Criterion D: Would the project cumulatively exceed official regional or local population projections?

The County's General Plan Housing Element uses population, household, and employment projections from SCAG's RTP/SCS growth forecast. The population projections and household projections for the unincorporated County are organized by the eight SCAG subregions. SCAG has established the County's RHNA allocation at 30,145 units.

The proposed project entails amending the Zoning Code to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities,

[1] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

and temporary MET towers. As indicated in response to Criterion A, the proposed Zoning Code amendments would not induce substantial population growth in any area. Additionally, with the high population projections from SCAG's RTP/SCS growth forecast, it is unlikely that the proposed project 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**.

4.13.5 Level of Significance Before Mitigation

No significant impacts to population growth or housing would occur as a result of the proposed project.

4.13.6 Mitigation Measures

No significant impacts to population growth or housing would occur; therefore, no mitigation measures are required.

4.13.7 Level of Significance After Mitigation

As stated above, the proposed project would not result in significant impacts to population growth or housing, and no mitigation measures are required. Impacts associated with the proposed project would remain **less than significant**.

Table 4.13-1
Los Angeles County Population Growth

Jurisdiction	Population 2000	Population 2010	Increase
Unincorporated and incorporated areas	9,519,338	9,818,605	3%
Unincorporated areas	986,050	1,057,194	7%

Source: U.S. Census Bureau 2012; County of Los Angeles ~~2014~~2015; CDF 2013; SCAG 2012a.

Table 4.13-2
Los Angeles County Population Projections

Jurisdiction	Population 2013	Population 2035	Increase
Unincorporated and incorporated areas	9,958,091	11,353,000	14.0%
Unincorporated areas	1,066,415	1,399,500	31.2%

Source: County of Los Angeles ~~2014~~2015; CDF 2013; SCAG 2012a.

Table 4.13-3
Los Angeles County Housing Unit Projections

Jurisdiction	Number of Housing Units, 2013	Number of Housing Units,2035	Increase
Unincorporated and incorporated areas	3,463,382	3,852,000	11.2%
Unincorporated areas	300,478	405,500	35.0%

Source: SCAG 2012a, 2012c; CDF 2013.

Table 4.13-4
Housing Types

Jurisdiction	Single-Family Detached	Single-Family Attached	Multi-Family	Mobile Homes
Unincorporated and incorporated areas	49.7%	6.6%	42.0%	1.7%
Unincorporated areas	71.0%	5.9%	19.7%	3.4%

Source: CDF 2013.

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4.14 PUBLIC SERVICES

This section describes the existing setting of the proposed project site and vicinity as it relates to public services, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

4.14.1 Existing Conditions

Fire Protection

Fire protection and emergency medical services in the unincorporated areas of the County of Los Angeles (County) are primarily provided by the County Fire Department (LACoFD) (also known as the Consolidated Fire Protection District of Los Angeles County), which also serves 58 incorporated cities that contract with LACoFD. LACoFD also provides fire prevention services, hazardous materials services, and urban search and rescue services. LACoFD services over four million residents within the County and operates 170 fire stations within nine divisions. LACoFD had 4,713 personnel in 2013. To maintain adequate fire protection, LACoFD upholds the following response time standards:

- Response time in urban areas: 5 minutes or less
- Response time in suburban areas: 8 minutes or less
- Response time in rural areas: 12 minutes or less

The Angeles National Forest is serviced by both LACoFD and the U.S. Forest Service. The U.S. Forest Service is responsible for non-structure fires and LACoFD is responsible for structure fires, but in a fire emergency, both agencies fight structure and non-structure fires. This sharing of responsibility is set forth in a mutual aid pact that covers federal forestlands (County of Los Angeles ~~2014~~2015, Section 5.14).

Police Protection

Los Angeles County Sheriff's Department

The Los Angeles County Sheriff's Department (LASD) provides general-service law enforcement in the unincorporated areas of the County and in the 42 cities within the County that have contracted with LASD. LASD also contracts with the Los Angeles Metropolitan Transportation Authority, Metrolink, and a variety of community colleges to provide law enforcement services on trains, buses, and nine community college campuses within the County. Additionally, LASD holds primary jurisdiction over facilities operated by the County, such as parks, marinas, and

government buildings. It operates the County jail system and provides bailiff service for the Superior Court of Los Angeles County.

The population served in the unincorporated areas is approximately one million people, and the population served in incorporated areas is approximately four million people. LASD has over 17,000 employees and operates approximately 23 sheriff's stations throughout the County.

The department has identified that the optimal ratio of officers to residents for maintaining its desired level of service is 1 officer for every 1,000 residents. This standard is typically applied to environmental impact reports (EIRs) for projects that would be served by LASD to estimate a project's potential impact on law enforcement services. Response times vary based on the location and availability of law enforcement officers and patrol schedules; however, the department has several response time standards for specific incident types, which are as follows:

- Emergency Response Incidents (life-threatening crimes that are presently occurring): 10 minutes or less
- Priority Response Incidents (a crime that is occurring but is not life threatening): 20 minutes or less
- Routine Response Incidents (a crime that has already occurred and is not life threatening): 60 minutes or less

The above response times include the time required to handle a service call, as measured from the time a call is received to the time the patrol car arrives (County of Los Angeles ~~2014~~2015, Section 5.14).

Highway Patrol

The California Highway Patrol is responsible for traffic safety on highways maintained by the state. The California Highway Patrol is divided into eight field divisions; the County is within the Southern Division. The Southern Division has 10 area offices, 1 commercial inspection facility, 1 traffic management center, 1,123 uniformed officers, and 359 non-uniformed personnel (California Highway Patrol 2015).

Schools

Public schools and educational facilities are mandated by the State Department of Education and administered by the County Office of Education, which is guided by a seven-member County Board of Education.

The County Office of Education provides a vision statement and strategic opportunities for facility development within individual school districts. Many districts do not involve the County in their facilities planning process, although some provide the County with population surveys that support facility planning efforts. The County may become involved in the planning for additional school facilities when developers submit subdivision maps as part of the County subdivision approval process. During this process, developers are required to assess the needs for land for the construction of public schools within their development. In some cases, they must dedicate an appropriate amount of land within their development to this purpose. Development impact fees, based on the size of a development, are distributed to the appropriate school district for the construction of school facilities before the County issues building permits (County of Los Angeles ~~2014~~2015, Section 5.14). Land dedications and fees for public schools are usually triggered by development projects that would cause a population increase that cannot be accommodated by existing schools in the vicinity of the new development.

As of 2013, there were 1,564,205 students enrolled in public schools within the County. The County as a whole (unincorporated and incorporated areas) is served by a total of 88 school districts (kidsdata.org).

Libraries

The County Public Library system includes 86 libraries located throughout the organization's eight service planning areas. The County's book collection totals 7.5 million volumes, and its libraries served 3.1 million cardholders during 2011–2012 (County of Los Angeles ~~2014~~2015).

The library has a service level planning guideline of 2.75 items (books and other library materials) per capita. New residential developments in unincorporated areas are required to pay a library facilities mitigation fee that is based on the estimated cost of anticipated library facility needs. The mitigation fee is reviewed by the County Librarian and is adjusted July 1 of every year. The Library Facilities Mitigation Fee Ordinance applies to residential projects only.

4.14.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal police, fire, or emergency services regulations applicable to the proposed project.

State

Fire

California Fire Code

The California Fire Code is Chapter 9 of Title 24 of the California Code of Regulations. It provides regulations for safeguarding life and property from fire and explosion hazards derived

from the storage, handling, and use of hazardous substances, materials, and devices. It also provides safety and assistance to firefighters and emergency responders during emergency operations. The provisions of this code apply to construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenance connected or attached to such building structures throughout the state.

Uniform Fire Code

The Uniform Fire Code contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, including regulations for building standards (also set forth in the California Building Code), and fire protection and notification systems, fire protection devises such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The State Fire Marshal enforces these regulations and building standards in all state-owned buildings, state-occupied buildings, and state institutions throughout California.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations, Title 8, Sections 1270, Fire Prevention, and 6773, Fire Protection and Fire Equipment, the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials; fire hose size requirements; restrictions on the use of compressed air; requirements for access roads; and guidelines for testing, maintaining, and using all firefighting and emergency medical equipment.

Mutual Aid Agreements

The California Disaster and Civil Defense Master Mutual Air Agreement, as provided by the California Emergency Services Act, provides statewide mutual aid between and among local jurisdictions and the state. The statewide mutual aid system exists to ensure that adequate resources, facilities, and other supports are provided to jurisdictions whenever resources prove to

be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities but can give and receive help whenever needed.

Schools

California Education Code

The California Code of Regulations, Title 5, Education Code, governs all aspects of education within the state. The California Education Code authorizes the California Department of Education (CDE) to develop site-selection standards, which require districts to select a site that conforms to certain net acreage requirements established in the CDE's (2000) *Guide to School Site Analysis and Development*. The guide includes the assumption that the land purchased for school sites will be in a ratio of approximately 2:1 between the developed grounds and the building area. If the "availability of land is scarce and real estate prices are exorbitant," the site size may be reduced. CDE policy states that if a school site is less than the recommended acreage required, the district shall demonstrate how the students will be provided an adequate educational program, including physical education, as described in the district's adopted course of study. Through careful planning, a reduced project area school site could follow the recent trend of school downsizing and meet the CDE's criteria.

California State Assembly Bill 2926 – School Facilities Act of 1986

In 1986, Assembly Bill (AB) 2926 was enacted by the State of California authorizing entities to levy statutory fees on new residential and commercial/industrial development in order to pay for school facilities. AB 2926, entitled the School Facilities Act of 1986, was expanded and revised in 1987 through the passage of AB 1600, which added Section 66000 et seq. of the California Government Code.

Proposition 1A/Senate Bill 50

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998) created the School Facility Program where eligible school districts may obtain state bond funds. State funding requires matching local funds that generally come from developer fees. The passage of SB 50 eliminated the ability of cities and counties to require full mitigation of school impacts and replaced it with the ability for school districts to assess fees directly to offset the costs associated with increasing school capacity as a result of new development. The old "Stirling" fees were incorporated into SB 50 and are referred to as Level 1 fees. These fees are currently capped at $2.97 per square foot for new residential development and $0.47 per square foot for commercial and industrial (nonresidential) development and age-restricted senior housing. Districts meeting certain criteria may collect Level 2 fees as an alternative to Level 1 fees. Level 2 fees are calculated under a formula in SB 50. Level 3 fees are approximately double Level 2 fees and are implemented only

when the State Allocation Board is not apportioning state bond funds. The passage of Proposition 1D on November 7, 2006, precludes the implementation of Level 3 fees for the foreseeable future. Although SB 50 states that payment of developer fees are "deemed to be complete and full mitigation" of the impacts of new development, fees and state funding do not necessarily fully fund new school facilities.

Proposition 55

Proposition 55 is a school construction measure passed in 2004 authorizing the sale of approximately $12.3 billion in bonds to fund qualified K–12 education facilities to relieve overcrowding and to repair older schools. Funds target areas of the greatest need and must be spent according to strict accountability measures. These bonds would be used only for eligible projects. Approximately $10 billion would be allocated to K–12 schools, with the remaining $2.3 billion allocated to higher education facilities.

Parks

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fees are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds.

Local

Fire

Los Angeles County Fire Code

The County Fire Code consists of fire prevention provisions, development specifications for Very High Fire Hazard Severity Zones, and fuel modification requirements for newly constructed or remodeled buildings and structures in Very High Fire Hazard Severity Zones.

Fire prevention provisions covered in the County Fire Code include fire apparatus access roads, adequate road widths, all-weather access requirements, fire flow requirements, and fire hydrant spacing. The code also requires clearance of brush around structures located in hillside areas that are considered at risk for wildland fire.

The County Fire Code contains several sections that apply to development within Very High Fire Hazard Severity Zones. A land development plan and fuel modification plan must be completed and approved for projects located in these areas.

Los Angeles County Operational Area Emergency Response Plan

The County approved an Operational Area Emergency Response Plan in 1998, which was updated in 2012 (County of Los Angeles 2012). The plan establishes the County's emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts among the various emergency departments, agencies, special districts, and jurisdictions that make up the County Operational Area. The plan ensures the most effective allocation of resources for the protection of the public in the time of emergency.

Los Angeles County General Plan

The Safety Element of the existing adopted General Plan provides goals, policies, and programs for both wildland and urban fire hazards. The overall goal of the Safety Element as it relates to fire hazards is to reduce fire threats and protect property by ensuring adequate fire safety review of projects (especially those in areas of high fire hazard), coordinating with other agencies, improving vegetation and fuel management, and effectively managing watersheds (County of Los Angeles 1990).

~~2014~~ 2015 Draft Los Angeles County General Plan Update

The ~~2014~~ 2015 Draft General Plan Update[1] provides regulations for the requirement of fuel modification plans for projects located in areas designated as a Fire Severity Zone within the State Responsibility Areas or Very High Hazard Severity Zone within the Local Responsibility Areas (County of Los Angeles ~~2014~~ 2015). The purpose of the fuel modification plan is to designate the specific zones within a property that are subject to fuel modification (a portion of land where vegetation has been modified and/or replaced with drought-tolerant, low-fuel-volume plants).

Developer Fees

Chapter 22.68 of the Los Angeles (L.A.) County Code establishes procedures for the financing of public facilities, including fire stations. On July 12, 1990, the County Board of Supervisors adopted a resolution for the County's Developer Fee Program, which helps fund the purchase of

[1] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

fire station sites, construction of new stations, and funding of certain capital equipment in areas of the County that are experiencing high growth rates. The developer fees are as follows: $0.8990 per square foot of new development in the Santa Monica Mountains, $1.0293 per square foot of new development in the Santa Clarita Valley, and $0.8426 in the Antelope Valley. This fee, which is paid to LACoFD, is adjusted annually and applies to all new development.

Police

Law Enforcement Fees for North County

In response to an increased rate of residential development in the Santa Clarita Valley Planning Area, the County Board of Supervisors established law enforcement fees in 2008 to help develop law enforcement facilities that are proportional to population increases. When a new law enforcement building is not required, the fee is used to increase the existing service capacity. The County also established law enforcement fee areas in north County, each of which has a different fee that is adjusted on July 1 of every year.

Parks

The County's Parks and Recreation Element Goals and Policies in the General Plan Update as well as the County's Regional Recreation Areas Plan, which is part of the existing adopted General Plan, provides standards 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.

4.14.3 Thresholds of Significance

The significance criteria used to evaluate the proposed project impacts to public services are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the proposed project would:

A. 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
- Sheriff protection
- Schools
- Parks

- Libraries
- Other public facilities.

4.14.4 Impacts Analysis

Criterion 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:

The proposed project would have a significant impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: fire protection, sheriff protection, schools, parks, libraries, or other public facilities.

Operation of the proposed project would potentially result in vegetation ignitions or wildfire from equipment failure. However, future small-scale renewable energy systems and temporary meteorological (MET) towers would be developed as an accessory use and would generally be developed in areas where infrastructure and services systems already exist.

Fire protection?

The proposed project involves an ordinance amending L.A. County Code Title 22 (the Zoning Code) to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. As renewable energy systems and facilities are developed pursuant to the proposed Zoning Code amendments, a direct increase in demand for the 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 systems or 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. In addition, if road closures would be required during the construction or decommissioning phases of the proposed project, delays in fire service response times may occur. If road closures would be

required during activities related to future renewable energy ~~system~~ projects, a traffic control plan shall be prepared for the construction phase of the proposed project; see Sections 4.8, Hazards and Hazardous Materials~~, and 4.15, Recreation,~~ of this EIR for further details. The traffic control plan is required to outline the procedures for notifying the police and fire departments of forthcoming lane or roadway closures. This will allow the police and fire department to modify emergency response plans and notify other public service providers of closures. In addition, the traffic control plan shall provide a detour route for any bike lanes that would be affected. The traffic control plan shall be submitted prior to issuance of any permits for project-related construction and decommissioning requiring encroachment onto roadways and be approved by the County Department of Public Works.

During the operation and maintenance phases, sources of ignition at renewable energy system or facility sites are expected to decrease considerably from existing and construction conditions due to the reduced fuels on site. As stated in the proposed Zoning Code amendments, any vegetative ground cover that is included on site as part of development of ground-mounted renewable energy systems and facilities (small scale and utility scale) would be required to be mowed ~~or cut~~ and maintained~~to no taller than 6 inches~~. Equipment that presents ignition sources during operations includes operations and maintenance buildings, the substation, vehicles, and small gas- or electric-powered hand tools. This equipment represents a risk of sparking or igniting nearby fuels when combined with vegetation, wildlife, vandals, and/or high wind conditions. Inverters, turbine areas, and trackers represent potential ignition sources. Fires could also occur from capacitors, transformers, generators, electrical controls, transmission equipment, hydraulic pumps and connections, and supervisory control and data acquisition systems due to potential mechanical failure or electrical malfunction. Wind turbine fires may also occur from lightning strikes. However, utility-scale wind energy facilities are typically equipped with a robust fire protection system installed in the turbine area (exciter, underfloor, lube oil piping, and turbine bearings). Fire protection systems may include, but are not limited to, automatic sprinkler, foam-water sprinkler, or deluge system. Utility-scale renewable energy facilities would also be equipped with an early-warning detection system to ensure that plant personnel are given notice of a fire ignition for early detections and response. When deemed necessary during discretionary review of small-scale wind energy systems, temporary MET towers, and utility-scale wind energy facilities, a lightning and surge risk assessment would be prepared. Wind turbines proposed in areas assessed to have a medium to high lightning and surge risk would be equipped with comprehensive lightning and surge protection adjusted to the individual type of turbine. The lightning and surge protection would cover the nacelle and rotor blades and any electrical equipment.

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 renewable energy facilities 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, if any, would not result in long-term, indirect increase in emergency service calls resulting in an increase in fire protection services or additional fire protection facilities.

In the event of a fire, service providers in the County would dispatch services from the closest station to the emergency call location to provide services. If services are not available at the nearest station, other LACoFD stations may be dispatched to address the fire emergency. In addition, if needed, fire protection services outside LACoFD's jurisdiction would respond according to the multiple mutual aid agreements in place. Therefore, the proposed project would not substantially increase the number of fire protection service calls such that new or expanded fire facilities or staff would be required to maintain acceptable service ratios and response times. Impacts to fire protection services would be **less than significant**.

Sheriff protection?

The proposed project involves an ordinance amending the Zoning Code 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 towers would not result in an increase in permanent residents that would require additional sheriff protection. Utility-scale renewable energy facilities may require small numbers of employees, who may relocate to the area with their families. This slight increase of residents in the area, if any, would not 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 to sheriff protection services would be **less than significant**.

Schools?

The proposed project involves an ordinance amending the Zoning Code to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed 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 towers would not result in an increase in permanent residents that would indirectly impact school service levels. Utility-scale renewable energy facilities may require small numbers of employees, who may relocate to the area with their families. This slight increase of residents in the area, if any, would not substantially increase the number of students such that new or expanded schools

would be required. Impacts to schools resulting from implementation of the proposed project would be **less than significant**.

Parks?

The proposed project involves an ordinance amending the Zoning Code to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed project does not include housing and therefore would not directly cause in increase in population that would require new or expanded parks. The development of small-scale renewable energy systems and temporary MET towers would not result in an increase in permanent residents that would indirectly impact parks. Utility-scale renewable energy facilities 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, if any, would not expected to substantially increase the use of existing park facilities. Impacts to parks would be **less than significant**.

Libraries?

The proposed project involves an ordinance amending the Zoning Code to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed 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 towers would not result in an increase in permanent residents that would indirectly impact libraries. Utility-scale renewable energy facilities 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, if any, would not substantially increase the use of existing libraries; therefore, impacts to library services would be **less than significant**.

Other public facilities?

The proposed project involves an ordinance amending the Zoning Code to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed project does not include housing and would result in a minimal increase in employees, and therefore possibly permanent residents, in an area. However, this slight increase in employees or residents, if any, would not impact other public facilities. Therefore, impacts to public facilities would be **less than significant**.

4.14.5 Level of Significance Before Mitigation

The proposed project would result **less than significant** impacts related to public services.

4.14.6 Mitigation Measures

The proposed project would not result in potentially significant impacts related to public services; therefore, no mitigation measures are required.

4.14.7 Level of Significance After Mitigation

Impacts related to public services would be **less than significant**.

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4.15 RECREATION

This section describes the existing recreation setting of the proposed project area, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

4.15.1 Existing Conditions

Recreational opportunities within the County of Los Angeles (County) are provided by local and regional parks, designated open space areas, and a wide variety of recreational facilities.

County Recreational Uses

Parks

The County's park system, including facilities that are owned, operated, and maintained by the County, totals approximately 70,000 acres. The parks and recreation resources generally fall under two systems: the local park system and the regional park system.

The local park system consists of parks varying in sizes that meet local needs and offer opportunities for daily recreation. This system includes community parks, neighborhood parks, pocket parks, and park nodes.

The regional park system is intended to meet the park and recreational needs of residents and visitors throughout the County. This system consists of community parks, regional parks, and special-use facilities.

Table 4.15-1, Existing County Parkland, summarizes the acreage of local and regional parkland by Planning Area. In addition, the County offers multi-user trails and access to other recreational facilities, such as city parks and facilities and private recreation facilities.

There are large portions of the County that are lacking in parks and recreational facilities. Table 4.15-2, Unincorporated County Parkland Assessment, shows the current parkland deficit as determined by the population-based parkland requirements in the County's ~~existing adopted~~ General Plan. Table 4.15-3, Projected Future Unincorporated County Parkland Needs, shows the projected parkland needs by year 2035.

Trails

The County offers trails that provide diverse scenery and connections to parks, open spaces, cultural resources, and wilderness areas. Typical trail uses range from hiking and walking trails to mountain biking, equestrian, and multi-use (equestrian, mountain biking, and hiking) trails.

A wide variety of trails offer varying experiences, including, but not limited to, exercise, solitude, spiritual practices, physical and mental well-being, building social networks, testing athletic skills, and experiencing nature. Figure 4.1-3, Regional Trail System, in Section 4.1, Aesthetics, of this environmental impact report (EIR) depicts the County's regional trail system.

Other Recreational Facilities

Other recreational activity sites in the County include multi-benefit parks and open spaces, school sites, city parks and facilities, private recreational facilities, and greenways. Multi-benefit parks have more than one function. The County collaborates with school districts to provide joint recreational and educational programs.

Recreational Programs

The County's Department of Parks and Recreation (DPR) offers a wide variety of recreational programs to meet the diverse needs of County residents. The program aims to serve a diverse group, including children, teenagers, adults, seniors, and families. The programs range from organized sports, tournaments, scheduled classes, and special events to more individualized, casual leisure activities such as family picnics and walking.

Nationally Designated Parks, Recreation Areas, and Forests

U.S. National Forest Land

Los Padres National Forest and Angeles National Forest are located within the County's jurisdictional boundary but are governed by the U.S. Forest Service (USFS).

Los Padres National Forest

The Los Padres National Forest consists of 1,781,364 acres of federally managed public lands that span Kern, Los Angeles, Monterey, San Luis Obispo, Santa Barbara, and Ventura Counties. The Los Padres National Forest is located in the northwestern portion of the County. Recreational opportunities include 1,680 miles of trails for hiking, backpacking, horseback riding, mountain biking, and off-road vehicle use, as well as hunting, fishing, rock climbing, and hang gliding.

Angeles National Forest

The Angeles National Forest spans Los Angeles, San Bernardino, and Ventura Counties and includes 420,877 acres of federally managed public lands. The Angeles National Forest portion within the County is roughly synonymous with the San Gabriel Mountains. Recreational opportunities include 557 miles of hiking and equestrian trails, camping and picnicking grounds, boating, swimming, target shooting ranges, hunting, off-road vehicle use, fishing, and winter sports.

Santa Monica Mountains National Recreation Area

The Santa Monica Mountains National Recreation Area, located near Malibu, California, encompasses approximately 156,670 acres primarily in the Santa Monica Mountains. The National Park Service manages the Santa Monica Mountains National Recreation Area. Recreational opportunities include over 500 miles of trails for hiking, mountain biking, and horseback riding; rock climbing; camping; fishing; water sports and activities; and historic sites.

San Gabriel Mountains National Monument

On October 10, 2014, President Barack Obama officially designated approximately 346,177 acres of the Angeles National Forest as the San Gabriel Mountains National Monument. This area supports similar recreational opportunities as the rest of the Angeles National Forest, such as hiking, mountain biking, off-road vehicle use, equestrian trails, and camping.

California Coastal National Monument

The California Coastal National Monument encompasses the entire 1,100-mile coast of California, extending 12 nautical miles from the shoreline, and includes over 20,000 small islands, rocks, exposed reefs, and pinnacles. The Bureau of Land Management oversees the California Coastal National Monument. Although the primary purpose of this national monument is to protect and manage the coastal habitat, wildlife, and ecosystem resources, the California Coastal National Monument also provides opportunities for water and ocean-oriented recreational activities, as well as sightseeing.

4.15.2 Relevant Plans, Policies, and Ordinances

Federal

Renewable Resources Planning Act/National Forest Management Act

The Renewable Resources Planning Act was enacted in 1974 and amended by the National Forest Management Act of 1976. The Secretary of Agriculture is responsible for the preparation of a Renewable Resource Assessment every 10 years; transmitting a recommended Renewable Resources Program to the president every 5 years; developing, maintaining, and revising land and resource management plans for the National Forest System; and ensuring that the development and administration of the resources of National Forest System are in agreement with the concepts of multiple use and sustained yield.

U.S. Forest Service – Land Management Plan

The USFS manages National Forest System lands to provide goods and services while protecting ecosystems of the forest. The Land Management Plan (USFS 2005) is a land and resource management plan for the Southern California national forests, including those outside County jurisdiction (Angeles National Forest, Cleveland National Forest, Los Padres National Forest, and San Bernardino National Forest). The Land Management Plan consists of three parts (Part 1 – Vision, Part 2 – Strategy, and Part 3 – Design Criteria).

Part 1, Vision, describes the national goals of the USFS and its vision for USFS lands. Part 1 provides site-specific planning and decision making for the four national forests in Southern California (Angeles, Los Padres, Cleveland, and San Bernardino). Goal 4.1b is to administer renewable energy resource developments while protecting ecosystem health.

National forests have an essential role in contributing to an adequate and stable supply of renewable energy resource developments while continuing to sustain the land's productivity for other uses and its capability to support biodiversity goals. The national forests will support the use of solar, wind, and hydro-electric energy resources to help meet the growing energy needs of Southern California while protecting other resources, as described in Part 2, Strategy. Furthermore, the national forests generate timber and chipped wood material as a byproduct of ecosystem management, healthy forest restoration, fuel management, and community protection projects.

Part 2, Strategy, identifies renewable energy as a suitable use within areas designated as Developed Area Interface and/or Back Country. Developed Area Interface areas consist of 85,828 acres, or 13%, of the Angeles National Forest. This zone includes areas adjacent to communities or concentrated use areas and development sites with more scattered or isolated community infrastructure. Back County areas account for 161,392 acres, or 24%, of the national forest. This zone includes areas that are generally underdeveloped with few roads.

Areas designated as Back Country motorized-use restricted and Back Country non-motorized use allow renewable energy resources by exception. Back Country motorized-use restricted areas consist of 52,791 acres, or 8%, of the Angeles National Forest. This zone includes areas that are generally undeveloped with few roads. Few facilities are located in this zone, but some may occur in remote locations. Administrative access is intermittent and generally limited to existing roads or to temporary roads needed for resource management purposes. The intent is to use temporary roads or gated permanent roads while management is occurring and then gate the permanent roads or remove the temporary routes when done. Back Country non-motorized areas account for 248,399 acres, or 37%, of the Angeles National Forest. This zone generally includes areas of the national forest that are undeveloped with few roads and is managed for a range of non-

motorized uses. Access to authorized facilities and to private land is not anticipated but may occur by exception when there are existing rights to such access.

Part 3, Design Criteria, of the Land Management Plan provides the standards, guidelines, laws, policies, or other direction that may be applicable to proposed activities, to achieve the proposed vision provided in Part 1.

Forest and Rangeland Renewable Resources Planning Act

The Forest and Rangeland Renewable Resources Planning Act of 1974 provides long-range planning by USFS for the protection of forest resources in the future. This act requires that a renewable resource assessment and a USFS plan be prepared every 10 and 5 years, respectively, to preserve National Forest resources for the future.

Strategic Energy Framework

In January 2011, USFS approved a Strategic Energy Framework, which provides the structure to contribute to national energy security, environmental quality, and economic opportunities through sustainable land management, energy production, and conservation. Two major national forest areas are located in the County: Los Padres National Forest (located in the northwestern portion of the County) and Angeles National Forest (located in the eastern portion of the County) (USFS 2011).

State

Quimby Act

The California Quimby Act authorizes the County to require the dedication of land or payment of fees for park and recreational purposes. The Quimby Act establishes a standard of dedicating 3 acres of parkland per 1,000 residents for subdivisions. However, as a condition of zone change approval, general plan amendment, specific plan approval, or development agreement, the County may require a subdivider to dedicate land according to the General Plan standards of 4 acres of local parkland per 1,000 residents in the unincorporated areas. For the County's Quimby Act Ordinance, the unincorporated areas are divided into 47 park Planning Areas based on location and neighborhood characteristics. The Quimby fees generated in one park Planning Area may not be used for other park Planning Areas.

Mello-Roos Community Facilities Act of 1982

This act provides for a method of financing certain public capital facilities and services, especially in areas undergoing development or rehabilitation. It allows local agencies to establish Community Facilities Districts as a means of obtaining community funding.

Landscaping and Lighting Act of 1972

This act is part of the California Streets and Highway Code, Sections 22500–22509. Under this act, local legislation can establish landscaping and lighting districts and can levy assessments for the construction, installation, and maintenance of public landscaping and lighting improvements. These districts may be established to help maintain local parks.

Local

Existing Adopted General Plan

The California Government Code requires that each city and county adopt a general plan "for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning." In 1980, the County adopted the existing General Plan, which sets forth goals and objectives for the development of the County and includes land use projections to the year 2000.

The existing adopted General Plan contains nine elements, including the Park and Recreation Element. The County DPR guides development of parks and recreational facilities. The County standard for the provision of park land is 4 acres of local parkland per 1,000 residents of the population in the County's unincorporated areas (Park and Recreation Policy 3.1 of the existing adopted General Plan).

2015 Draft General Plan Update

The County is currently undergoing a process to update the General Plan. The General Plan Update[1] includes the Parks and Recreation Element, which characterizes the existing parkland system in the County and sets forth goals and policies for improving existing parks and for acquiring and developing new parks to meet the standards of 4 acres of local parkland per 1,000 residents in the unincorporated areas and 6 acres of regional parkland per 1,000 residents of the

[1] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

County (both incorporated and unincorporated areas). This element also includes goals and policies for trail systems.

Parks and Recreation Strategic Plan

The County DPR prepared the Parks and Recreation Strategic Plan in 1992 to guide the decision-making process for the future development of the parks and implementation of recreation programs. The Strategic Plan assesses future recreational needs; identifies goals, objectives, and policies for appropriate future actions; and includes recommendations based on needs, goals, and public involvement to guide future parks and recreational uses in the County. The 2003 update to the Strategic Plan included a road map to identify the various community recreational needs to meet the County's population growth and changes.

Proposition A

Proposition A funds are directed by the County Regional Park and Open Space District, which was created when voters approved Proposition A in 1992. Proposition A authorized an annual assessment on the majority of parcels in the County to fund the acquisition, restoration, or rehabilitation of real property for parks and park safety, senior recreation facilities, gang prevention, beaches, recreation, community or cultural facilities, trails, wildlife habitats, or natural lands, and maintenance and servicing of those projects.

County of Los Angeles Park Design Guidelines and Standards

Adopted in June 2014, the County Park Design Guidelines and Standards provide a common guide to designing the County-wide park system. The guidelines provide information regarding spatial organization, site layout, building design, circulation, recreation facilities, children's play areas, splash pads, passive recreation areas, park furnishings, landscaping, stormwater management, and utility infrastructure. Specifically, the County's DPR intends to reduce the use of non-renewable energy at parks by instead designing and planning for use of solar technology.

County of Los Angeles Trails Manual

The County Board of Supervisors adopted the County of Los Angeles Trails Manual in May 2011. The Trails Manual provides County staff and developers with guidelines and standards for trail planning, design, development, and maintenance of County trails.

4.15.3 Thresholds of Significance

The significance criteria used to evaluate the proposed project impacts to recreation are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the proposed project would:

A. 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.

B. Include neighborhood and regional parks or other recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

C. Interfere with regional open space connectivity.

4.15.4 Impacts Analysis

Criterion 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?

Parks within the County are operated and maintained by the County DPR. As of 2010, there were approximately 153 recreational facilities managed by the County DPR, totaling approximately 65,528 acres of recreation and open space. The County Regional Recreation Areas Plan, which is a part of the existing adopted General 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.

The proposed project involves amending Los Angeles County Code Title 22 (the Zoning Code) to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary meteorological (MET) towers. The proposed 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 towers would not result in a significant increase in permanent residents that would indirectly impact parks. Utility-scale renewable energy facilities 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; therefore, **less than significant** impacts would occur.

Criterion B: Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed project involves an ordinance amending the Zoning Code to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed Zoning Code amendments do not include the construction or expansion of parks or other recreational facilities. It is possible that existing and/or planned parks and recreational facilities may be potential sites for future renewable energy systems and facilities permitted under the proposed project (the most likely candidate for use in parks would be small-scale solar energy systems). However, the construction of such future renewable energy systems or facilities on existing or planned park sites would not be considered an expansion of parks and recreational facilities, as they would not increase the usable recreation area. As discussed in Section 4.13, Population and Housing, the proposed project would not directly or indirectly induce population growth; therefore, it would not increase the demand for parks and recreational facilities such that their construction or expansion is necessitated. Additionally, because existing parks and recreational facilities are potential sites for projects permitted under the proposed project, the effects of future development on these sites are included in both the project and program level of analysis found throughout this EIR. Therefore, **no impacts** would occur.

Criterion C: Would the project interfere with regional open space connectivity?

The proposed project would establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary MET towers. The proposed Zoning Code amendments would allow renewable energy systems and facilities and temporary MET towers in various zones subject to standards and limitations.

Renewable wind energy systems and facilities, as allowed under the proposed Zoning Code amendments, require open space to harness high wind resource potential, and for that reason are generally located near ridgelines or hillside areas, or in open areas.

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or California Environmental Quality Act (CEQA) review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions as related to open space: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.

~~Furthermore, the proposed Zoning Code amendments require a minimum of 50 vertical feet and 50 horizontal feet setback from a significant ridgeline identified in the general plan, applicable area or community plan, or applicable community standards district.~~ The development of small-scale and utility-scale structure-mounted solar energy systems would not interfere with regional open space connectivity as these systems would be located on existing structures.

Under the proposed project, the development of small-scale ground-mounted solar energy systems (in O-S and W zones), wind energy systems and facilities (both small-scale and utility-scale), temporary MET towers, and utility-scale ground-mounted solar energy facilities would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed. Utility-scale ground-mounted renewable energy facilities would not be allowed within areas zoned for open space or within Significant Ecological Areas; however, they could be allowed in areas designated for agricultural, ~~certain residential,~~ commercial, or ~~mixed use~~manufacturing zones, as well as adjacent to open space ridgelines or other open areas. ~~Furthermore,~~However, for utility-scale ground-mounted solar energy facilities, the proposed Zoning Code amendments require a minimum setback of 50 vertical feet and 50 horizontal feet from a significant ridgeline identified in the general plan, applicable area or community plan, or in an applicable community standards district. For utility-scale ground-mounted wind energy facilities, the proposed Zoning Code amendments would require a setback of 50 vertical feet and 300 horizontal feet from a significant ridgeline identified in the general plan, applicable area or community plan, or in an applicable community standards district. The proposed Zoning Code amendments would also require slope setbacks for utility-scale ground-mounted wind energy facilities in the vicinity of Hillside Management Areas. In addition, a ~~site plan review~~CUP would be required for utility-scale ground-mounted renewable energy facilities. ~~Because the areas in which f~~Future utility-scale renewable energy facilities would be allowed ~~would be implemented~~ in areas planned for future development; as such, setbacks and height restrictions ~~and site plan review~~ would be required of these facilities, among other conditions of approval. Therefore, impacts to regional open space connectivity as a result of implementation of the proposed project would be **less than significant.**

4.15.5 Level of Significance Before Mitigation

No significant impacts to recreation would occur from implementation of renewable energy projects under the proposed project.

4.15.6 Mitigation Measures

No significant impacts to recreation would occur; therefore, no mitigation measures are required.

4.15.7 Level of Significance After Mitigation

As stated previously, the proposed project would not result in significant impacts to recreation, and no mitigation measures are required. Impacts associated with the proposed project will remain less than significant.

Table 4.15-1
Existing County Parkland (in acres)

Planning Area	Local	Regional	Total
Antelope Valley	50	3,870	3,920
Coastal Islands	0	41,000	41,000
Urban Communities	558	24,116	24,674
Total	**609**	**68,986**	**69,594**

Source: County of Los Angeles ~~2014~~2015.

Table 4.15-2
Unincorporated County Parkland Assessment

Planning Area	Unincorporated County Population 2010	Existing Parkland Acreage	Surplus/ Deficit Acreage
Antelope Valley	3,488	50	-244
Coastal Islands	368	0	-1
Urban Communities	983,232	559	-3,375
Total	**1,057,088**	**609**	**-3,620**

Source: County of Los Angeles ~~2014~~2015.

Table 4.15-3
Projected Future Unincorporated County Parkland Needs

	Unincorporated Population Projection 2035	Current Local Parkland Acreage	Surplus/Deficit Acreage
Total	**1,648,695**	**609**	**-5,986**

Source: County of Los Angeles ~~2014~~2015.

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4.16 TRAFFIC AND CIRCULATION

This section describes the existing traffic and circulation setting of the proposed project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The proposed project would apply to properties located in the unincorporated portions of the County of Los Angeles (County) over which the County has land use jurisdiction. The exact location of potential renewable energy development is currently unknown; therefore, this section will provide an overview of the transportation system within the County and will analyze potential effects of construction and operation of renewable energy projects on this transportation system. Dudek reviewed and considered the ~~2014~~ 2015 Draft General Plan Update and Draft and Final Environmental Impact Report (EIR); however, since the ~~2014~~ 2015 Draft General Plan Update and ~~Draft~~ associated EIR have not been ~~approved and~~ adopted by the County Board of Supervisors, certain background information discussed herein is used for informational purposes only.[1]

4.16.1 Existing Conditions

Existing Roadway Network

The unincorporated areas of the County are served by freeways, highways, and local road networks. Some of these roadways are maintained by the state and others are maintained by the County.

Freeways and Highways

The State Highway System is composed of interstate freeways and state-maintained freeways and highways, high-occupancy vehicle lanes, and county highways. Approximately 915 miles of freeway and highway extend throughout the County, and the California Department of Transportation (Caltrans) is the state agency responsible for the maintenance of freeways and highways (County of Los Angeles ~~2014~~2015). Table 4.16-1, Summary of Key Freeways and Highways in the Project Area, presents the key freeways and highways that extend through each of the three geographical categories of the unincorporated areas of the County.

Local Roads

The County's Department of Public Works (DPW) is generally responsible for the design, construction, operation, maintenance, and repair of roads in the unincorporated County and in a

[1] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

number of jurisdictions that contract with the County for these services. The roads maintained by DPW in unincorporated areas total more than 3,100 miles.

The County Highway Plan, described in Section 4.16.2, contains a roadway classification system that groups and describes the roadways within the County. Although specific roadways within the County are not identified in this section, the definitions used in the classification system provide a characterization of the types of roads that are located throughout the County. The classifications are identified in Table 4.16-2, Los Angeles County Highway Plan Roadway Classification System, along with a summary of their definitions.

Air Traffic

There are 15 public-use airports within the County, 13 of which are located within incorporated cities. The three airports that are located within unincorporated areas are the Catalina Island Airport, Frederick Sherman Field, and Agua Dulce Airport. The Catalina Island Airport and Frederick Sherman Field are both located within the Coastal Islands Planning Area, and the Agua Dulce Airport is located within the Santa Clarita Valley Planning Area. Due to the regional nature of air traffic, all airports within the County are included in Table 4.16-3, Los Angeles County Airports, and the respective County-designated Planning Area in which each is located is also identified. Of the 15 airports, Los Angeles International is the largest; it is also the third-busiest airport in the country.

Traffic Conditions and Trends

The County has one of the largest transportation systems in the world, and the County's growing population, coupled with the diversity of activities that take place within the County, creates burdens on the transportation system and its infrastructure. Among the six counties that are part of the Southern California Association of Governments (SCAG)—Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties—Los Angeles County has the highest percentage of travel that occurs in delay. Additionally, more than half of the vehicle miles traveled throughout the six-county SCAG region occur within Los Angeles County.

Table 4.16-4, Traffic Conditions throughout Los Angeles County, contains data sourced from the SCAG 2012–2013 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and characterizes the general traffic conditions in the County. The data in the table represents countywide information and, thus, includes data from both the incorporated and unincorporated regions of the County.

The ~~2014~~ 2015 Draft General Plan Update estimates that approximately 74% of residents in the unincorporated areas of the County drive alone to work, 13% carpool, and 6% use public transportation. Less than 2% of residents walk or bike to work. As part of the ~~2014~~ 2015 Draft

General Plan Update, the County plans to employ mobility management strategies to increase the convenience and availability of multimodal transportation options (County of Los Angeles ~~2014~~2015).

4.16.2 Relevant Plans, Policies, and Ordinances

State

California Department of Transportation

Caltrans is the public agency responsible for designing, building, operating, and maintaining California's state highway system, which consists of freeways, highways, expressways, toll roads, and the area between the roadways and property lines. Caltrans is also responsible for permitting and regulating the use of state roadways. Caltrans' construction practices require temporary traffic control planning during any activities that interfere with the normal function of a roadway.

Local

Los Angeles County Department of Public Works Level of Service Criteria

DPW uses level of service (LOS) to assess the congestion of roadways in the transportation system. Based on a roadway's volume-to-capacity ratio (the number of vehicles currently using the roadway compared to the ideal maximum number of vehicles that can efficiently use the roadway), a letter designation is assigned that represents the traffic flow conditions, or LOS. Letter designations "A" through "F" represent progressively declining traffic flow conditions. LOS designations indicate whether the roadways are operating in excess of their intended capacity. Acceptable LOS is determined on a case-by-case basis, but generally, Level D is the desired minimum LOS. In some instances, an LOS below D is deemed acceptable to further the County's general plan goals and policies, such as those that protect environmentally sensitive areas, promote active transportation, and encourage infill development, particularly within the County's designated transit-oriented districts. The definition of each LOS designation is provided in Table 4.16-5, Level of Service.

Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy

On April 4, 2012, the Regional Council of SCAG adopted the RTP/SCS. The County is one of six counties within SCAG, and accounts for more than half of the vehicle miles traveled within SCAG.

The RTP/SCS serves as a blueprint to address the mobility challenges created by Southern California's growing population and employment. It contains an integrated set of public

policies, strategies, and investments to maintain, manage, and improve the transportation system in the region.

Los Angeles County Congestion Management Plan

Since 1990, state statutes require that a congestion management program (CMP) be developed, adopted, and updated biennially for every county that includes an urbanized area. This program must include every city and the county government within that county. Federal congestion management requirements were included in the Intermodal Surface Transportation Efficiency Act in 1991. The CMP has several required elements, and discusses the links between land use, transportation, and air quality. The CMP identifies the regional transportation system, which includes all state highways and principal arterials, and sets LOS standards for these facilities.

The County's Metropolitan Transportation Authority (Metro) 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. In addition, 133 bus routes and Metro Rail and Metrolink corridors are also monitored by the CMP.

General Plan Transportation Element

The Transportation Element of the existing adopted General Plan sets the direction for the development of a comprehensive, coordinated, and continuing transportation system for the County. The Transportation Element identifies the major locations and corridors for existing and future travel based on existing and projected land use patterns (County of Los Angeles 1980).

2015 Draft General Plan Update

The County is currently undergoing a process to update the General Plan. The General Plan Update sets forth goals and objectives for the development of the County through year 2035. The General Plan Update includes the Mobility Element, which provides an overview of the transportation infrastructure and strategies for developing an efficient and multimodal transportation network. The Mobility Element assesses the challenges and constraints of the County's transportation system and provides policies to reach the County's long-term mobility goals. Two sub-elements—the Highway Plan and Bicycle Master Plan—supplement the Mobility Element. These plans establish policies for the roadway and bikeway systems in the unincorporated areas, which are coordinated with the networks in the 88 cities in the County.

Los Angeles County Highway Plan

The County Highway Plan, adopted on February 27, 1940, is a sub-element of the existing adopted General Plan's Transportation Element and has been amended 69 times. The County Highway Plan has served as the County-wide circulation plan, but with adoption of the revised Transportation Element, it has been superseded in this function by the General Plan Highway Policy Map. The County Highway Plan remains in effect, with modifications, as a supplementary part of the Transportation Element. The purpose of the County Highway Plan is to promote the orderly extension and upgrading of the planned arterial highway system in unincorporated territory by serving as a guide for right-of-way protection and roadway improvements within subdivisions and other development projects that are subject to County controls (County of Los Angeles 1980).

County Highway Policy Map

The intent of the County Highway Policy Map is to identify those areas and routes where the majority of funds should be expended for maintenance, rehabilitation, right-of-way protection, and new construction. Within the unincorporated County, all highways shown on the Highway Policy Map coincide and are consistent with the County Highway Plan (County of Los Angeles 1980).

County Bicycle Master Plan

The Los Angeles County Bicycle Master Plan was adopted in March 2012 as an update to the 1975 County Bikeway Plan, and provides policy guidance for building a comprehensive bicycle network throughout the unincorporated areas. The County Bicycle Master Plan is a sub-element of the Transportation Element of the existing adopted General Plan. The primary purpose of the County Bicycle Master Plan is to guide the development of infrastructure, policies, and programs that improve the bicycling environment; depict the general location of planned bikeway routes; and provide for a system of bikeways that is consistent with the existing adopted General Plan. The County Bicycle Master Plan contains maps depicting bikeways along roadways, rivers, creeks, and flood control facilities throughout the County. The County Bicycle Master Plan will become a component of the Mobility Element of the ~~2014 Draft~~ General Plan Update once it is adopted.

Community Pedestrian Plans

The ~~2014~~ 2015 Draft General Plan Update includes an implementation program to prepare community pedestrian plans for the unincorporated areas that will set standards for sidewalks, street crossings, sidewalk continuity, street connectivity, and topography. Although these plans are not currently in place, it can be expected that the County would begin developing these plans subsequent to adoption~~approval~~ of the ~~2014~~ 2015 Draft General Plan Update, and that

some of these plans may be in place during the ~~developed~~ development of renewable energy projects. ~~Community Pedestrian Plans would be implemented once the 2014 Draft General Plan Update has been approved and adopted.~~

Healthy Design Ordinance

The Healthy Design Ordinance was adopted by the County Board of Supervisors on February 5, 2013, and became effective March 7, 2013. The Healthy Design Ordinance seeks to implement policy, systems, and environmental changes to improve nutrition, increase physical activity, and reduce obesity, especially in disadvantaged children. The Healthy Design Ordinance proposes changes to existing zoning and subdivision regulations that are designed to increase levels of physical activity to assist in reducing the County's rates of obesity. The overall goal of healthy design is to improve public health through changes in the built environment (County of Los Angeles 2013).

4.16.3 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts to traffic and circulation are based on the County Department of Regional Planning Environmental Checklist Form (Initial Study). The proposed project would result in a significant impact if the project would:

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.

B. Conflict with an applicable Congestion Management Plan (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.

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.

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

E. Result in inadequate emergency access.

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.

4.16.4 Impacts Analysis

Criterion A: ***Would the project 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?***

In the County, the performance of the circulation system is typically measured through LOS, which assesses the congestion of roadways in the transportation system. Although the effective circulation of transit and non-motorized travel such as walking and biking are also considered important aspects of the performance of the County's circulation system, such modes of transportation would not be affected by the proposed project, because the project would not involve changes in streets, intersections, or substantial interruptions in non-motorized modes of travel. Traffic generated by the proposed project would be limited to minimal amounts of construction-related and maintenance-related vehicle traffic, as further described in this section. Additionally, the proposed project would be required to comply with regional transportation plans, such as the SCAG RTP/SCS and the Metro CMP, and the traffic generated by implementing the proposed project would be primarily related to construction. Such impacts generated by the proposed project would occur on a sporadic basis and would be temporary. Therefore, the proposed project would not be expected result in traffic that would affect regional transportation goals. Therefore, for the purposes of this analysis, the County's LOS thresholds will be considered the applicable measure for the performance of the County's circulation system. The LOS thresholds used by DPW are shown in Table 4.16-5, Level of Service.

The proposed project comprises a large study area encompassing the unincorporated portions of the County. The actual locations and actions of future project sites are unknown at this time; therefore, actual vehicle trip generation cannot be quantified. Additionally, the resulting LOS of roadways and intersections surrounding future project sites cannot be determined, as the potential locations of future projects include numerous areas throughout the County. The discussions have been divided into "construction" and "operations" when the amount of traffic generated would differ between these stages.

Project-Level Components

The proposed project would allow for development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or California Environmental Quality Act (CEQA) review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems

proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Construction activities for small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities would generate a minimal amount of traffic on project-area roadways. Construction traffic would be limited to the delivery of component parts and equipment, and to the workers who would install the equipment. Some small-scale systems would not require construction vehicles at the project site, since some can be installed by the property owner. Utility-scale structure-mounted solar facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These include solar collector arrays, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in industrial or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would most likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. As a result, these facilities are anticipated to require minimal ground disturbance or heavy construction equipment, if any.

Due to the brief construction period associated with installation of small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities, and because traffic generated by the construction of these facilities would be relatively minor, construction of such systems and facilities would not conflict with the County's LOS standards.

Additionally, traffic generated during operations would be minimal to none, possibly related to periodic trips from solar equipment manufacturers, as necessary. Maintenance activities for small-scale solar energy systems usually occur every 1 to 3 years, or as needs arise, and may not require vehicle trips. Often, annual maintenance consists of the property owner visually inspecting systems and checking that bearings are lubricated. If additional maintenance is required, it is anticipated that one vehicle and a small amount of equipment would access the site. Utility-scale structure-mounted solar energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Traffic generated during operations would be limited to cleaning and inspection once or twice annually.

Due to the minimal construction activities, the short construction period, and the minimal to no operational trips required**,** small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities would not conflict with the County's LOS standards, and impacts would be **less than significant**.

The amount of traffic associated with small-scale ground-mounted solar energy systems may be slightly higher than would be generated by the small-scale structure-mounted solar energy systems because more construction equipment may be needed for any ground disturbance, grading, or other site preparation activities. The proposed project limits the size of small-scale ground-mounted solar energy systems to a maximum coverage of 25% of the lot or parcel, or 2.5 acres, whichever is less. Additionally, these systems are required to provide energy primarily for on-site uses and therefore would be sized accordingly. Based on the limited size of these systems, construction time periods would likely be brief, and the number of vehicle trips required for construction would be low. Some additional vehicle travel may be required during grading of the site and pouring the concrete foundations for ground-mounted systems, and potentially for transporting the equipment. As with structure-mounted systems, operation trips would be minimal to none, and would generally be limited to periodic trips involving maintenance of the site and the system.

Due to the minimal construction activities, the short construction period, and the minimal to no operational trips**,** small-scale ground-mounted solar energy systems would not conflict with the County's LOS standards; therefore, impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Construction and operational activities and the resulting vehicle trips required for small-scale structure-mounted wind energy systems and temporary MET towers would be similar to those required for small-scale structure-mounted solar energy systems. Due to the minimal construction activities, the short construction period, the minimal to no operational trips, and the requirement for further discretionary review pursuant to the Minor CUP process, small-scale structure-mounted wind energy systems and temporary MET towers would not conflict with the County's LOS standards; therefore, impacts would be **less than significant**.

Construction and operational activities for small-scale ground-mounted wind energy systems and temporary MET towers would be similar to those for small-scale solar energy systems. However, due to the size of some wind turbines and temporary MET towers, future projects may require transport of heavy loads to the project site. For any project involving transport of oversized or excessive loads over state highways, a single-trip transportation permit would be required in accordance with the County Vehicle Code.

Due to the minimal construction activities, the short construction period, the minimal to no operational trips, and the requirement for further discretionary review, small-scale ground-mounted wind energy systems and temporary MET towers would not conflict with the County's LOS standards; therefore, impacts would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Construction

Utility-scale ground-mounted renewable energy facilities may have long construction periods, on the order of a year or more, and therefore could lead to increases in traffic near future project areas. Due to the amount of open land required to develop such facilities, it would not be expected that future facilities would be constructed in areas subject to high volumes of traffic. Therefore, the addition of temporary construction traffic may not cause an exceedance of LOS levels in future project areas. However, because the future size and location of such projects cannot be determined at this time, and because construction schedules can vary greatly depending on a number of factors, the vehicle trips required for future projects cannot be calculated. To determine whether a future utility-scale ground-mounted renewable energy facility would have the potential to impact existing traffic loads or exceed LOS thresholds, two sample projects were analyzed (one wind energy facility and one solar energy facility).

The first sample project would involve construction and operation of 128 large wind turbines, each with a 1.5- to 3.0-megawatt (MW) generating capacity range, for a total capacity of approximately 200 MW. This sample project assumes that construction would occur in an 18- to

24-month period. Project construction would typically occur Monday through Friday between 7:00 a.m. and 4:00 p.m. The construction phase would generate traffic from construction worker travel and the arrival/departure of trucks delivering construction materials and equipment. A typical day during the peak of the construction period would generate approximately 200 total truck trips, which would include the transportation of turbine components, movement of heavy equipment, and transport of material and concrete, as well as trips for water delivery and pump and subcontractor trucks. A total of up to 325 construction workers (125 on site and 200 delivery drivers) are expected at the project site on a typical day during the peak of the construction period. This sample project's a.m. and p.m. peak period (AM Peak Period and PM Peak Period; see Table 4.16-4) total is estimated to add 165 average daily trips to associated road segments. Therefore, project construction could potentially result in trips that would cause an increase in the traffic load and street system capacity.

The second sample project would construct and operate a 20 MW solar facility. This sample project assumes construction would occur for a 6-month period. Project construction would typically occur Monday through Friday between 7:00 a.m. and 4:00 p.m. Although this sample project would produce fewer megawatts than the sample wind energy project, the number of traffic trips would be greater due to the need for more water to be trucked in for concrete foundations and for dust suppression during ground disturbance, grading, and other site preparation activities. Utility-scale ground-mounted solar energy projects require significantly more coverage and ground disturbance than wind turbines. The number of workers expected on the site during construction would vary over the construction period, but is expected to average up to approximately 120 workers each day, with a maximum of 140 trips a day during the most intense phase of construction. Deliveries of equipment and supplies to the site would also vary over the construction period, but are expected to average five to seven trips daily. Maximum water deliveries would be approximately 55 daily round trips during the grading and ground disturbance phase. During the grading phase, approximately 221 average daily trips would be generated. The maximum number of workers would occur during installation of the racks and panels, when water deliveries would be considerably reduced, requiring approximately 10 water truck deliveries a day; equipment deliveries would be ongoing throughout this phase. The trips generated during this phase would be approximately 298 average daily trips, and could potentially cause an increase in the traffic load and street system capacity. This sample project conservatively assumes that all water would be delivered from off site. Therefore, similar or larger solar projects may have significantly fewer average daily trips if on-site wells are used for water needs.

The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and would require measures to minimize impacts to traffic. During the review process, DPW would be consulted and would determine whether or not the project would have a significant impact. Pursuant to the County's Traffic Impact Analysis Report Guidelines, criteria are used to evaluate whether a

proposed project could potentially have a significant adverse impact due to increased traffic and would therefore require preparation of a traffic impact analysis (TIA). If required, a TIA would evaluate project-specific trip generation, traffic safety impacts and hazards, and other appropriate information depending on which type of TIA is required. The TIA would assess site-specific conditions and would require projects to apply feasible mitigation, as necessary. Mitigation may include encouraging workers to carpool and timing construction so the most traffic-generating phases do not overlap. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level below significant, construction of future utility-scale ground-mounted renewable energy facilities may result in **potentially significant**, albeit temporary, impacts related to inconsistency with the County's LOS thresholds (**Impact TRF-1**).

Operation

Operational vehicle trips would be limited to, on average, 0 to 10 for on-site workers. Occasionally, maintenance activities could involve additional trips for inspections, cleaning the panels, or special equipment required to service the facilities. However, operational trips would be very limited and would not be expected to result in the exceedance of LOS thresholds. Due to the minimal operation trips that would be involved, and the requirement for further discretionary review, utility-scale ground-mounted facilities are not anticipated to conflict with the County's LOS standards; therefore, impacts are anticipated to be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities, by definition in the proposed Zoning Code amendments, include all equipment and accessory structures related to the facility. These would include wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in industrial or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, in place to support such a facility. Upgrades to existing substations or transmission lines may be required. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. If a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right of way. Additionally, utility-scale structure-mounted wind energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Therefore, they do not require operations and maintenance buildings. As a result, these facilities are anticipated to require minimal ground disturbance or heavy construction equipment, if any.

Due to the brief construction period associated with installation of utility-scale structure-mounted wind energy facilities, and because traffic generated by construction of these facilities would be relatively minor, construction of such facilities would not conflict with the County's LOS standards. Additionally, traffic generated during operation of these facilities would be minimal. Utility-scale structure-mounted wind energy facilities are typically monitored and operated remotely or by in-house maintenance staff. Traffic generated during operations would be limited to a cleaning and inspection once or twice annually. Therefore, utility-scale structure-mounted wind energy facilities would not conflict with the County's LOS standards, and impacts would be **less than significant**.

Criterion B: ***Would the project conflict with an applicable Congestion Management Plan (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?***

Metro 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 purposes of the CMP, 160 intersections and 81 key freeway segments in the County have been identified for monitoring. Furthermore, 133 bus routes and Metro Rail and Metrolink corridors are also monitored by the CMP. A significant impact from a project results if the trips anticipated to be generated would exceed the thresholds established by the CMP for the intersections and freeway segments that have been identified for monitoring.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Because the actual locations and actions of future project sites are unknown at this time, actual vehicle trip generation cannot be quantified, and it cannot be determined whether future projects would be located within proximity to an intersection or freeway segment designated for monitoring in the CMP. Although future projects could potentially be located within the vicinity of such an intersection or freeway segment, both construction and operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would result in minimal to no added vehicle trips, as described under Criterion A. Due to the minimal construction activities, the short construction period, and the minimal to no operational trips, impacts of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities relative to CMP thresholds would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and, therefore, would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

As stated under Criterion A, construction and operational activities and the resulting vehicle trips required for small-scale wind energy systems and temporary MET towers would be similar to those required for small-scale structure-mounted solar energy systems. Due to the minimal construction activities, the short construction period, the minimal to no operational trips, and the requirement for further discretionary review, impacts of small-scale wind energy systems and temporary MET towers relative to CMP thresholds would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Construction

As stated under Criterion A, construction activities related to utility-scale ground-mounted renewable energy facilities have the potential to result in significant impacts due to vehicle trips required to transport construction workers, construction equipment, and construction trucks. Although the location of future project sites relative to the locations of intersections and freeway segments identified in the CMP cannot be determined at this time, in the event that such a construction project were located within the vicinity of a CMP-monitored intersection or freeway segment, a potentially significant, albeit temporary, impact could occur. The CUP discretionary review process would require all future utility-scale ground-mounted renewable

energy facility projects to be evaluated under CEQA and would require measures to minimize impacts to intersection and freeway segments monitored by the CMP. DPW would be consulted during the review process, would determine whether the project would have significant impacts, and would identify applicable mitigation. Mitigation may include encouraging workers to carpool and designing the project to avoid potential impacts. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level below significant, construction of future utility-scale ground-mounted renewable energy facilities may result in **potentially significant**, albeit temporary, impacts related to inconsistency with the CMP (**Impact TRF-2**).

Operation

As stated under Criterion A, operational trips would be very limited and would not be expected to result in the exceedance of CMP thresholds. Due to the minimal operational trips that would be involved and the requirement for further discretionary review, utility-scale ground-mounted renewable energy facilities would not be anticipated to conflict with the CMP; therefore, impacts would be **less than significant.**

Utility-Scale Structure-Mounted Wind Energy Facilities

Construction

Utility-scale structure-mounted wind energy facilities would result in minimal vehicle trips, as described under Criterion A. Due to the minimal construction activities, the short construction period, and the minimal to no operational trips, impacts of utility-scale structure-mounted wind energy facilities relative to CMP thresholds would be **less than significant**.

Operation

As described under Criterion A, operational traffic trips required for utility-scale structure-mounted wind energy facilities would be minimal and would not conflict with the CMP thresholds; therefore, impacts would be **less than significant**.

Criterion C: Would the project 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?

Per the County's Initial Study Checklist Criteria, a significant impact would result for this criterion if a proposed project would generate an increase in population that would elicit substantial new demand for air travel and/or if a project structure would be more than 200 feet in

height or if it would be located within specified distances from public use airport, military airports, or public-use heliports.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities could be located near an airport and could be located within an Airport Land Use Plan area. However, the combined height of existing structures with a ~~small-scale~~ structure-mounted solar energy system or facility installed on top would be prohibited from exceeding the height limit of the zone in which the project is developed by more than 5 feet. ~~For utility-scale structure-mounted solar energy facilities, the height may not exceed the limit of the zone.~~ As the combined height of existing buildings and future systems and facilities would be limited and would not be permitted to substantially exceed the height limit of the applicable zone, such systems and facilities would not result in height issues relative to air traffic. In addition, installation and operation of such systems and facilities would not involve residential development and therefore would not have the potential to elicit an increase in air travel. Due to the height limits required by the proposed Zoning Code amendments, small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities would result in **less than significant** impacts relative to changes in air traffic patterns. Additionally, the proposed project would not generate an increase in population that would elicit substantial new demand for air travel; see Section 4.13, Population and Housing, for further details.

Small-scale ground-mounted solar energy systems could also be located near an airport and could be located within an Airport Land Use Plan. However, such systems would involve solar panels affixed to concrete foundations on the ground and would be limited to a maximum height of 15 feet and maximum coverage of 25% of the lot or parcel of land, or 2.5 acres, whichever is less. Such systems would not reach or exceed 200 feet in height. Furthermore, installation and operation of such systems would not involve residential development and therefore would not have the potential to elicit an increase in air travel. Because such systems would be affixed to the ground and would not exceed 200 feet in height, and because of the non-residential nature of the project, small-scale ground-mounted solar energy systems would result in **less than significant** impacts relative to changes in air traffic patterns.

Program-Level Components

Under the proposed project, development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and, therefore, would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

~~The effects of small scale structure mounted wind energy systems would be nearly the same as those of small scale structure mounted solar energy systems. As with small scale structure mounted solar energy systems, the proposed Zoning Code amendments include a requirement that the combined height of a structure and structure-mounted wind tower must not exceed the height limit of the applicable zone by more than 5 feet. Due to the height limits required in the proposed Zoning Code amendments, and due to the non-residential nature of the project, small-scale structure-mounted wind energy systems and temporary MET towers would result in **less than significant** impacts relative to changes in air traffic patterns.~~

Small-scale ~~ground-mounted~~ wind energy systems and temporary MET towers could be located near an airport and could be located within an Airport Land Use Plan area. Such systems would be required to comply with the height regulations established in the proposed Zoning Code amendments. The maximum allowable <u>tower</u> height would be 85 feet, which would be allowable in lots of 2 ~~gross~~ acres <u>or greater</u> in size. ~~Towers shorter than 200 feet would be required to be marked with alternating bands of aviation orange and white paint and have high-visibility sleeves installed on the outer guys with spherical marker balls of aviation orange color.~~ Furthermore, in the event that a future system were to be located near a public use airport, a military airport, or a public use heliport, Federal Aviation Administration (FAA) consultation would be required~~, per the County Initial Study~~. As with solar energy systems, installation and operation of small-scale ~~ground-mounted~~ wind-energy systems would not involve residential development and therefore

would not have the potential to elicit an increase in air travel. Due to the height limits required in the proposed Zoning Code amendments, the requirement to consult with the FAA, the non-residential nature of the project, and the requirement for further discretionary review, small-scale ~~ground-mounted~~ wind energy systems and temporary MET towers would result in **less than significant** impacts relative to changes in air traffic patterns.

Utility-Scale Ground-Mounted Renewable Energy Facilities

The effects of utility-scale ground-mounted solar energy facilities would be similar to those of small-scale ground-mounted solar energy systems, characterized previously. These facilities would not exceed 200 feet in height, as solar arrays would be limited to a maximum of 25 feet in height. Additionally, the proposed Zoning Code amendments include a variety of aviation-related measures to minimize potential effects to air traffic and air safety. (For a complete list of these requirements, refer to Table 3-2, Environmental Design Considerations, in Chapter 3, Project Description of this EIR.) The proposed Zoning Code amendments would require consultation with aviation-related agencies for all projects subject to discretionary review and located within Military Installations and Operations Areas as identified in the ~~2014 Draft~~ General Plan ~~Update~~ or applicable Airport Land Use Compatibility Plan(s). Aviation-related agencies that would be consulted may include the FAA, the U.S. Navy, Edwards Air Force Base, Air Force Plant 42, U.S. Forest Service, Caltrans – Division of Aeronautics, DPW – Aviation Division, County Forester and Fire Warden, and County Sheriff. ~~Additionally, utility-scale ground-mounted renewable energy facilities (both wind and solar) are prohibited from being located within the Runway Protection Zone of any airport. Such zones are shown on the County's airport land use plans. Furthermore, utility scale ground mounted renewable energy facilities (both wind and solar) are prohibited from penetrating "imaginary surfaces" (primary, approach, transitional, horizontal, and conical) as defined by FAA Federal Aviation Regulations Part 77. This measure would protect the use of navigable airspace.~~ Due to the ~~expected~~ height limitations of future utility-scale ground-mounted solar energy facilities, the aviation safety and consultation requirements that have been incorporated into the proposed Zoning Code amendments, the non-residential nature of the project, the requirement to undergo project-level discretionary review involving FAA consultation and/or consultation with other aviation-related agencies, and incorporation of all aviation agency requirements, impacts with respect to changes in air traffic patterns are expected to be **less than significant**.

Impacts related to utility-scale ground-mounted wind energy facilities would be similar to those specified for small-scale wind energy systems and temporary MET towers. However, towers associated with utility-scale wind energy facilities under the proposed project could be allowed to exceed 200 feet in height. The proposed Zoning Code amendments require all wind towers to comply with FAA standards, which currently include a safety light. Such facilities would be subject to the aviation-related requirements contained in the proposed Zoning Code amendments, which

are summarized in the preceding paragraph. Additionally, utility-scale ground-mounted wind energy facilities would be prohibited from being located within the Runway Protection Zone of any airport. Such zones are shown on the County's airport land use plans. Utility-scale ground-mounted wind energy facilities would also be prohibited from penetrating "imaginary surfaces" (primary, approach, transitional, horizontal, and conical) as defined by FAA Federal Aviation Regulations Part 77. This measure would protect the use of navigable airspace. Although such facilities could include components exceeding 200 feet in height, due to the aviation safety and consultation requirements that have been incorporated into the proposed Zoning Code amendments, the non-residential nature of the project, the requirement to undergo project-level discretionary review involving FAA consultation and/or consultation with other aviation-related agencies, and incorporation of all aviation agency requirements, impacts of utility-scale ground-mounted wind energy facilities with respect to changes in air traffic patterns are expected to be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

The effects of utility-scale structure-mounted wind energy facilities would be similar to those of small-scale structure-mounted wind and solar energy systems described previously. As with small-scale systems, the combined height of a structure and utility-scale structure-mounted wind energy facility would not be permitted to exceed the height limit of the zone by more than 5 feet. This amount of height increase on existing buildings would not be expected to change air traffic patterns. Additionally, FAA consultation would be required by the County during the project-level discretionary review. Due to the height limits required under the proposed Zoning Code amendments, the requirement to consult with the FAA as necessary, the non-residential nature of the project, and the requirement for further discretionary review, utility-scale structure-mounted wind energy facilities would result in **less than significant** impacts relative to changes in air traffic patterns.

Criterion D: Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Project-Level Components

The proposed project would allow for development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale

structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities would involve placing solar energy equipment, such as photovoltaic panels, on an existing structure or structure under construction, such as a rooftop. As such, future projects would not alter existing roads and would not involve the addition of ingress/egress points with the potential to cause a dangerous road condition. The proposed Zoning Code amendments require light and glare from the panels to be directed away from adjacent rights-of-way. Furthermore, as described under Criterion A, neither construction nor operation of such systems is likely to involve incompatible uses such as heavy vehicles. Although some construction vehicles may be required during the construction period, the vehicles required for installation of such systems and facilities would be few (if any), and would not be large in size. Since the small-scale structure-mounted solar energy systems and utility-scale structure-mounted solar energy facilities would not alter road conditions, light and glare from the panels would be directed away from adjacent rights-of-way, and construction of such systems would be temporary and would not require heavy vehicles resulting in incompatible road uses, impacts related to increase of road hazards would be **less than significant**.

The effects of small-scale ground-mounted solar energy systems would be similar to those characterized in the preceding paragraph for small-scale structure-mounted solar energy systems. As described under Criterion A, such systems may involve a slight increase in construction vehicles, as small amounts of grading and concrete pouring may be required to prepare the site for installation of solar panels. However, as stated under Criterion A, heavy construction vehicles would typically not be involved with construction or operation of such systems. Additionally, because such systems would be limited to a maximum height of 15 feet and a maximum coverage of 25% of the lot or parcel of land, or 2.5 acres, whichever is less, they are not expected to be associated with the addition of dangerous ingress/egress points or with the alternation of existing road design. Since small-scale ground-mounted solar energy systems would not alter road conditions and construction of such systems would be temporary and would not require heavy vehicles resulting in incompatible road uses, impacts related to increase of road hazards would be **less than significant**.

Program-Level Components

Under the proposed project, development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and, therefore, would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

The effects of small-scale wind energy systems related to introduction of hazardous road conditions would be generally the same as those characterized under small-scale solar energy systems. However, unlike small-scale solar energy systems, construction of small-scale wind energy systems (particularly those that are ground-mounted) would have the potential to involve transport of equipment that is large, such as wind energy equipment and/or temporary MET towers. For transport of oversized or excessive loads over state highways, the County Vehicle Code requires a single-trip transportation permit to be obtained from Caltrans. Because small-scale wind energy systems and temporary MET towers would not alter road conditions, because construction of such systems would be temporary, because of the requirement to obtain permits for transporting oversized or excessive loads over state highways, and because of the requirement for further discretionary review, impacts related to increase of road hazards would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Construction

Future utility-scale ground-mounted renewable energy facilities could include ancillary structures such as transmission lines, transformers, substations, or operations and maintenance buildings. As described under Criterion A, construction of such facilities and ancillary structures could involve potentially significant traffic effects resulting from construction vehicles, requiring consultation with DPW. There is the possibility that the introduction of construction traffic to an area could be associated with temporary access points and/or heavy construction vehicles that could result in a potentially dangerous roadway condition and/or an incompatible use. For transport of oversized or excessive loads over state highways, the County Vehicle Code requires a single-trip transportation permit to be obtained from Caltrans. However, depending on the locations of future projects, construction traffic, including heavy vehicles, could introduce an incompatible use.

The CUP discretionary review process for utility-scale ground-mounted renewable energy facilities would require all projects to be evaluated under CEQA and would require measures to minimize impacts involving the introduction of hazardous road conditions. Pursuant to the County's Traffic Impact Analysis Report Guidelines, criteria are used to evaluate whether a

proposed project could potentially have a significant adverse impact due to increased traffic and would therefore require the preparation of a TIA. If required, a TIA would include evaluation of project-specific trip generation, traffic safety impacts and hazards, and other appropriate information depending on which type of TIA is required. The TIA would assess site-specific conditions and would require projects to apply feasible mitigation, as necessary. Through the discretionary review process and CEQA, a traffic control plan (TCP) and construction notification procedures may also implemented, if necessary, to ensure safe and efficient traffic flow, including for emergency responders, in the immediate area and on the site during construction. TCPs are typically required if a proposed project would result in any road closures. The TCP would include provisions for construction times and control plans for allowance of bicycle, pedestrian, and bus access throughout construction. The TCP would also include provisions to ensure emergency vehicle passage at all times. Therefore, construction of future utility-scale ground-mounted renewable energy facilities would not result in potentially significant impacts related to the introduction of a hazardous road condition and/or an incompatible road use; impacts would be **less than significant**.

Operation

As described under Criterion A, operational traffic would be minimal and would not generally include heavy vehicles. Future projects would not involve permanent alterations to roadways resulting in a hazardous road condition. Although such projects may involve permanent access points associated with operations and maintenance buildings and other maintenance accesses, any access points would be required to be consistent with the County Vehicle and Traffic Code, which allows the County Board of Supervisors to designate places where traffic would be controlled by official traffic-control signals. Therefore, in the event that future maintenance-related access points for future utility-scale ground-mounted renewable energy facilities were to necessitate traffic control, existing regulations would allow the County Board of Supervisors to require such traffic control. Additionally, future project proponents would be required to mitigate any traffic impacts, including installation of any necessary signals. Therefore, operation of future utility-scale ground-mounted renewable energy facilities would result in **less than significant** impacts related to introduction of a hazardous road condition and/or an incompatible road use.

Utility-Scale Structure-Mounted Wind Energy Facilities

Construction

As indicated in Criterion A, few trips would be required during construction. As with utility-scale ground-mounted renewable energy facilities, a TCP would be prepared when necessary. TCPs are typically prepared when road closures are proposed. The TCP would include provisions for

construction times and control plans for allowance of bicycle, pedestrian, and bus access throughout construction. The TCP would also include provisions to ensure emergency vehicle passage at all times. The Minor CUP discretionary review process would require all future utility-scale structure-mounted wind energy facilities to be evaluated under CEQA and to implement measures to minimize impacts involving the introduction of hazardous road conditions, as necessary. Therefore, construction of future utility-scale structure-mounted wind energy facilities would not result in potentially significant impacts related to the introduction of a hazardous road condition and/or an incompatible road use; impacts would be **less than significant**.

Operation

As with utility-scale ground-mounted facilities, operation of future utility-scale structure-mounted wind energy facilities are not anticipated to introduce a hazardous road condition and/or an incompatible road use; therefore, impacts would be **less than significant.**

Criterion E: Would the project result in inadequate emergency access?

Per the County's Initial Study Checklist Criteria, a significant impact would result if construction and/or operation of future projects would block emergency access, would result in inadequate emergency access for the project itself, or would make an existing emergency access to off-site properties inadequate. Blocking an existing fire lane or causing emergency vehicles to detour are examples of these potentially significant effects. See also Section 4.8, Hazards and Hazardous Materials, Criterion G, of this EIR regarding emergency response and emergency evacuation plans.

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Emergency ingress/egress is established by the County Fire Code. Ingress/egress is necessary for both evacuation and to provide access for emergency vehicles in the event of a fire or other emergency. Installation/construction of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would potentially temporarily interrupt access to a site or surrounding area, including emergency ingress/egress. The Los Angeles County Fire Department (LACoFD) would review site plans for future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities to ensure that emergency access is provided to the site at all times.

Construction of these types of systems and facilities is not expected to require significant construction-related traffic; see Criterion A. Therefore, construction would not block emergency access or an emergency route. Additionally, the presence of solar equipment such as photovoltaic panels on rooftops or other structures or on the ground would not be expected to impinge emergency access in any way, as it would not be feasible to place such equipment within an emergency access point. Therefore, impacts of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities with respect to emergency access would be **less than significant.**

Program-Level Components

Under the proposed project, development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and, therefore, would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Installation/construction of small-scale wind energy systems would potentially temporarily interrupt access to a site or surrounding area, including emergency ingress/egress. However, to ensure safe and efficient traffic flow for all vehicles, including for emergency responders, a TCP and construction notification procedures would be implemented if road closures are proposed in the immediate area and on the site during construction activities. Furthermore, the presence of wind turbines on a structure or on the ground would not preclude emergency access. Due to the minor construction activities associated with small-scale wind energy systems and temporary MET towers, and due to the types of structures that would result, impacts of small-scale wind energy systems and temporary MET towers with respect to emergency access would be **less than significant.**

Utility-Scale Ground-Mounted Renewable Energy Facilities

Construction

Future utility-scale ground-mounted renewable energy facilities could include ancillary structures such as transmission lines, transformers, substations, or operations and maintenance buildings. Although construction of utility-scale ground-mounted renewable energy facilities would not be expected to preclude emergency access to the site itself or to off-site areas, the locations of future projects relative to emergency access routes and the volumes and patterns of construction traffic that would temporarily result from future projects cannot be determined at this time. Therefore, there is the potential that construction activities of a future project could interfere with emergency access. The CUP discretionary review process for utility-scale ground-mounted renewable energy facilities would require all projects to be evaluated under CEQA and to implement measures to minimize impacts involving any obstructions to emergency access. During the discretionary review process, LACoFD would be consulted and would determine whether the project would have significant impacts and if any mitigation is needed. Mitigation may include project redesign to avoid obstructing emergency access or a requirement to provide alternative emergency access.

The CUP discretionary review process for utility-scale ground-mounted renewable energy facilities would require all projects to be evaluated under CEQA and would require measures to minimize impacts involving the introduction of hazardous road conditions. Through the discretionary review process and CEQA, a TCP and construction notification procedures may also be implemented, if necessary, to ensure safe and efficient traffic flow for all traffic, including for emergency responders, in the immediate area and on the site during construction activities. TCPs are typically required if a proposed project would result in any road closures. The TCP would include provisions to ensure emergency vehicle passage at all times. Additionally, future projects would be required to comply with the County's Title 32 Fire Code, which includes regulations related to emergency evacuation plans, signs, procedures, road standards, and access requirements. Therefore, construction of future utility-scale ground-mounted renewable energy facilities would result in **less than significant** impacts related to obstruction of emergency access.

Operation

Operational activities for utility-scale ground-mounted renewable energy facilities would take place generally within site boundaries and would not be expected to obstruct emergency access. Although future projects could include off-site equipment such as transmission lines, transformers, and substations, such equipment would not be placed within an emergency route such as a fire lane or a roadway so that traffic, including emergency access, would be impeded. Because operation would take place within site boundaries, because of the infeasibility of locating

off-site equipment within emergency access routes, and because of the discretionary review process that future projects would be required to undergo, operation of future utility-scale ground-mounted renewable energy facilities would be anticipated to result in **less than significant** impacts relative to emergency access.

Utility-Scale Structure-Mounted Wind Energy Facilities

As with utility-scale ground-mounted renewable energy facilities, utility-scale structure-mounted wind energy facilities would be subject to compliance with the County's Title 32 Fire Code, which includes regulations related to emergency evacuation plans, signs, procedures, road standards, and access requirements. Additionally, the Minor CUP discretionary review process for utility-scale structure-mounted wind energy facilities would require all projects to be evaluated under CEQA and would require implementation of measures to minimize impacts involving any obstructions to emergency access. LACoFD would be consulted during the discretionary review process, would determine whether the project would have significant impacts, and would identify any appropriate mitigation. Mitigation may include project redesign to avoid obstructing emergency access or a requirement to provide alternative emergency access. A TCP would be required if road closures are proposed, which would include provisions for construction times and control plans to ensure emergency vehicle passage at all times. Therefore, impacts would be **less than significant**.

Criterion F: Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

A significant impact would result if a project were to conflict with plans related to public transit, biking, or the provision of pedestrian facilities. Applicable plans and policies include the existing adopted General Plan, the ~~2014~~ 2015 Draft General Plan Update, the Transit Oriented District Ordinance, the County Bicycle Master Plan, and the Healthy Design Ordinance.

The existing adopted General Plan outlines policies to provide a balanced, multimodal transportation system to serve the mobility needs of residents and to support established and projected land use patterns. Applicable policies include the following:

- Providing transportation planning, services, and facilities that are coordinated with and support the County General Plan.
- Providing transportation planning, services, and facilities that provide access for equitable employment, educational, housing, and recreational opportunities.
- Planning and developing bicycle routes and pedestrian walkways.

- Coordinating land use and transportation policies.
- Supporting the development of a mass transportation system that will provide a viable alternative to the automobile.
- Supporting continued improvement and expansion of the present bus system as a public service.
- Supporting a public transit system that provides accessible service, particularly to the transit dependent.

The Plan of Bikeways is a sub-element of the Transportation Element of the existing adopted General Plan. The Plan of Bikeways depicts the existing and future improved bike systems.

For disclosure purposes, although the ~~2014~~ 2015 Draft General Plan Update and the Transit Oriented District Ordinance have not yet been adopted, they are anticipated to be in place while the proposed Zoning Code amendments are also in place. Potentially applicable aspects of each plan or ordinance are summarized below:

- The Transit Oriented Development Ordinance, once adopted, would apply to projects within a certain proximity to transit stations along the Blue and Green Metro rail lines. Within these areas, increased densities are allowed and use of mass transit and pedestrian activity are encouraged.
- The County Bicycle Master Plan seeks to increase the number of people cycling in the County and to improve safety and convenience for cyclists by planning for an additional 800 miles of new bikeways. The plan also calls for more supportive facilities such as bicycle parking facilities and end-of-trip amenities such as changing rooms and showers.
- The County's Healthy Design Ordinance has the goal of promoting better physical health by making it easier and more pleasant to walk along the unincorporated County's sidewalks. This ordinance calls for an increase in the minimum sidewalk width and the planting of streets trees and landscaping where possible.

Based on the goals and policies of the above plans and ordinances, the proposed project could result in a significant impact if it were to preclude or decrease access to and development of mass transit, bikeways, or pedestrian facilities. However, all projects are required by the County to comply with adopted plans and policies for alternative transportation.

Project-Level Components

The proposed project would allow for development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the

following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would, therefore, undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Installation and operation of solar panels, whether on rooftops or other structures or on the ground, would not be expected to affect public transit, bicycle, or pedestrian facilities, or to decrease access to such facilities. Structure-mounted solar systems and facilities would involve minimal construction activities and minor to no construction-related traffic; refer to Criterion A in this section. Additionally, once such systems or facilities are installed, they would be located on existing rooftops or other structures, and would not physically conflict with any transit routes, bikeways, or pedestrian facilities. Similarly, as ground-mounted systems are anticipated to be limited in size due to the maximum height of 15 feet and a maximum coverage of 25% of the lot or parcel of land, or 2.5 acres, whichever is less, specified in the proposed Zoning Code amendments, construction activities would also be minimal and would involve minor construction-related traffic. Although small-scale ground-mounted solar energy systems could potentially be installed within bikeways or pedestrian facilities, such systems would require a Zoning Conformance Review. Although this review does not involve discretionary review, it would allow the County to ensure that ground-mounted solar energy systems are not installed within existing alternative transportation routes. Therefore, due to the limited nature of construction activities, the types of structures being proposed, and the Zoning Conformance Review required for ground-mounted systems, future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not obstruct or degrade alternative transportation routes, and would not preclude future routes from being developed. As future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be required to comply with all adopted policies, plans, and programs for alternative transportation and would not impact or involve alternative transportation modes or routes, such systems and facilities would not conflict with adopted or soon-to-be adopted policies, plans, or programs for alternative transportation facilities and would not decrease the performance or safety of such facilities. As such, **less than significant** impacts would result.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and, therefore, would be evaluated under CEQA on a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Impacts of small-scale wind energy systems and temporary MET towers relative to alternative transportation plans and policies would be generally the same as those previously described for small-scale solar energy systems. As future small-scale wind energy systems and temporary MET towers would not impact or involve alternative transportation modes or routes, such systems are not anticipated to conflict with adopted or soon-to-be adopted policies, plans, or programs for alternative transportation facilities and would not significantly decrease the performance or safety of such facilities. Furthermore, such systems would be subject to further discretionary review and would also be required to comply with all adopted policies, plans, and programs for alternative transportation. As such, future small-scale wind energy systems and temporary MET towers are anticipated to result in **less than significant** impacts with respect to conflicting with adopted or soon-to-be adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities and with respect to the performance and safety of such facilities.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Future utility-scale ground-mounted renewable energy facilities could include ancillary structures such as transmission lines, transformers, substations, or operations and maintenance buildings. Future utility-scale ground-mounted renewable energy facilities could involve potentially significant levels of construction traffic, and could also involve permanent removal of large areas of land from other types of development, such as development of alternative transportation. However, due to land requirements, topographical requirements, and climate requirements of utility-scale ground-mounted renewable energy facilities, such facilities are anticipated to be developed primarily in rural areas, such as the Antelope Valley, as such areas would be expected to have enough land available. Typically, the rural areas of the County are not heavily developed with alternative transportation routes, and there are no Transit Oriented Districts being proposed within the Antelope Valley. Furthermore, all projects would be required to comply with any adopted policy, plan, or program for alternative transportation in the County. In some cases, compliance may involve improvements to rights-of-way, as determined by DPW. Due to the anticipated locations of utility-scale ground-mounted renewable energy facilities; the requirement to comply with adopted polices, plans, and programs for alternative transportation; and the discretionary review process that future projects would undergo, the

impacts of utility-scale ground-mounted renewable energy facilities with respect to policies, plans, and programs regarding alternative transportation facilities and with respect to the performance and safety of such facilities are anticipated to be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would be located on the rooftops of existing buildings, and could be located within Transit Oriented Districts or in areas developed with alternative transportation. However, placing renewable energy equipment on the tops of buildings and other structures is not expected to preclude the development of alternative transportation or to reduce the performance and/or safety of alternative transportation facilities. Due to the locations of utility-scale structure-mounted wind energy facilities (such as on rooftops); the requirement to comply with adopted polices, plans, and programs for alternative transportation; and the discretionary review process that future projects would undergo, the impacts of utility-scale structure-mounted wind energy facilities with respect to policies, plans, and programs regarding alternative transportation facilities and with respect to the performance and safety of such facilities are anticipated to be **less than significant**.

4.16.5 Level of Significance Before Mitigation

Without mitigation, the following impacts would be **potentially significant**:

Impact TRF-1 Potential short-term, temporary exceedance of County traffic thresholds from construction of utility-scale ground-mounted renewable energy facilities.

Impact TRF-2 Potential short-term, temporary conflict with Congestion Management Plan standards during construction of utility-scale ground-mounted renewable energy facilities.

4.16.6 Mitigation Measures

The following mitigation measure (MM) is proposed to reduce potentially significant impacts:

MM TRF-1 During the environmental review process for future discretionary utility-scale ground-mounted renewable energy facilities, consultation with the County of Los Angeles Department of Public Works (DPW) regarding construction-related traffic shall be required. In the event that DPW requires a traffic impact analysis (TIA), a TIA shall be conducted and submitted to DPW. When traffic impacts are determined to be significant, feasible and appropriate project-specific mitigation measures as specified by DPW and/or in the TIA shall be incorporated into the project. Examples of standard mitigation measures

required include designing the project to avoid potential impacts; installing temporary traffic controls near construction sites; making physical road improvements; and implementing transportation demand management programs, including encouraging construction workers to carpool.

As it cannot be concluded at this stage that traffic impacts from utility-scale ground-mounted renewable energy facilities allowed under the proposed project would be avoided or mitigated, impacts would remain significant and unavoidable. Chapter 6, Alternatives, provides a discussion of alternatives to the proposed project that would result in some reduced impacts associated with transportation plan conflicts as compared to the proposed project.

4.16.7 Level of Significance After Mitigation

Impact TRF-1, Impact TRF-2

MM TRF-1, identified in Section 4.16.6, would not reduce impacts to a less than significant level; therefore, impacts would remain **potentially significant and unavoidable**.

Table 4.16-1
Summary of Key Freeways and Highways in the Project Area

Planning Area	Key Freeways and Highways
Antelope Valley	
Antelope Valley Planning Area	**I-5**: Extends northwest–southeast along the western portion of the valley, just east of the Ventura County line **SR-14**: Extends northeast–southwest through the Santa Clarita Valley and north through the Antelope Valley, traversing the cities of Lancaster and Palmdale **Highway 138**: Extends east–west from its junction with I-5 south of Forman, eastward to Mount Anderson Junction at SR-18 south of Crestline in the San Bernardino Mountains
Coastal Islands	
Coastal Islands Planning Area	None
Unincorporated Urban Islands	
Santa Clarita Valley Planning Area	**I-5**: Continues northwest–southeast from the Antelope Valley across the western portion of the Santa Clarita Planning Area **SR-14**: Extends northeast–southwest across the City of Santa Clarita and to the Antelope Valley
Santa Monica Mountains Planning Area	**U.S. 101**: Extends east–west through the northern portion of the planning area, primarily traversing the cities of Agoura Hills and Calabasas
Los Angeles Basin and San Fernando Valley, San Gabriel Valley, Santa Monica Mountains	**U.S. 101:** Extends east–west across the San Fernando Planning Area **I-5**: Extends generally northwest–southeast across the basin

Table 4.16-1
Summary of Key Freeways and Highways in the Project Area

Planning Area	Key Freeways and Highways
(Includes the following Planning Areas: San Fernando Valley, Westside, Metro, South Bay, West San Gabriel Valley, East San Gabriel Valley, and Gateway)	**I-10**: Extends generally east—west from the Westside Planning Area to the Metro Planning Area **I-105**: Extends generally east—west across the South Bay, Metro, and Gateway Planning Areas **I-110**: Extends generally north—south across the Metro and South Bay Planning Areas **I-210**: Extends generally east—west along the foothills of the San Gabriel Mountains and traverses several unincorporated foothill communities in the San Fernando, West San Gabriel, and East San Gabriel Planning Areas **I-405**: Extends generally north—south through the western portion of the Los Angeles Basin, crossing several small unincorporated urban communities **I-605**: Extends generally north—south across the eastern end of the Los Angeles Basin **I-710**: Extends generally north—south through the Metro and Gateway Planning Areas **SR-118, SR-170, SR-134, SR-90**: Extend through the western portions of the Los Angeles Basin **SR-2, SR-110, SR-60, SR-91, SR-47, SR-103, SR-22, SR-210, SR-71, and SR-57**: Extend through the east portions of the Los Angeles Basin

Source: County of Los Angeles ~~2014~~2015
Notes: I = Interstate; SR = State Route; U.S. = United States Highway.

Table 4.16-2
Los Angeles County Highway Plan Roadway Classification System

Classification	Description
Major Highway	This classification includes urban highways that are of countywide significance and are, or are projected to be, the most highly traveled routes. These roads generally require four or more lanes of moving traffic; channelized medians; and, to the extent possible, access control and limits on intersecting streets. This width may vary to meet extraordinary circumstances. Also classified as major highways are key connectors, non-urban access ways, and recreational roads. The bulk of these routes are not planned for urban-type improvement. However, the full major highway right-of-way width of 100 feet or more is generally required to maintain adequate safety and vehicular capacity.

Table 4.16-2
Los Angeles County Highway Plan Roadway Classification System

Classification	Description
Secondary Highway	Secondary highways include urban routes that serve or are planned to serve an areawide or countywide function, but are less heavily traveled than major highways. In a few cases, routes that carry major-highway levels of traffic are classified as secondary highways because it is impractical to widen them to major highway standards. In addition to the countywide function, secondary highways frequently act as oversized collector roads that feed the countywide system. In this capacity, the routes serve to remove heavy traffic from local streets, especially in residential areas. In urban areas, secondary highways typically have four moving lanes of traffic on 80-foot-wide rights-of-way. However, configuration and width may vary with traffic demand and conditions. Access control, especially to residential properties and minor streets, is desirable along these roads.
Limited Secondary Highway	Limited secondary highways are located in remote foothill, mountain, and canyon areas. Their primary function is to provide access to low-density settlements, ranches, and recreational areas. The standard improvement for limited secondary highways is two traffic lanes on 64-foot-wide rights-of-way. Typically, such improvements consist of 28- to 30-foot-wide pavement with graded shoulders. Left-turn pockets and passing lanes may be provided when required for traffic safety. The right-of-way may be increased to 80 feet wide for additional improvements where traffic or drainage conditions warrant. A uniform building setback needs to be established 40 feet from the centerline of all limited secondary highways to preserve proper sight distances and to help maintain a rural appearance adjacent to the roadway. This setback is in addition to any yard requirement contained in the Zoning Code.
Parkway	The parkway classification is applied to urban and non-urban routes having park-like features either within or adjacent to the roadway.
Expressway	The expressway classification is primarily for through-traffic with full or partial control of access. Expressways can accommodate six to 10 traffic lanes. The width of the right-of-way varies as necessary to incorporate these features, but is not less than 80 feet. Roadway improvements vary depending on the composition and volume of traffic.

Source: County of Los Angeles ~~2014~~2015.

Table 4.16-3
Los Angeles County Airports

Airport	Planning Area	City or Unincorporated Community	Owner
Antelope Valley			
General William J. Fox Airfield	Antelope Valley Planning Area	City of Lancaster	Los Angeles County
Palmdale Regional Airport	Antelope Valley Planning Area	City of Palmdale	City of Los Angeles
Air Force Plant 42	Antelope Valley Planning Area	City of Palmdale	U.S. Air Force
Coastal Islands			
Catalina Island Airport	Coastal Islands Planning Area	Unincorporated Santa Catalina Island	Private
Frederick Sherman Field	Coastal Islands Planning Area	Unincorporated San Clemente Island	U.S. Navy
Unincorporated Urban Islands			
Agua Dulce Airport	Santa Clarita Valley Planning Area	Unincorporated community of Agua Dulce	Private

Table 4.16-3
Los Angeles County Airports

Airport	Planning Area	City or Unincorporated Community	Owner
Burbank (Bob Hope) Airport	San Fernando Valley Planning Area	City of Burbank	Burbank-Glendale-Pasadena Airport Authority
Van Nuys Airport	San Fernando Valley Planning Area	City of Los Angeles	City of Los Angeles
Whiteman Airport	San Fernando Valley Planning Area	City of Los Angeles	Los Angeles County
Los Angeles International Airport (LAX)	Westside Planning Area	City of Los Angeles	City of Los Angeles
Santa Monica Municipal Airport	Westside Planning Area	City of Santa Monica	City of Santa Monica
Jack Northrup Field Airport (Hawthorne Municipal Airport)	South Bay Planning Area	City of Hawthorne	City of Hawthorne
Torrance Municipal Airport-Zamperini Field	South Bay Planning Area	City of Torrance	City of Torrance
Long Beach Municipal Airport (Daugherty Field Airport)	Gateway Planning Area	City of Long Beach	City of Long Beach
Compton/Woodley Airport	Metro Planning Area	City of Compton	Los Angeles County
El Monte Airport	West San Gabriel Valley Planning Area	City of El Monte	Los Angeles County
Brackett Field Airport	East San Gabriel Valley Planning Area	City of La Verne	Los Angeles County

Source: County of Los Angeles ~~2014~~2015.

Table 4.16-4
Traffic Conditions throughout Los Angeles County

AM Peak Period	PM Peak Period	Daily
Vehicle Miles of Travel		
46,321,000	74,635,000	224,312,000
Vehicle Hours of Travel		
1,627,000	3,181,000	7,428,000
Vehicle Hours of Delay		
554,000	1,387,000	2,204,000
Percent of Travel in Delay		
34%	44%	30%

Source: SCAG 2012.

Table 4.16-5
Level of Service

LOS	Flow	Description
A	Free flow	Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at intersections is minimal. The travel speed exceeds 85% of the base free-flow speed.
B	Stable flow	The ability to maneuver within the traffic stream is only slightly restricted, and control delay at intersections is not significant. The travel speed is between 67% and 85% of the base free-flow speed.
C	Stable flow	The ability to maneuver and change lanes at mid-segment locations may be more restricted than at LOS B. Longer queues at intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed.
D	Approaching unstable flow	Small increases in flow may cause substantial increases in delay and decreases in travel speed. The travel speed is between 40% and 50% of the base free-flow speed.
E	Unstable flow	Significant delay is commonly experienced. The travel speed is between 30% and 40% of the base free-flow speed.
F	Forced flow	Congestion is likely occurring at intersections, as indicated by high delay and extensive queuing. The travel speed is 30% or less of the base free-flow speed.

Source: County of Los Angeles ~~2014~~2015.
Note: LOS = level of service.

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4.17 UTILITIES AND SERVICE SYSTEMS

This section describes the existing utilities and service systems setting of the proposed project area, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. Dudek reviewed and considered the ~~2014~~ 2015 Draft General Plan Update and Draft and Final Environmental Impact Report (EIR); however, since the 2015 ~~2014~~ Draft General Plan Update and associated~~Draft~~ EIR have not been approved and adopted by the Los Angeles County (County) Board of Supervisors, certain background information discussed herein is used for informational purposes only.[1]

4.17.1 Existing Conditions

Utilities and services within the unincorporated areas of the County are provided by a number of agencies and organizations. Available utilities and service systems include wastewater conveyance and treatment, storm drain systems, potable water, and landfills. The providers of each of these services are summarized below.

Wastewater

Conveyance

Sanitary sewers convey sewage from lavatories and other plumbing fixtures in buildings and factories to wastewater treatment facilities where the effluent is treated before being discharged to the ocean or river. The County Sanitation District, the Consolidated Sewer Maintenance District, and municipal septic or wastewater systems serve the wastewater conveyance needs of the unincorporated areas of the County. The County Sanitation District operates facilities that collect, treat, recycle, and dispose of sewage and industrial wastes. The Consolidated Sewer Maintenance District is responsible for local sewers that connect to the County Sanitation District's trunk lines.

Treatment

Wastewater treatment for the unincorporated areas of the County is provided by the following agencies: the County Sanitation District, the City of Los Angeles Bureau of Sanitation, the Las Virgenes Municipal Water District, and the County Department of Public Works. Collectively, these agencies operate a total of 13 wastewater treatment plants throughout the County.

[1] In March 2015, the County Board of Supervisors voted to approve the General Plan Update. However, the General Plan Update is not yet officially adopted. The existing adopted General Plan will remain in effect until the General Plan Update is adopted. It is reasonably foreseeable that the General Plan Update will go into effect in July 2015.

Storm Drain System

In the County, the stormwater drainage systems are separate from the sanitary sewer systems. The National Pollutant Discharge Elimination System (NPDES) establishes framework for regulating municipal, industrial, and construction stormwater discharges into surface water bodies, including stormwater channels. Discharges in each of the County's geographical regions flow toward a variety of natural and engineered drainage channels, depending on the watershed in which the region is located. Principal drainages throughout the County are as follows:

- ***Los Angeles River:*** A drainage channel that flows from the San Fernando Planning Area to Long Beach, which is in the Gateway Planning Area
- ***San Gabriel River:*** A drainage channel that extends from the San Gabriel Mountains through the West and East San Gabriel Valley Planning Areas and the Gateway Planning Area
- ***Rio Hondo:*** A drainage channel in the Los Angeles Basin that connects the San Gabriel River to the Los Angeles River
- ***Dominguez Channel:*** The main drainage within the Dominguez Watershed, which approximately overlaps the South Bay and Metro Planning Areas
- ***Santa Clara River:*** The main drainage channel in the Santa Clarita Valley Planning Area
- ***Antelope Valley Watershed:*** The majority of storm drains within the Antelope Valley discharge to vacant land

Potable Water

The County provides potable water for unincorporated areas through a water management system that consists of numerous water providers, water control boards, and other agencies. A combination of local and imported water supplies is delivered through a system of aqueducts, reservoirs, and groundwater basins.

Water Sources

Approximately 33% of the water supply in unincorporated areas comes from local sources, such as surface water from mountain runoff, groundwater, and recycled water. Water is also imported into the County from the Colorado River, the Bay Delta in Northern California via the State Water Project, and the Owens Valley via the Los Angeles Aqueduct.

Antelope Valley Groundwater Cases

The Antelope Valley Groundwater Basin is comprised of the upper principal aquifer that yields most of the current groundwater supplies, and the lesser used lower deep aquifer. Groundwater

levels in some areas have declined significantly since the early 1900s due to over-extraction. Groundwater quality is excellent within most of the principal aquifer but degrades toward the northern portion of the dry lakes areas.

In approximately 1999, agricultural interests in the Antelope Valley initiated litigation in state court seeking to determine certain rights to groundwater. In approximately 2005, certain public water supplies, including Los Angeles County Waterworks District (LACWD) 40, filed a cross-action seeking an adjudication of groundwater rights within the basin. Other agencies and parties have filed separate actions concerning groundwater rights in the Antelope Valley Area of Adjudication (AVAA). The Court has coordinated and consolidated the actions in one action in Los Angeles Superior Court. Four phases of the trial have been completed in the adjudication during which the court has defined the adjudication area boundary (i.e., the AVAA) and determined that the total safe yield of the AVAA is 110,000 acre-feet per year (AFY), that the AVAA has been in a state of overdraft for over 50 years, and the current pumping by the parties exceeds the safe yield of the AVAA. The action will result in a judgment (by trial and/or stipulation) containing a final allocation of groundwater rights and a long-term groundwater management system for the AVAA. It is unknown how long it will take to complete the adjudication litigation.

As stated in the Antelope Valley Integrated Regional Water Management Plan 2013 Update, "Since long-term recharge is expected to be stable, it is anticipated that groundwater pumping, and hence supply, will be reliable even in short-term and multiple year droughts." Thus groundwater is considered a reliable supply for the Antelope Valley Region. However, the pending adjudication will affect how much groundwater can physically be pumped in the Antelope Valley Region in the future to insure that AVAA groundwater is not overdrafted. It is important to note that the supplemental yield from imported water return flows depends upon demand and may fluctuate with changes in demand. The imported water return flow estimates are meant to indicate a sense of the impact of return flows to the AVAA groundwater basin.

The Willis Class/Non-Pumpers consists of owners of properties within the AVAA who have never pumped water on those properties. Based on the July 13, 2010 Willis Class Stipulation of Settlement (Case No. BC 364553), the settling parties agree that the settling defendants collectively have the right to product up to 15% of the basin's federally adjusted native safe yield free of any replacement assessment, and the Willis Class members have an overlying right to a correlative share of 85% of the federally adjusted native safe yield for reasonable and beneficial uses on their overlying land free of any replacement assessment. The Wood/Small Pumper Class consists of owners of properties within the AVAA who have pumped relatively modest amounts of water (pumping less than 25 acre-feet per year on property during any year from 1946 to the present) on those properties. During the Court's July 18, 2011 Statement of Decision Phase Three Trial (Case No. BC391869), the Court set the total basin safety yield at 110,000 acre-feet per year.

The Wood Class Member household is entitled to the reasonable and beneficial domestic use of up to 3 acre-feet per year on the household's overlying land. However, as previously indicated, the adjudication is not complete and a judgment has not been entered so the above information could change and the parties will be directed to the final judgment in the adjudication for the actual water availability.

Water Suppliers

Table 4.17-1, Water Suppliers, lists the water suppliers that serve each of the geographical categories of the unincorporated areas of the County.

Landfills

The unincorporated areas of the County, with the exception of the Coastal Islands, are serviced by nine landfills. San Clemente Island and Santa Catalina Island each have their own landfill. The locations of each of these landfills relative to the County-designated Planning Areas are characterized in Table 4.17-2, Landfills. In addition to the operational landfills listed in Table 4.17-2, the Mesquite Landfill is a regional landfill located in Imperial County that is owned and will be operated by County Sanitation District No. 2. This landfill is not yet operational (County of Los Angeles 2013, Appendix E-1).

Other Utilities

Electricity

Southern California Edison supplies electricity to the County. Total electricity demands in Southern California Edison's service area were 82,069 gigawatt-hours in 2012. By 2024, electricity demands in the service area are projected to increase to 96,516 gigawatt-hours (County of Los Angeles ~~2014~~2015).

Natural Gas

The Southern California Gas Company supplies natural gas to the majority of the County. From 2015 to 2030, total natural gas supplies are anticipated to remain at 3,875 million cubic feet per day (County of Los Angeles ~~2014~~2015).

4.17.2 Relevant Plans, Policies, and Ordinances

Federal

Clean Water Act

In 1972, the federal Water Pollution Control Act (Clean Water Act) was amended to prohibit the discharge of pollutants to waters of the United States unless the discharge is in compliance with an NPDES permit. The Clean Water Act focused on tracking point sources, primarily from wastewater treatment facilities and industrial waste dischargers, and required implementation of control measures to minimize pollutant discharges. The Clean Water Act was amended again in 1987, adding Section 402(p), to provide a framework for regulating municipal and industrial stormwater discharges. In November 1990, the U.S. Environmental Protection Agency published final regulations that establish application requirements for specific categories of industries, including construction projects that encompass greater than or equal to 5 acres of land. The Phase II Rule became final in December 1999, expanding regulated construction sites to those greater than or equal to 1 acre. The regulations require that stormwater and non-stormwater runoff associated with construction activity that discharges either directly to surface waters or indirectly through Municipal Separate Storm Sewer Systems (MS4s), must be regulated by an NPDES permit.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (Code Fed. Regs., Title 40, § 268, Subpart D, contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs that include federal landfill criteria. The federal regulations address the location, operation, design, and closure of landfills, as well as groundwater monitoring requirements.

State

Urban Water Management Planning Act

The Urban Water Management Planning Act (Cal. Water Code, Div. 6, Part 2.6, § 10610 et seq.) was enacted in 1983 and has been amended multiple times. The act applies to urban water suppliers that that provide water for municipal purposes to over 3,000 customers or suppliers that provide more than 3,000 AFY. The act requires these specified water suppliers to prepare and adopt an urban water management plan (UWMP) and to update this plan at least once every 5 years. The UWMP must identify short-term and long-term water demand management measures to meet growing water demands during normal, dry, and multiple dry years.

Senate Bill 610 and Senate Bill 221

Senate Bill (SB) 610 and SB 221 became effective January 1, 2002 and amended Sections 10910–10915 of the California Water Code. These bills require counties and cities to consider the availability of adequate water supplies for certain proposed development projects. The statutes require cities and counties to obtain written verification that the local water supplier has sufficient supply for proposed projects that fall subject to SB 610 or to SB 221.

Projects that are subject to SB 610 include residential, commercial, and industrial projects of certain sizes, as well as any that would demand water equal to or greater than a 500-dwelling-unit project. Projects subject to SB 221 are residential subdivisions of more than 500 dwelling units. Additionally, under SB 221, a proposed project that would increase the number of existing connections by 10% or more for a public water system with fewer than 5,000 existing connections also requires a water supply assessment.

The UWMPs required by Water Code Section 10610 et seq. are the foundational documents for compliance with both SB 610 and SB 221, as UWMPs can be used to meet the standards of both statutes.

California State Water Resources Control Board

In the State of California, the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) are responsible for implementing the Clean Water Act and the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The Porter-Cologne Act authorizes the SWRCB to implement programs to control polluted discharges into state waters. In compliance with the Porter-Cologne Act, the nine RWQCBs establish the wastewater concentrations of a number of specific hazardous substances in treated wastewater discharge.

California State Recycled Water Policy

In February 2009, the SWRCB adopted the State Water Board Recycled Water Policy (effective May 14, 2009, and amended January 22, 2013). The purpose of the Policy is to increase the use of recycled water from municipal wastewater sources, in a manner that implements state and federal water quality laws, as a means towards achieving sustainable local water supplies. The Recycled Water Policy established goals and mandates for recycled water use, including a mandate to increase the use of recycled water from the amount used in 2009 by 200,000 acre-feet per year by 2020 and by 500,000 acre-feet per year by 2030. The SWRCB supports recycled water as a safe alternative to potable water for such approved uses as dust control, road maintenance, construction, and landscape irrigation.

California Green Building Standards Code

Section 5.408 of the 2013 California Green Building Standards Code, which is Part 11 of Title 24 of the California Code of Regulations, requires that at least 50% of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989, also known as Assembly Bill (AB) 939, requires that each city or county prepare a new integrated waste management plan. AB 939 further required each city to prepare a Source Reduction and Recycling Element by July 1, 1991. Each Source Reduction and Recycling Element includes a plan for achieving a solid waste reduction goal of 25% by January 1, 1995, and 50% by January 1, 2000. A number of changes to the municipal solid waste diversion requirements under the Integrated Waste Management Act were adopted, including a revision to the statutory requirement for 50% diversion of solid waste. In 2011, AB 341 was passed, requiring the California Department of Resources Recycling and Recovery (CalRecycle) to require local agencies to include strategies to enable the diversion of 75% of all solid waste by 2020.

California Code of Regulations, Titles 14 and 27

Title 14 (Natural Resources, Division 7) and Title 27 (Environmental Protection, Division 2 (Solid Waste)) of the California Code of Regulations govern the handling and disposal of solid waste and operation of landfills, transfer stations, and recycling facilities.

California Energy Commission

The California Energy Commission forecasts statewide electricity needs; licenses power plants; promotes energy conservation and efficiency measures; develops renewable energy resources and alternative energy technologies; promotes research, development, and demonstration; and plans for state energy emergencies.

Energy Efficiency Standards for Residential and Nonresidential Buildings

Title 24, Part 6, of the California Code of Regulations contains the California Energy Commission's Energy Efficiency Standards for Residential and Nonresidential Buildings. Title 24 has been updated periodically since its adoption in 1978 to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

Assembly Bill 1980

The California Public Utilities Commission regulates investor-owned electric power and natural gas utility companies in the state. AB 1980, adopted in 1996, deregulated the power generation industry, allowing customers to purchase electricity on the open market. Under deregulation, the production and distribution of power that was under the control of inventory-owned utilities was decoupled. All new construction in the state is subject to the energy conservation standards in Title 24, Part 6, Article 2, of the California Code of Regulations. The standards establish maximum energy consumption levels for heating and cooling in new buildings. Alternative energy technologies are not required but are encouraged to be included as a development condition. Incentives such as state and federal tax credits are in place to encourage use of renewable technologies in new development.

Local

Water Quality Control Plans (Basin Plans)

The Porter-Cologne Act, Section 13000, directs each RWQCB to develop a water quality control plan (Basin Plan) for all areas within its region. The Basin Plan is the basis for each RWQCB's regulatory programs. The unincorporated County is located within the purview of the Los Angeles RWQCB (Region 4), the Lahontan RWQCB (Region 5), and the Central Valley RWQCB (Region 6), and must comply with applicable elements of the applicable Basin Plan. The Basin Plan for Region 4 was adopted in 1994 and for Region 6 in 1995. These Basin Plans give direction on the beneficial uses of state waters, describe the water quality that must be maintained, and provide programs necessary to achieve the standards established in the Basin Plans.

Stormwater Pollution Prevention Plans

The SWRCB administers the NPDES permit program regulating stormwater from construction activities for projects with a disturbed area of 1 acre or more. In 2012, the SWRCB issued a statewide general NPDES permit for stormwater discharges from construction sites (Order No. 2012-0006-DWQ; NPDES CAS000002). Under this Statewide General Construction Activity permit (Construction General Permit), discharges of stormwater from construction sites with a disturbed area of 1 acre or more are required to either obtain individual NPDES permits for stormwater discharges or to be covered by the Construction General Permit. In order to obtain coverage under the Construction General Permit, a Notice of Intent must be filed with the SWRCB, and a stormwater pollution prevention plan (SWPPP) must be developed and implemented. The SWPPP must be prepared prior to ground disturbance and must be implemented during construction. The SWPPP must also list best management practices (BMPs) to be implemented on the construction site to protect stormwater runoff and must contain a

visual monitoring program, a chemical monitoring program, and a monitoring plan if the site discharges directly to a water body listed on the state's list of impaired waters.

Urban Water Management Plans

In accordance with the California Urban Water Management Planning Act of 1983 described above, every urban water supplier that annually serves 3,000 or more customers or provides more than 3,000 AFY of water, must prepare and adopt a UWMP. UWMPs contain a description and evaluation of water supplies, reclamation programs, and conservation activities. Based on land use plans provided by local governments, population projections, or other inputs, the UWMPs calculate the projected water demand for the district and compare this demand against current and anticipated water supplies. These UWMPs, which are updated every 5 years, are provided to local governments to help inform decisions on development proposals.

Integrated Regional Water Management Plans

UWMPs serve as building blocks for integrated regional water management plans (IRWMPs). IRWMPs define a clear vision and strategy for the sustainable management of water resources within a specific region delineated by one or more watersheds. IRWMPs generally contain an assessment of current and future water demand, water supply, water quality, and environmental needs. They address the challenges for delivering a stable and clean supply of water for the public, addressing stormwater and urban runoff water quality, providing flood protection, meeting water infrastructure needs, maximizing the use of reclaimed water, enhancing water conservation, and promoting environmental stewardship.

During the planning process, all stakeholders, including water distributors and purveyors, regional waterworks and sanitation districts, local public works departments, environmental organizations, nonprofits, and other vested interests work together to develop common goals, objectives, and strategies. Since water-related issues are addressed on a regional, watershed basis, these plans are instrumental in building consensus among the various stakeholders in the development and prioritization of an action plan that is complementary and leverages inter-jurisdictional cooperation, resources, and available funding. There are four IRWMP regions in the County that affect the project area:

1. Antelope Valley IRWMP
2. Upper Santa Clara River IRWMP
3. Greater Los Angeles County IRWMP
4. Los Angeles Gateway Region IRWMP

Los Angeles County Code

Title 12, Chapter 12.84– Low Impact Development Ordinance

This ordinance is designed to promote sustainability and improve the County's watersheds by preserving drainage paths and natural water supplies in order to "retain, detain, store, change the timing of, or filter stormwater or runoff."

Title 20, Chapter 20.87 – Construction and Demolition Debris Recycling and Reuse Ordinance

The County Board of Supervisors adopted the Construction and Demolition Debris Recycling and Reuse Ordinance on January 4, 2005. The ordinance added Chapter 20.87 to the Los Angeles (L.A.) County Code, which requires projects in the unincorporated areas to recycle or reuse 50% by weight of all construction and demolition debris removed from a site. Any work that consists solely of one single-family or two-family residential structure and associated accessory structures, except for work consisting of demolition only, does not apply. Its purpose is to increase the diversion of construction and demolition debris from disposal facilities and will assist the County in meeting the state's waste reduction mandates. The code also requires submission of a recycling and reuse plan and associated annual reporting to demonstrate compliance with the plan.

County Integrated Waste Management Plan

In compliance with AB 939, the County has implemented an Integrated Waste Management Plan that contains the county's and the cities' solid waste reduction planning documents plus an Integrated Waste Management Summary Plan (Summary Plan) and a County-Wide Siting Element (CSE). The County's Department of Public Works is responsible for preparing and administering the Summary Plan and the CSE. The existing CSE, approved by CalRecycle on June 24, 1998, identifies how the County and cities would meet their long-term disposal capacity needs to safely handle solid waste generated that cannot be reduced, recycled, or composted. The County Department of Public Works, in consultation with the Integrated Waste Management Task Force, is currently revising the CSE. The final draft CSE and environmental document is scheduled to be submitted to CalRecycle by 2016.

The County Department of Public Works also prepares an annual report to summarize the changes that have taken place since the approval of the existing Summary Plan and the existing CSE. The annual reports includes assessments of the County's disposal capacity needs, provides detailed updates on the remaining permitted in-County disposal capacity, and includes the County's strategy for maintaining adequate disposal capacity through 2027.

Title 20, Chapter 20.89 – Solid Waste Generation Service Charge

An annual solid waste generation service charge is levied by the County on each parcel of real property within the unincorporated County. The fees are furnished in connection with the preparation, adoption, and administration of the County Household Hazardous Waste Element and the Reduction and Recycling Element of the County Integrated Waste Management Plan.

County Building Code (Title 26)

Effective January 1, 2014, the 2014 County Building Code (Title 26) is based on the 2013 California Building Code, Title 24, California Code of Regulations, and the 2012 International Building Code.

4.17.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to utilities and service systems are based on the Los Angeles County Department of Regional Planning Environmental Checklist Form (Initial Study). To determine whether the proposed project would result in a significant impact, the project was analyzed to establish whether it would:

A. Exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards.

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.

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.

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.

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.

F. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

G. Comply with federal, state, and local statutes and regulations related to solid waste.

4.17.4 Impacts Analysis

Criterion A: Would the project exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or California Environmental Quality Act (CEQA) review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

As indicated in Section 4.17.2, the unincorporated County is within the purview of the Los Angeles RWQCB, the Lahontan RWQCB, and the Central Valley RWQCB. Each RWQCB prepares and maintains a Basin Plan that identifies water quality objectives to protect all beneficial uses of the waters of that region. The Basin Plans achieve the identified water quality objectives through implementation of Waste Discharge Requirements (WDRs). 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 NPDES program; permits are issued by the appropriate RWQCB and may set discharge limitations or other discharge provisions. Wastewater generated from small-scale solar energy systems is expected to be minimal to none. There would likely be no need for a wastewater treatment provider to serve these projects and no need to expand wastewater treatment systems off the site. However, if any project developed pursuant to the proposed project would connect to a municipal wastewater system, it 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, future small-scale solar energy systems developed pursuant to the proposed project that connect to a municipal wastewater treatment system would not exceed wastewater treatment requirements.

Most small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not propose any septic tanks or alternative wastewater disposal systems since these are considered accessory uses and no wastewater would be generated. If septic systems are proposed, 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 California WDRs (Cal. Code Regs., Title 23) and WDRs issued by the local RWQCB. Such projects would have to demonstrate compliance with these requirements in order to receive construction permits. Therefore, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not exceed any wastewater treatment requirements and impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary meteorological (MET) towers would require discretionary review permits and therefore would be evaluated under CEQA at a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Similar to small-scale solar energy systems, small-scale wind energy systems and temporary MET towers are not anticipated to generate wastewater. However, any future project developed pursuant to the proposed project 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, future small-scale wind energy systems and temporary MET towers developed pursuant to the proposed project that connect to a municipal wastewater treatment system would not exceed wastewater treatment requirements.

Although it is unlikely, if septic systems were proposed, 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 California WDRs and WDRs issued by the local RWQCB. Such projects would have to demonstrate compliance with these requirements in order to receive construction permits. Therefore, small-scale wind energy systems and

temporary MET towers would not exceed any wastewater treatment requirements and impacts would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Wastewater generated from utility-scale ground-mounted renewable energy facilities is expected to be minimal. Operations and maintenance buildings are associated with utility-scale ground-mounted renewable energy facilities when needed to house workers and maintenance staff on site. Because utility-scale ground-mounted facilities are often remotely located, operations and maintenance buildings would be serviced by septic systems. Project sites within 200 feet of a public sewer would be required to connect to the sewer. Due to the minimal number of workers (typically between 0 and 10 full-time staff employees) generally required for utility-scale ground-mounted facilities, wastewater production would be minor if any, and would not lead to a substantial increase in wastewater production in the County. Additionally, as noted above, any future project developed pursuant to the proposed project that would connect to a municipal wastewater system would need to comply with all applicable wastewater treatment standards maintained by the RWQCB as part of obtaining the applicable WDR or NPDES permit. If septic systems are proposed, 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 California WDRs and WDRs issued by the local RWQCB. Such projects would have to demonstrate compliance with these requirements in order to receive construction permits. Therefore, utility-scale ground-mounted renewable energy facilities would not exceed any wastewater treatment requirements, and impacts would be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would have effects similar to those of utility-scale structure-mounted solar energy facilities. These systems would not require operations and maintenance buildings since they would be developed on top of existing buildings and other structures; therefore, they would not generate wastewater. Nonetheless, any future project developed pursuant to the proposed project that would connect to a municipal wastewater system would need to comply with all applicable wastewater treatment standards maintained by the RWQCB as part of obtaining the applicable WDR or NPDES permit. If septic systems are proposed, 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 California WDRs and WDRs issued by the local RWQCB. Such projects would have to demonstrate compliance with these requirements in order to receive construction permits. Therefore, utility-scale structure-mounted wind energy facilities would not exceed any wastewater treatment requirements and impacts would be **less than significant**.

Criterion B: ***Would the project 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?***

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

As described under Criterion A, future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities are not anticipated to generate wastewater or result in capacity issues related to wastewater. These systems and facilities would not in and of themselves result in the construction of new wastewater treatment facilities. Impacts related to wastewater capacity issues or construction or expansion of wastewater treatment facilities that would cause significant environmental effects would be **less than significant**.

Activities associated with operating small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would involve periodic washing of solar modules to eliminate dust and to maintain optimal performance of the systems. The amount of water consumed during operation of photovoltaic (PV) solar energy systems and facilities is minimal (NREL 2011; UCS 2011). Although rainstorms and wind are generally sufficient for removal of dust and debris from PV panels, homeowners and business owners with structure-mounted systems may opt to hose off or sponge-clean their PV panels once or twice a year, which is the typical manufacturer's recommendation. Such activities would be akin to hosing off a paved area or a lawn. This water would run off the equipment and would either be absorbed into the stormwater drainage system

or would soak into the ground, depending on whether the system or the structure on which the system is mounted is underlain by a permeable or an impermeable surface. Small-scale ground-mounted solar energy structures may require water for dust control during site preparation, if required, and water used to periodically clean the solar energy equipment during operation, if necessary (see the preceding discussion regarding PV panel maintenance). Water used on site for panel washing and/or dust control would evaporate in the air or on the panel surface, would be infiltrated into the ground, or would enter the existing storm drain system. The proposed project may allow ground-mounted solar energy facilities of up to 25% of the lot or parcel of land, or 2.5 acres, whichever is less. These types of facilities may require substantial amounts of water for dust control purposes.

Therefore, some future small-scale solar energy systems may require water service from a water district. Before a future small-scale solar energy system can connect to a water district system, approval must be obtained, and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. Because small-scale solar energy systems would typically not require the construction of new water or wastewater treatment facilities or the expansion of existing facilities and because approval from a water district would be required prior to obtaining water service, impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA at a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

As described under Criterion A, future small-scale wind energy systems are not anticipated to generate wastewater or result in capacity issues related to wastewater. These systems are not anticipated to result in the construction of new wastewater treatment facilities. Impacts related to wastewater capacity issues or construction or expansion of wastewater treatment facilities that would cause significant environmental effects would be **less than significant**.

The turbines of the wind energy systems would naturally remove some of the dust and debris on the systems through the circular rotation of the rotor blades. Additionally, rainstorms and wind are generally sufficient for removal of dust and debris from small wind energy systems and temporary MET towers. Homeowners and business owners may opt to hose off or sponge-clean the small wind energy systems and/or temporary MET towers a few times per year. Such

activities would be akin to hosing off a paved area or lawn. Some small-scale wind turbines may use small amounts of water for cleaning equipment such as rotor blades on site. The purpose of blade cleaning is to eliminate dust and insect buildup, which otherwise deforms the shape of the airfoil and degrades performance. Water may also be used for dust control purposes if any ground disturbance, including grading or clearing activities, is required. However, the ~~proposed project would allow only up to two tower-mounted wind energy systems per 5 acres of land. The~~ ground disturbance and clearing for these types of projects is not anticipated to be substantial, due to the capacity limit of 50 kilowatts and the requirement for such facilities to provide primarily for on-site energy use.

Some future small-scale wind energy systems and temporary MET towers may require water service from a water district. Before a future small-scale wind energy system can connect to a water district system, approval must be obtained, and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. Additionally, these future systems would be subject to the Minor CUP discretionary review permit and further CEQA review. Because small-scale wind energy systems and temporary MET towers would not require substantial amounts of water, and because any water service provided by a water district would require approval and would be evaluated under CEQA as part of the Minor CUP discretionary review process, impacts would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

As described under Criterion A, future utility-scale ground-mounted renewable energy facilities would result in minimal amounts of wastewater. Wastewater production during operation, if any, would primarily result from the operations and maintenance buildings. Septic tanks, evaporation ponds, and/or connections to a wastewater treatment provider required for the operations and maintenance buildings would be evaluated for potential environmental impacts as part of the County's discretionary review process and would be subject to applicable WDR or NPDES permits. Additionally, as part of the County's CUP discretionary review process, all future utility-scale ground-mounted facilities would be evaluated under CEQA and would be required to implement measures to minimize impacts to wastewater, as necessary. Therefore, impacts related to wastewater capacity issues or construction or expansion of wastewater treatment facilities that would cause significant environmental effects would be **less than significant**.

During construction of utility-scale ground-mounted renewable energy facilities, water usage would primarily result from fugitive dust control measures. Operational water use would result from fugitive dust control, periodically washing the solar or wind equipment, and establishing and maintaining landscaping. For a typical utility-scale ground-mounted renewable energy facility, water for these uses is often obtained from on-site wells or obtained from a water

provider or district and/or delivered to the site by truck. A substantial amount of water usage for dust control may be required, depending on the duration of the construction period and the amount of ground disturbance and grading required. Water usage would be evaluated for impacts to water supply and other associated environmental impacts at the project level as part of the County's discretionary review process. The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy projects to be evaluated under CEQA and would require implementation of measures to minimize impacts to utilities, as necessary. Additionally, before a future utility-scale ground-mounted renewable energy facility can connect to a water district system, approval must be obtained, and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. Therefore, impacts would be **less than significant**.

Utility-Scale Structure-Mounted Wind Energy Facilities

As described under Criterion A, future utility-scale structure-mounted wind energy facilities would result in minimal amounts of wastewater. These facilities would not require operations and maintenance buildings since they would be developed on top of existing buildings and other structures; therefore, they would not generate wastewater. Nonetheless, these facilities would be evaluated for potential environmental impacts as part of the County's discretionary review process and would be subject to applicable WDR or NPDES permits. Therefore, impacts related to wastewater capacity issues or construction or expansion of wastewater treatment facilities that would cause significant environmental effects would be **less than significant**.

Utility-scale structure-mounted wind energy facilities would have substantially less water demand as compared to utility-scale ground-mounted wind energy facilities. Water usage for fugitive dust control would not likely be required because these facilities would result in minimal ground disturbance, if any. By definition in the proposed Zoning Code amendments, these facilities include all related equipment and accessory structures. These include but are not limited to wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures. Although these facilities would be permitted in most zones under the proposed project, they would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure, such as substations and transmission lines, to support such a facility. These facilities may require upgrades to existing substations or transmission lines. Upgrades to substations may be required if there is an increase in load, but these upgrades would mostly likely be contained within the existing fence line. In addition, if a modification to a substation is required, the California Public Utilities Commission has jurisdiction and regulates such upgrades. Upgrades to existing transmission lines may also be required, although these would be contained within the existing right-of-way. Additionally, utility-scale structure-mounted wind energy facilities are typically monitored and operated remotely or by in-house maintenance staff.

Therefore, they do not require operations and maintenance buildings. As a result, these facilities are anticipated to require minimal ground disturbance, if any.

Water required to periodically wash wind turbines would not significantly impact water capacity. For a typical utility-scale structure-mounted renewable energy facility, water for these uses is often obtained from on-site wells or existing infrastructure. Water usage would be evaluated for impacts to water supply and other associated environmental impacts at the project level as part of the County's discretionary review process. The CUP discretionary review process would require all future utility-scale structure-mounted wind energy facilities to be evaluated under CEQA and would require implementation of measures to minimize impacts to utilities, as necessary. Additionally, before a future utility-scale structure-mounted wind energy facility can connect to a water district system, approval must be obtained, and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. Therefore, impacts would be **less than significant**.

Criterion C: ***Would the project 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?***

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Construction and operation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not result in significant amounts of stormwater runoff.

Structure-mounted solar energy systems and facilities would not significantly increase the amount of impermeable surface or runoff from a structure, as they would generally either cover an existing rooftop or be raised above an existing rooftop. Therefore, such systems would not require new or expanded stormwater drainage facilities.

Small-scale ground-mounted solar energy systems would have the potential to result in slightly increased stormwater runoff relative to structure-mounted systems. Grading of a previously vacant and/or undisturbed site during construction could produce increased amounts of runoff due to clearing of vegetation and erosion. However, all projects involving more than 50 cubic yards of excavation would be required to obtain a grading permit and would be required to obtain NPDES permits, to develop a SWPPP under the statewide Construction General Permit, and/or to develop an erosion and sediment control plan (ESCP) in compliance with the L.A. County Code. (Projects with a disturbed area of 1 acre or greater must prepare and implement a SWPPP and an ESCP, whereas projects with a disturbed area of less than 1 acre must only prepare and implement an ESCP.) Operation of a small-scale ground-mounted solar energy system would also have the potential to increase stormwater runoff due to changes in the hydrology of the site. However, any system proposed within the portion of the County that is within the Los Angeles RWQCB, the Lahontan RWQCB, or the Central Valley RWQCB would also be required to be consistent with the MS4 Permit for those regions. In the event that a project were to be associated with the construction of new buildings and/or landform modification or grading, adequacy of stormwater drainage facilities would be evaluated during review of the building or grading permit and expansion required by the County if determined to be necessary. Any stormwater facility expansion would be reviewed for environmental impacts. Therefore, the proposed project would not require any construction of new or expanded facilities that could cause significant environmental effects, and impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA at a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Construction and operation of small-scale wind energy systems and temporary MET towers would not result in significant amounts of stormwater runoff. Structure-mounted wind energy systems would not significantly increase the amount of impermeable surface or runoff from a structure, as they would generally either cover an existing rooftop or be raised above an existing rooftop. Therefore, such systems would not require new or expanded stormwater drainage facilities.

Small-scale ground-mounted wind energy systems and temporary MET towers could have the potential to result in slightly increased stormwater runoff relative to structure-mounted systems. Grading of a previously vacant and/or undisturbed site during construction could produce increased amounts of runoff due to clearing of vegetation and erosion. However, all projects involving more than 50 cubic yards of excavation would be required to obtain a grading permit and would be required to obtain NPDES permits, to develop a SWPPP under the statewide Construction General Permit, and/or to develop an ESCP in compliance with the L.A. County Code. Operation of a small-scale ground-mounted system would also have the potential to increase stormwater runoff due to changes in the hydrology of the site. However, any system proposed within the portion of the County that is within the Los Angeles RWQCB, the Lahontan RWQCB, or the Central Valley RWQCB would also be required to be consistent with the MS4 Permit for those regions. In the event that a project were to be associated with the construction of new buildings and/or landform modification or ground disturbance, adequacy of stormwater drainage facilities would be evaluated during review of the building or grading permit and expansion required by the County if determined to be necessary. Any stormwater facility expansion would be reviewed for environmental impacts.

Additionally, throughout the County, operational impacts would be reduced by compliance with the County's Low Impact Development (LID) standards contained in Title 12 of the L.A. County Code, which contains standards involving infiltration and hydromodification controls. Due to the CEQA review process, the Minor CUP discretionary review process required for all future wind energy systems and temporary MET towers, and because all future projects must adhere to the County's LID standards, future small-scale wind energy systems and temporary MET towers would result in **less than significant** impacts to drainage systems and stormwater drainage facilities.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Utility-scale ground-mounted renewable energy facilities would require ground disturbance, including possible grading, on previously disturbed or undisturbed land. Projects would be required to obtain NPDES permits, to develop a SWPPP under the statewide Construction General Permit, and/or to develop an ESCP in compliance with the L.A. County Code. Preparation and implementation of such plans would likely reduce stormwater runoff from construction sites and would render construction-related impacts less than significant. Operation of utility-scale ground-mounted renewable energy facilities could result in permanent increases in runoff from the site resulting from permanently cleared land. Within areas administered by the Los Angeles RWQCB, the Lahontan RWQCB, or the Central Valley RWQCB, operational impacts would be reduced by MS4 Permit for those regions. Additionally, throughout the County, operational impacts would be reduced by compliance with the County's LID standards contained in Title 12 of the L.A. County Code, which contains standards involving infiltration and hydromodification controls. However, due to the potential

size of utility-scale ground-mounted renewable energy facilities and the variety of potential places within the County to develop such facilities, there is a possibility that a future facility may require additional storm drain infrastructure to facilitate proper site drainage. Any expansions of storm drain facilities associated with future utility-scale ground-mounted renewable energy facilities would be analyzed for environmental impacts under the CUP discretionary review process and associated CEQA process. Therefore, due to the project-based CEQA review required for individual utility-scale ground-mounted renewable energy facilities, the CUP discretionary review process required for all future utility-scale ground-mounted renewable energy facilities, and because all future projects must adhere to the County's LID standards, the proposed project would result in **less than significant** impacts to drainage systems and stormwater drainage facilities.

Utility-Scale Structure-Mounted Wind Energy Facilities

As further described in Criterion B, utility-scale structure-mounted wind energy facilities would require minimal ground disturbance, if any. In addition, through the discretionary review process, these facilities would be required to obtain NPDES permits, to develop a SWPPP under the statewide Construction General Permit, and/or to develop an ESCP in compliance with the L.A. County Code, if deemed necessary. Preparation and implementation of such plans would likely reduce stormwater runoff from construction sites and would render construction-related impacts less than significant. During maintenance, wind energy facilities are typically cleaned with water on an annual basis. Such activities would be akin to hosing off a paved area or a lawn. Any runoff water would enter the existing storm drain system or would infiltrate into the ground for structures surrounded by pervious surfaces. Within areas administered by the Los Angeles RWQCB, the Lahontan RWQCB, and the Central Valley RWQCB, operational impacts would be reduced by MS4 Permit requirements for those regions, if deemed necessary. Additionally, throughout the County, operational impacts would be reduced by compliance with the County's LID standards contained in Title 12 of the L.A. County Code, which contains standards involving infiltration and hydromodification controls. Therefore, due to the project-based CEQA review required for individual utility-scale structure-mounted wind energy facilities, the ~~discretionary review~~CUP process required for all future utility-scale structure-mounted wind energy facilities in R-1 zones, and the Minor CUP process required for all other utility-scale structure-mounted wind energy facilities, and because all future projects must adhere to the County's LID standards, the proposed project would result in **less than significant** impacts to drainage systems and stormwater drainage facilities.

Criterion D: Would the project 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?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Please refer to Criterion B regarding water usage. The proposed project may allow small-scale ground-mounted solar energy systems of up to 2.5 acres in size. These types of systems may require substantial amounts of water for dust control purposes. Small-scale ground-mounted solar energy systems may require water for dust control during construction. Many future small-scale solar energy systems are expected to be small and would thus be associated with minimal need for dust control activities and related water usage. As described in Chapter 3, Project Description, small-scale ground-mounted solar energy systems would not be allowed to cover more than 25% of the lot or parcel of land, or 2.5 acres, whichever is less. In the event that water for dust control activities were to be required (see Section 4.3, Air Quality, and Section 4.6, Geology and Soils, for a discussion of dust control requirements), water for dust control purposes would typically be obtained from a water provider or district but could also be obtained from on-site wells and/or delivered to the site by truck for systems located remotely from a water provider. Some future small-scale solar energy systems may require water service from a water district. Before a future small-scale solar energy system or utility-scale structure-mounted solar energy facility can connect to a water district system, approval must be obtained, and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted.

However, in the event that on-site wells are used to obtain water for dust control activities, future projects may use and potentially affect groundwater supply. Many future ground-mounted systems would likely be mounted on concrete foundations located on previously disturbed land

adjacent to houses or commercial buildings and would not involve water usage for dust control to the extent that groundwater supplies would be depleted. However, as further analyzed in Section 4.9, Hydrology and Water Quality, systems that are larger in size (up to 2.5 acres) and remotely located could involve more substantial groundwater use. These future systems would not be subject to discretionary review permits or any further CEQA review. Additionally, there is an overdraft of groundwater in the Antelope Valley region; therefore, groundwater may not be a reliable source of water for future projects in this area. The project area includes Antelope Valley and the Antelope Valley Groundwater Basin. Therefore, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may result in **potentially significant** impacts to water supply, particularly groundwater resources, as a result of withdrawing water for dust control activities (**Impact UTL-1**).

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA at a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Please refer to Criterion B regarding water usage. As described under Criterion B, future small-scale wind energy systems and temporary MET towers would not result in substantial water usage. ~~No more than two wind energy systems are permitted per 5 gross acres of land. Therefore, g~~Ground disturbance and clearing for these types of projects (and water related to dust control needs) is not anticipated to be substantial due to the capacity limit of 50 kilowatts and the requirement for such facilities to provide primarily for on-site energy use. Water would either be obtained from on-site wells or from a water provider or district and/or delivered to the site by truck. If water is required from a water provider or district, approval would be required, and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. Additionally, these future systems would be subject to the Minor CUP discretionary review permit and further CEQA review. If water is obtained from on-site wells, the discretionary review process may determine a study of groundwater resources is warranted, which would ensure that measures are implemented to reduce groundwater depletion to the greatest extent possible. However, there is an overdraft of groundwater in the Antelope Valley region; therefore, groundwater may not be a reliable source of water for future projects in this area. The project area includes Antelope Valley and the Antelope Valley Groundwater Basin. For these reasons, impacts would be **potentially significant (Impact UTL-2)**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

As characterized under Criterion B, utility-scale ground-mounted renewable energy facilities would likely require water during both construction and operation.

During construction, water would typically be used to suppress fugitive dust during ground disturbance, which may include grading, trenching, and soil compaction, and to apply soil binding agents to help with soil stabilization during construction. Water could also be used to mix concrete, and potable water would be required for construction workers' drinking and restroom use. Water usage during construction for utility-scale ground-mounted renewable energy projects varies greatly, depending on the duration of construction activities and the extent of grading, grubbing, clearing, and landscaping reestablishment that is required.

Operationally, potable water would likely be required for on-site operations and maintenance buildings for cleaning the solar or wind equipment to maintain optimal facility performance and maintenance of landscaping. The amount of water required by a utility-scale ground-mounted renewable energy facility varies based on the size of the facility, the amount of landscape maintenance involved, and the number of on-site workers required. The National Renewable Energy Laboratory has studied water consumed by utility-scale renewable energy facilities per megawatt–hour (MWh). Utility-scale PV solar energy facilities typically use a maximum of 33 gallons per MWh (NREL 2011). Wind turbines generally use a maximum of 1 gallon per MWh (NREL 2011).

The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy projects to be evaluated under CEQA and would require implementation of measures to minimize impacts to water supply, as necessary. However, there is an overdraft of groundwater in the Antelope Valley region; therefore, groundwater may not be a reliable source of water for future projects in this area. The project area includes Antelope Valley and the Antelope Valley Groundwater Basin. Therefore, the proposed project may result in **potentially significant** impacts related to water capacity problems (**Impact UTL-3**).

Utility-Scale Structure-Mounted Wind Energy Facilities

Utility-scale structure-mounted wind energy facilities would have substantially less water demand as compared to utility-scale ground-mounted wind energy facilities. As further described under Criterion B, these facilities would result in minimal ground disturbance, if any, or other construction activities that would require substantial water for dust control purposes. During maintenance, wind energy facilities are typically cleaned with water on an annual basis. Such activities would be akin to hosing off a paved area or a lawn. As such, construction and

operation of utility-scale structure-mounted wind energy facilities would not require water use to the extent that water supplies would be depleted.

Water for these uses is often obtained from on-site wells or obtained from a water provider or district and/or delivered to the site by truck. The CUP discretionary review process would require all future utility-scale structure-mounted wind energy facilities in R-1 zones to be evaluated under CEQA and to implement measures to minimize impacts to utilities, as necessary. Water usage would be evaluated for impacts to water supply and other associated environmental impacts at the project level as part of the County's discretionary review process. Utility-scale structure-mounted wind energy facilities in all other zones would be subject to the Minor CUP review process. Additionally, before a future utility-scale structure-mounted wind energy facility can connect to a water district system, approval must be obtained, and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. However, there is an overdraft of groundwater in the Antelope Valley region; therefore, groundwater (such as from on-site wells) may not be a reliable source of water for future projects in this area. The project area includes Antelope Valley and the Antelope Valley Groundwater Basin. For this reason, impacts would be potentially significant (**Impact UTL-4).**

Criterion E: ***Would the project 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?***

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Although minor upgrades to electrical transmission facilities could result from some structure-mounted small-scale solar energy systems or utility-scale structure-mounted solar energy facilities, the upgrades would limited to the existing right-of-way and would not result in significant environmental effects. Potential new electrical transmission facilities or expansions of existing electrical transmission facilities involved with small-scale ground-mounted systems would not be substantial. Under the proposed project, small-scale solar energy systems would provide energy primarily for on-site uses, although these systems may use excess energy off site. Small-scale solar energy systems are limited to a maximum lot coverage of 25% of the lot or parcel of land, or 2.5 acres, whichever is less. These systems would typically be sized for the existing on-site use and would use existing infrastructure. Small-scale solar energy systems would not generate a demand for natural gas or propane, necessitating the construction of new facilities or the expansion of existing facilities, as solar energy systems do not typically involve the use of natural gas or propane. Therefore, although minor infrastructure improvements or upgrades may be involved with implementation of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities, no substantial construction would result, and impacts would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA at a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Although minor expansion of electrical transmission facilities could result from some small-scale wind energy systems, the expansions involved with small-scale wind energy systems would not be substantial. Under the proposed project, small-scale renewable energy facilities are those that would provide energy primarily for on-site uses. For small-scale wind energy systems, the definition of "small-scale" applies to those that have a capacity of 50 kilowatts or less. Energy generated by a small-scale wind energy system that exceeds on-site energy demand may be used off site, which could require infrastructure to transport the energy not used on site. However, due to the small generation capacity of wind energy systems that would be classified as small scale, substantial construction of energy infrastructure would not result from implementation of the proposed project relative to small-scale wind energy systems. Temporary MET towers would not require expansions or upgrades of transmission infrastructure, as such systems are used for testing purposes and do not produce energy for the

grid. Small-scale wind energy systems would not generate a demand for natural gas or propane necessitating the construction of new facilities or the expansion of existing facilities, as wind energy systems do not typically involve the use of natural gas or propane. Therefore, although minor infrastructure improvements or upgrades may be involved with implementation of small-scale wind energy systems and temporary MET towers, no substantial construction would result, and impacts would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities

Utility-scale ground-mounted renewable energy facilities may be associated with transmission infrastructure upgrades and/or expansions that may result in environmental effects. Activities could include extensions of transmission lines, additions of gen-tie lines, and upgrades to generators. These activities would necessitate construction and would also involve ongoing operation and maintenance. Temporary, construction-related effects resulting from these activities would include ground disturbance, air emissions, noise, use of hazardous materials, and construction traffic. Increased activities on the site, vegetation removal, and ground disturbance would have the potential to affect sensitive species or habitat areas. Air emissions and increased noise and/or vibration could affect nearby sensitive receptors (depending on the location of the site), such as schools and hospitals. Construction traffic could result in increased road hazards or in traffic generation. Long-term, operational effects could include effects to scenic resources resulting from poles, wires, or other structures; effects to biological resources such as avian species that may be affected by wires; and effects related to hazards and safety that could be caused by siting electric wires near residences or vegetation. Such impacts would be potentially significant, depending on project-specific site characteristics and individual project design. The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy facilities to be evaluated under CEQA and would require implementation of measures to minimize environmental impacts, as necessary. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level below significance, the proposed project may result in **potentially significant** impacts related to new energy facilities or expansion of existing energy facilities (**Impact UTL-3**).

Utility-Scale Structure-Mounted Wind Energy Facilities

As explained under Criterion B, utility-scale structure-mounted wind energy facilities would not include major transmission infrastructure expansions. Although minor upgrades to electrical transmission facilities could result from some utility-scale structure-mounted wind energy facilities, the upgrades would limited to the existing right-of-way and would not result in significant environmental effects. The discretionary review process would require all future utility-scale structure-mounted wind energy facilities to be evaluated under CEQA and would

require measures to minimize impacts. Because these facilities would use existing infrastructure and any new energy-related facilities would be limited to upgrades that would be contained within the existing right-of-way, impacts would be **less than significant**.

Criterion F: Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Criterion G: Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Project-Level Components

The proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in O-S or W zones would require a Minor CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in R-1 zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

Small-Scale Solar Energy Systems and Utility-Scale Structure-Mounted Solar Energy Facilities

Construction of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities could generate minor amounts of construction-related solid waste. As characterized in Table 4.17-2, the County includes multiple solid waste facilities, all of which have permitted excess capacity. Any minor amounts of solid waste that would result from the construction of small-scale solar energy systems would be accommodated by these existing solid waste facilities. Operation of such systems would not generate solid waste. Decommissioning of utility-scale structure-mounted solar energy facilities would generate some waste. Based on the requirement of the Integrated Waste Management Act that the County provide for sufficient solid waste capacity in its landfills for a 15-year period (to be periodically updated), it is anticipated that the local landfills would have capacity to accept the waste from decommissioning activities. Although minor amounts of solid waste could be generated by some small-scale solar

energy systems and utility-scale structure-mounted solar energy facilities, solid waste facilities within the County have excess permitted capacity, the systems and facilities would comply with regulations, and impacts related to solid waste would be **less than significant**.

Program-Level Components

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits and therefore would be evaluated under CEQA at a project-specific level at the time permits are processed.

Small-Scale Wind Energy Systems and Temporary MET Towers

Construction of small-scale wind energy systems and temporary MET towers could generate minor amounts of construction-related solid waste. As characterized in Table 4.17-2, the County includes multiple solid waste facilities, all of which have permitted excess capacity. Any minor amounts of solid waste that would result from the construction of small-scale wind energy systems and temporary MET towers would be accommodated by these existing solid waste facilities. Operation of small-scale wind energy systems and temporary MET towers would not generate solid waste. Equipment would be recycled when feasible and would otherwise be transmitted to the appropriate solid waste facility. Although minor amounts of solid waste could be generated by some small-scale wind energy systems and temporary MET towers, solid waste facilities within the County have excess permitted capacity, the systems would comply with regulations, and impacts related to solid waste would be **less than significant**.

Utility-Scale Ground-Mounted Renewable Energy Facilities and Utility-Scale Structure-Mounted Wind Energy Facilities

Construction

Construction waste from utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities would generally involve concrete, wood, scrap metal, plastics from packaging material, empty non-hazardous waste containers, and vegetation wastes. Utility-scale ground-mounted and structure-mounted renewable energy facilities would be subject to the 2014 County Building Code (Title 26). Any material that cannot be recycled would be properly disposed of at a regional Class III landfill. Any hazardous materials would be recycled or disposed of at a Class I landfill facility and would be transmitted to the recycling or disposal facility by a licensed and permitted hazardous waste hauler. In accordance with Title 22, Chapter 20.87, of the L.A. County Code, project applicants would also be required to prepare a recycling and reuse plan and progress reports to implement and document recycling practices. Although construction waste that is not recycled would likely be

accommodated by the excess capacity in the solid waste facilities located throughout the County, future projects' effects on solid waste would be further evaluated under CEQA at the project-specific level as part of the County's CUP (or Minor CUP, for utility-scale structure-mounted wind energy facilities in all zones but R-1) discretionary review process.

Operation

Minimal waste would be generated during operation of utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities, which would include typical office waste from activities at future operations and maintenance facilities and, periodically, packaging wastes from solar or wind equipment and supplies. Operations and maintenance-generated waste would be recycled to the extent possible. Although operational solid waste generation from future utility-scale facilities is not anticipated to impact local landfill capacities, future projects' operational effects on solid waste would be further evaluated under CEQA at the project-specific level as part of the County's CUP (or Minor CUP, for utility-scale structure-mounted wind energy facilities in all zones but in R-1) discretionary review process.

Decommissioning

During decommissioning of utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities, solid waste generation would be similar to waste generated during construction, with the exception of the solar and wind equipment that would need to be recycled and/or disposed of. Based on the Integrated Waste Management Act requirement that the County provide for sufficient solid waste capacity in its landfills for a 15-year period (to be periodically updated), it is anticipated that the local landfills would have capacity to accept the waste from decommissioning activities. Project-specific review under CEQA would be conducted at the project level as part of the County's CUP (or Minor CUP, for utility-scale structure-mounted wind energy facilities in all zones but R-1) discretionary review process.

For the above reasons and due to further project-specific review under CEQA, impacts are anticipated to be **less than significant**.

4.17.5 Level of Significance Before Mitigation

Without mitigation, the following impacts would be potentially significant:

Impact UTL-1 Impacts to water supply from the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities under the proposed project.

Impact UTL-2 Impacts to water supply from the development of small-scale wind energy systems and temporary MET towers under the proposed project

Impact UTL-3 Impacts to water supply from the development of utility-scale ground-mounted renewable energy facilities under the proposed project.

Impact UTL-4 Impacts to water supply from the development of utility-scale structure-mounted wind energy facilities under the proposed project

4.17.6 Mitigation Measures

The following mitigation measure from Section 4.9, Hydrology and Water Quality, would reduce potentially significant impacts to water supply, particularly related to groundwater resources (**Impact UTL-2 through Impact UTL-4)**, but not to a level less than significant:

MM HYD-1 All small-scale wind energy systems, temporary meteorological towers, utility-scale ground-mounted solar and wind energy projects, and utility-scale structure-mounted wind energy projects that require a discretionary permit shall be subject to California Environmental Quality Act review, and when impacts to groundwater resources are determined to be potentially significant, evaluation of groundwater resources, such as the preparation of a groundwater resources investigation report, may be required by the Los Angeles County Department of Public Works. The report shall analyze the drawdown of wells and recommend feasible and appropriate project-specific mitigation measures to reduce impacts, such as well monitoring and pumping caps, or requiring water from other sources.

4.17.7 Level of Significance After Mitigation

Impact UTL-1, Impact UTL-2, Impact UTL-3, Impact UTL-4

There are no feasible mitigation measures to reduce impacts to water supply, particularly groundwater resources, due to development of renewable energy systems and facilities under the proposed project. Therefore, impacts would remain **potentially significant and unavoidable**.

Table 4.17-1
Water Suppliers

Planning Area	Water Supplier	Retail Providers	Key Sources	Supply Status
Antelope Valley				
Antelope Valley Planning Area	Antelope Valley–East Kern Water Agency Palmdale Water District		State Water Project	Demand in Antelope Valley greater than current delivery capacities
Antelope Valley Planning Area	Little Rock Creek Irrigation District		The district stores water runoff from the Angeles National Forest behind the Littlerock Dam	
Antelope Valley Planning Area	Palmdale Water District		Groundwater; Littlerock Dam; State Water Project	Supplies the expanding population in the Antelope Valley
Antelope Valley Planning Area	County Waterworks District 40		Water supply is purchased from Antelope Valley–East Kern Water Agency and is supplemented by groundwater pumped from the Antelope Valley Groundwater Basin	Supplies drinking water for urban use in the Antelope Valley
Unincorporated Urban Islands				
Santa Clarita Valley Planning Area	Castaic Lake Water Agency	Los Angeles County Waterworks District 36; Newhall County Water District; Santa Clarita Water Company; Valencia Water Company	40% of supply sourced from groundwater, other sources include the State Water Project and surface water	Irrigation demands are declining as urban areas expand
Los Angeles Basin and Santa Monica Mountains (Santa Monica Mountains, San Fernando Valley, Westside, Metro, South Bay, West San Gabriel Valley, East San Gabriel Valley, and Gateway Planning Areas)	Metropolitan Water District	27 member agencies contract with the Metropolitan Water District and together serve about 300 cities and unincorporated communities	Colorado River and State Water Project (purchased and sold by Metropolitan Water District); member agencies obtain additional water from surface and groundwater sources	Metropolitan Water District supplies members with a total of about 2 million acre-feet of water per year

Source: County of Los Angeles ~~2014~~2015.

Table 4.17-2
Landfills

Landfill	City/Community	Planning Area	Remaining Capacity (cubic yards)
Antelope Valley			
Antelope Valley Public Landfill	City of Palmdale	Antelope Valley Planning Area	19,952,000
Lancaster Landfill and Recycling Center	City of Lancaster	Antelope Valley Planning Area	14,491,000

Table 4.17-2
Landfills

Landfill	City/Community	Planning Area	Remaining Capacity (cubic yards)
Coastal Islands			
San Clemente Landfill	San Clemente Island	Coastal Islands Planning Area	317,882
Pebbly Beach Landfill	City of Avalon and unincorporated Catalina Island (located on border)	Coastal Islands Planning Area	104,568
Unincorporated Urban Islands			
Chiquita Canyon Sanitary Landfill	Unincorporated community of Castaic	Santa Clarita Valley Planning Area	6,020,000
Calabasas Sanitary Landfill	Unincorporated community of Agoura	Santa Monica Mountains Planning Area	12,338,000
Simi Valley Landfill and Recycling Center	City of Simi Valley (Ventura County)	West of the San Fernando Valley Planning Area	156,333,000
Sunshine Canyon City/County Landfill	City of Los Angeles and unincorporated community of Sylmar	San Fernando Valley Planning Area	96,393,000
Scholl Canyon Landfill	City of Glendale	San Fernando Valley Planning Area	7,011,000
El Sobrante Landfill	City of Corona (Riverside County)	East of the East San Gabriel Valley Planning Area	298,000,000
Olinda Alpha Sanitary Landfill	City of Brea (Orange County)	South of the East San Gabriel Valley Planning Area	45,500,000

Source: CalRecycle 2014.

CHAPTER 5
CUMULATIVE EFFECTS

5.1 INTRODUCTION

The California Environmental Quality Act (CEQA) Guidelines Section 15355 defines cumulative effects as two or more individual effects, which when considered together are significant or which compound or increase other environmental impacts. The CEQA Guidelines further state that individual effects may be changes resulting from a single project or a number of separate projects, or the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. The CEQA Guidelines Section 15130 allows for the use of two alternative methods to determine the scope of projects to analyze cumulative impacts.

List Method*:* A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.

General Plan Projection Method: A summary of projects contained in an adopted general plan or related planning document, or in a prior environmental document, that has been adopted or certified, which describes or evaluates regional or area-wide conditions contributing to the cumulative impact.

- The cumulative analysis conducted for this environmental impact report (EIR) is based on both the list method and the general plan projection method. For each environmental issue area, the following categories and example projects are described, when applicable. The following list of categories serves as the foundation on which the cumulative analysis approach has been based: County of Los Angeles ~~2014~~ 2015 Draft General Plan Update and associated EIR[1]
- Renewable energy projects (see Table 3-6, Approved and Proposed Renewable Energy Projects, for a list of approved solar and wind projects within the unincorporated County)

The assessment of potential cumulative impacts involves consideration of the proposed project in combination with the growth in the region.

As a matter of information, the proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would therefore undergo future CEQA review on a project-

[1] The 2015 Draft General Plan has been approved and is anticipated to become adopted by July 2015.

specific level at the time the discretionary permit is processed; and (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones.~~; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed.~~ Future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-1) zones would require a Minor CUP, with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Projects requiring a Minor CUP would be subject to CEQA on a project-specific level at the time the discretionary permit is processed.

5.1.1 Aesthetics

For the purpose of this EIR, the geographic scope for the cumulative analysis of aesthetics includes the Los Angeles region, which encompasses the entire County, including both incorporated and unincorporated areas, as well as surrounding counties and public lands.

Criterion A: Scenic Vistas

Cumulative projects located in the County can potentially result in a cumulatively significant impact to scenic vistas if in combination they would result in visual impacts within the viewshed of a scenic vista. Adjacent jurisdictions, including incorporated cities, adjacent counties, and federal and state-managed lands, have general plan policies, zoning ordinances, and other ordinances or regulations in place to protect scenic vistas within their jurisdictions. However, it cannot be assured that past, present, and foreseeable future projects will be required to adhere to regulations that protect scenic vistas. Therefore, projects in the region, in combination with the proposed project, have the potential to result in cumulatively significant impacts to scenic vistas.

As described in Section 4.1.4 of this Draft EIR, development of future small-scale solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale wind energy systems, temporary MET towers, utility-scale structure-mounted wind energy facilities, temporary MET towers, and utility-scale ground-mounted renewable energy facilities would have the potential to result in impacts to scenic vistas. Although small-scale and utility-scale structure-mounted solar energy systems would be subject to compliance with the proposed Zoning Code amendments (see Table 3-2, Environmental Design Considerations), future small-scale and utility-scale structure-mounted solar energy systems and any associated accessory equipment would not be subject to environmental or design review and would introduce new elements that could detract from a nearby scenic vista.

Future small-scale ground-mounted solar energy systems could have the potential to affect scenic resources that contribute to a scenic vista due to the potential break in the existing horizon lines. Nonetheless, most small-scale ground-mounted solar energy systems ~~would be subject to compliance with the proposed Hillside Management Areas Ordinance and~~ would not require discretionary or design review under the proposed project. Future small-scale ground-mounted solar energy projects would be subject to project-specific CEQA review in the O-S and W zones, and systems of a certain size would be subject to project-specific CEQA review in Hillside Management Areas, upon adoption of the General Plan Update (anticipated to occur in July 2015). Because CEQA requires the identification of potential feasible means of avoiding or substantially lessening significant adverse impacts, small-scale ground-mounted solar energy systems proposed in areas designated O-S or W would be required to minimize, avoid, and/or mitigate impacts to scenic vistas. Utility-scale structure-mounted solar energy projects would be prohibited in the O-S and W zones, and projects that do not meet the definition of a "small residential rooftop solar energy system" as defined in Government Code Section 65850.5(j)(3) would require a Minor CUP in R-1 zones.

Small-scale wind energy systems would be subject to requirements outlined in Table 3-2, Environmental Design Considerations, and Table 4.1-2, Setback Requirements for Temporary MET Towers and Small-Scale Wind Energy Systems, in the EIR, and the proposed Zoning Code amendments. Utility-scale renewable energy facilities would be subject to requirements outlined in Table 3-2, Table 4.1-2, and Table 4.1-3, Setback Requirements for Utility-Scale Ground Mounted Wind Energy Facilities, in the EIR as well as the proposed Zoning Code amendments. Furthermore, such projects would require discretionary approval through a Minor CUP (for small-scale wind energy systems and utility-scale structure-mounted wind energy facilities) and a CUP for utility-scale ground-mounted renewable energy facilities, which would trigger additional CEQA review. The approved and proposed renewable energy projects listed in Table 3-6 of this EIR provide photovoltaic solar projects in the unincorporated County that could comprise scenic vistas within the County and surrounding areas. Since it is not known at this time where future projects would be located in relation to the currently approved and proposed projects within the County and adjacent jurisdictions, and since there is no guarantee that future project-specific environmental review with mitigation measures would fully reduce potential impacts related to scenic vistas to levels below significance, future small-scale wind energy systems and utility-scale renewable energy facilities may be located close to scenic vistas and introduce visual elements that could contribute to cumulative aesthetic impacts.

Based on the above discussion, in combination with other past, present, and foreseeable future projects, the proposed project would potentially contribute to a **cumulatively significant** impact to scenic vistas (**Impact CU-AES-1**).

Criterion B: Views from Trails

Projects located in the County can potentially result in a cumulatively significant impact to scenic resources if in combination they would substantially damage or obstruct views of a regional trail. The proposed project would allow for the development of renewable energy systems near a regional riding or hiking trail. Past, present, and foreseeable future projects are not all held to strict standards protecting scenic resources and may also be developed in proximity to a regional trail. For example, utility projects in the County or development projects in adjacent jurisdiction sometimes have direct or indirect adverse effects on scenic resources in the region. Therefore, the cumulative projects in the region would have the potential to result in cumulatively significant impacts to views from trails.

Although small-scale and utility-scale structure-mounted solar energy systems would be subject to compliance with the proposed Zoning Code amendments (see Table 3-2), future small-scale and utility-scale structure-mounted solar energy systems and any associated accessory equipment would not be subject to environmental or design review and would introduce new elements that may detract from views of a nearby regional riding or hiking trail.

Future small-scale ground-mounted solar energy systems could have the potential to affect regional trails. Nonetheless, most small-scale ground-mounted solar energy systems ~~would be subject to compliance with the proposed Hillside Management Areas Ordinance and~~ would not be subject to discretionary or design review under the proposed project. Future small-scale ground-mounted solar energy systems would be subject to project-specific CEQA review in the O-S and W zones, and systems of a certain size would be subject to project-specific CEQA review in Hillside Management Areas, upon adoption of the General Plan Update (anticipated to occur in July 2015). Because CEQA requires the identification of potential feasible means of avoiding or substantially lessening significant adverse impacts, small-scale ground-mounted solar energy systems proposed in areas designated O-S or W would be required to minimize, avoid, and/or mitigate impacts to regional trails. Utility-scale structure-mounted solar energy projects would be prohibited in the O-S and W zones, and projects that do not meet the definition of a "small residential rooftop solar energy system" as defined in Government Code Section 65850.5(j)(3) would require a Minor CUP in R-1 zones.

Small-scale wind energy systems would be subject to requirements outlined in Table 3-2 and Table 4.1-2 in the EIR and in the proposed Zoning Code amendments. Utility-scale renewable energy facilities would be subject to requirements outlined in Table 3-2 in the EIR as well as in the proposed Zoning Code amendments. Furthermore, such projects would require discretionary approval through a Minor CUP (for small-scale wind energy systems and utility-scale structure-mounted wind energy facilities) or a CUP (for utility-scale ground-mounted renewable energy facilities), which would trigger additional CEQA review.

The approved and proposed renewable energy projects listed in Table 3-6 of this EIR provide photovoltaic solar projects in the unincorporated county that could result in impacts to trails within the County and surrounding areas. Since it is not known at this time where these future projects would be located in relation to the currently approved and proposed projects within the County and adjacent jurisdictions, and since there is no guarantee that future project-specific environmental review with mitigation measures would fully reduce potential impacts related to regional trails to a level below significance, future small-scale wind energy systems and utility-scale renewable energy facilities may be located close to public trails and introduce visual elements that could contribute to cumulative aesthetic impacts.

Based on the above discussion, in combination with other past, present, and foreseeable future projects, the proposed project would potentially contribute to a **cumulatively significant** impact to public trails (**Impact CU-AES-2**).

Criterion C: State Scenic Highways

Projects located in the County can potentially result in a cumulatively significant impact to scenic resources if in combination they would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within the viewshed of a state scenic highway. The proposed project would allow for the development of renewable energy systems near a state scenic highway. Past, present, and foreseeable future projects are not all held to specific standards protecting scenic resources and may also be developed near a state scenic highway. For example, utility projects in the County or development projects in adjacent jurisdictions sometimes have direct or indirect adverse effects on scenic resources in the region. Therefore, the proposed project in combination with cumulative projects has the potential to contribute to **cumulatively significant** impacts to scenic resources within a state scenic highway (**Impact CU-AES-3**).

Criterion D: Visual Character of the Site

Projects located in the County could potentially result in a cumulatively significant impact to visual character or quality if, in combination, they would substantially degrade the existing visual character or quality of the site and its surroundings. The proposed project would introduce new development throughout the unincorporated County where past, present, and future development may also occur. Therefore, the proposed project in combination with cumulative projects has the potential to contribute to **cumulatively significant** impacts related to visual character and quality (**Impact CU-AES-4**).

Criterion E: Light and Glare

The construction and operation of projects located in the County can create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Impacts from glare are generally localized and not cumulative in nature. However, new sources of nighttime light pollution in the County would result in a potential lighting impact to rural locations, particularly the Santa Monica Mountains, San Gabriel Mountains, and Antelope Valley. Despite lighting ordinances and other regulations pertaining to night lighting and mitigation measures that would reduce light pollution on a project-by-project basis, the combined effect of all projects in the County would be a cumulative increase in light pollution. Furthermore, the County's Rural Outdoor Lighting District (Dark Skies) Ordinance requirements currently cover only the North County and the Santa Monica Mountains area. As described in Section 4.1.4 of this EIR, the lighting required for Federal Aviation ~~Authority~~ Administration (FAA) compliance could contribute to potentially significant impacts associated with nighttime lighting. The height of wind turbines and the repetitive flashing of FAA-required obstruction lighting may result in a strong, constant source of highly visible light, and nighttime views for area residents may be affected. Therefore, the proposed project in combination with cumulative projects has the potential to contribute to **cumulatively significant** impact associated with nighttime lighting (**Impact CU-AES-5**).

5.1.2 Agriculture and Forestry Resources

The geographic scope of cumulative impact analysis for agricultural and forestry resources vary depending on the type of resource that may be impacted. For the purpose of this EIR, the geographic scope for the cumulative analysis of agricultural resources includes the County, which encompasses the entire County, including both incorporated and unincorporated areas, as well as surrounding counties and public lands.

Criterion A: Conversion of Farmland

Within the greater Los Angeles region, the conversion of Farmland is increasing due to population growth, the need for commercial and industrial-related uses, and the subsequent development required to support the population growth and commercial and industrial needs. As stated in the ~~2014~~ 2015 Draft General Plan Update (County of Los Angeles ~~2014~~2015), the overall County has experienced a ~~6.7%~~ decrease in Farmland ~~between 1984 and 2010~~. Projects that have the potential to result in adverse impacts to Farmland include, but are not limited to, buildout of the project area allowed by the ~~2014~~ 2015 Draft General Plan Update and the ~~proposed~~ 2015 Antelope Valley Area Plan Update as well as the development of land uses as designated under surrounding jurisdictions' general plans. These projects are regulated by federal, state, and local regulations.

The development of small-scale ground-mounted and structure-mounted solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale and utility-scale structure-mounted wind energy systems and facilities, small-scale ground-mounted wind energy systems, and temporary MET towers would require a relatively minor operational footprint primarily associated with the foundations (if warranted) of existing structures, or based on requirements in the proposed Zoning Code amendments, and thus would not directly or significantly convert Farmland to a non-agricultural use.

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale) and temporary MET towers would require a Minor CUP discretionary process, which would trigger additional CEQA review. Utility-scale ground-mounted renewable energy facilities would potentially require substantial ground disturbance and would be subject to a CUP discretionary review process, which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement feasible mitigation measures. However, as there is no guarantee that future project-specific-level environmental review with mitigation measures would fully reduce potential impacts related to Farmland to a level below significance, future utility-scale ground-mounted renewable energy facilities may result in a cumulatively significant impact related to conversion of Farmland when combined with other past, present, and foreseeable future projects (**Impact CU-AGR-1**).

Criterion B: Agricultural Zoning and Williamson Act Contracts

As discussed in Section 4.2.4, future small-scale solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale wind energy systems, and temporary MET towers would result in less than significant impacts to the County's agricultural zoning. Under the proposed project, small-scale ground-mounted solar energy systems would be allowable in the County's agricultural zones (A-1, Light Agricultural; A-2, Heavy Agricultural; and A-2-H, Heavy Agricultural including Hog Ranches) upon obtaining a Site Plan Review/Zoning Conformance Review (ZCR) ministerial permit. Small-scale solar energy systems would be permitted as accessory uses and would not convert Farmland to a non-agricultural use; rather, the small-scale solar energy systems would assist in agricultural operations. Therefore, in combination with other past, present, and foreseeable future projects, the proposed project **would not contribute to a cumulatively significant** impact related to conflicts with agricultural zoning and Williamson Act contracts.

Small-scale and utility-scale structure-mounted wind energy systems and facilities would be constructed on existing rooftops and thus would result in minimal ground disturbance, if any, which would not result in conversion of agricultural zone or Williamson Act contract land. Although small-scale ground-mounted wind energy systems would require erection of turbine

towers and construction of concrete foundations, due to the limited generating capacity of such systems allowed by the proposed Zoning Code amendments, such systems would not be expected to result in substantial ground disturbance to an extent that would conflict with agriculturally zoned land or Williamson Act contract land. Although not specifically permitted by current Williamson Act regulations, small wind turbines and other accessory uses are typically permitted if these uses are compatible with existing agricultural operations. Furthermore, the amount of Williamson Act contract land within the County is limited and currently exists only on Santa Catalina Island. Future temporary MET towers would not substantially interfere with agricultural lands or Williamson Act contract lands since they would be temporary and once wind testing is completed, the MET towers would be removed and previous agricultural uses could return. Additionally, under the proposed project, development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require discretionary review permits, which would trigger additional CEQA review. Therefore, in combination with other past, present, and foreseeable future projects, future small-scale and utility-scale structure-mounted wind energy systems and facilities, small-scale ground-mounted wind energy systems, and temporary MET towers **would not contribute to a cumulatively significant** impact related to conflicts with agricultural zoning and Williamson Act contracts.

Utility-scale ground-mounted renewable energy facilities could require substantial ground disturbance and would be subject to discretionary review for a CUP. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement feasible mitigation measures. However, as there is ultimately no guarantee on a project-specific level that mitigation measures would reduce impacts to a level below significant, the proposed project may result in a **cumulatively significant** impact related to agricultural zoning and Williamson Act contracts when combined with other past, present, and foreseeable future projects (**Impact CU-AGR-2).**

Criterion C: Forest or Timberland Conflicts

As the County has no existing zoning specifically designating forest or timberland use, the development of small-scale or utility-scale renewable energy systems or facilities or temporary MET towers, when combined with other past, present, and foreseeable future projects, **would not contribute to a cumulatively significant** impact to such forest or timberland zones.

Criterion D: Loss ~~of~~ or Conversion of Forest Land

Forest land, as defined by the Public Resources Code, can occur in many areas throughout the County. Projects that have the potential to result in adverse impacts to forest land include, but are not limited to, development of the ~~2014~~ 2015 Draft General Plan Update, the 2015 Antelope

Valley Area Plan Update, and the development of land uses as designated under surrounding jurisdictions' general plans.

The future development of small-scale and utility-scale structure-mounted solar energy systems and facilities, small-scale wind energy systems and facilities, and temporary MET towers would require a relatively minor operational footprint, primarily associated with the foundations (if warranted), and would be accessory uses that would not result in significant loss or conversion of forest land. Small-scale ground-mounted solar energy systems would involve ground disturbance that could potentially occur on forest land; however, these systems would be limited in size per the proposed Zoning Code amendments and would be subject to state and local regulations, including ~~the Significant Ecological Area (SEA) Technical Advisory Committee (SEATAC) review and~~ the California Fish and Game Code. Furthermore, such systems would undergo project-level CEQA review for O-S and W zones, which generally contain a concentration of the County's limited forest lands. ~~Future renewable energy systems that are located within an SEA would be subject to review by SEATAC.~~ Based on compliance with state and County regulations protecting forest land, and the likelihood that ground disturbance associated with small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be limited, in combination with other past, present, and foreseeable future projects, the proposed project **would not contribute to a cumulatively significant** impact to forest land.

Future small-scale ground-mounted wind energy systems would be subject to a Minor CUP discretionary process, which would trigger additional CEQA review. Therefore, small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, and temporary MET towers implemented under the proposed project, in combination with other past, present, and foreseeable future projects, **would not contribute to a cumulatively significant** impact to forest land.

The County's limited forest resources are mostly located within the O-S and W zones, in which utility-scale ground-mounted renewable energy facilities would be prohibited. Forest resources located outside of these zones would be generally confined to limited hillside areas along the foothills of the San Gabriel Mountains and riparian canyons. Therefore, while utility-scale ground-mounted renewable energy facilities would require large amounts of land when compared to small-scale energy systems, it is unlikely that such facilities or any other cumulative project would result in the loss or conversion of the limited forest land within the County. In combination with other past, present, and foreseeable future projects, the proposed project **would not contribute to a cumulatively significant** impact to forest land.

Criterion E: Indirect Conversion of Farmland or Forest Land

Within the greater Los Angeles region, the indirect conversion of Farmland is increasing due to population growth, the need for commercial and industrial related uses, and the subsequent

development required to support the population growth and commercial and industrial needs. As stated in the 20152014 Draft General Plan Update, the overall County experienced a 6.7% decrease in Farmland between 1984 and 2010. Projects that have the potential to result in adverse indirect impacts to Farmland or forest land include, but are not limited to, buildout of the Project Area allowed by the 2014 2015 Draft General Plan Update and the proposed 2015 Antelope Valley Area Plan Update as well as the development of land uses as designated under surrounding jurisdictions' general plans.

The development of small-scale ground-mounted and structure-mounted solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale and utility-scale structure-mounted wind energy systems, and temporary MET towers would require a relatively minor operational footprint, primarily associated with the foundations (if warranted) of existing structures, or based on requirements in the proposed Zoning Code amendments, and thus would not result in significant indirect adverse effects to Farmland or forest land. Therefore, in combination with other past, present, and foreseeable future projects, the proposed project **would not contribute to a cumulatively significant** indirect impact to Farmland or forest land.

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale) and temporary MET towers would require a Minor CUP discretionary process, which would trigger additional CEQA review. Utility-scale ground-mounted renewable energy facilities would potentially require substantial ground disturbance and would be subject to a CUP discretionary review process, which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to implement feasible mitigation measures. Development of such systems and facilities could occur on or adjacent to Farmland or forest land. As there is ultimately no guarantee on a project-specific level that mitigation measures would reduce impacts to a level below significant, the proposed project may result in a cumulatively significant impact related to indirect effects to Farmland and forest land when combined with other past, present, and foreseeable future projects (**Impact CU-AGR-3).**

5.1.3 Air Quality

The geographic scope of the cumulative impact analysis for air quality includes the South Coast Air Basin (SCAB) and the Mojave Desert Air Basin (MDAB) for reactive air pollutants and the vicinity surrounding the SCAB and MDAB for non-reactive or less reactive pollutants.

Criterion A: Conflict with Applicable Air Quality Plan

Projects located in the Los Angeles region would have the potential to result in a cumulative impact to the South Coast Air Quality Management District (SCAQMD) Air Quality

Management Plans (AQMPs) and the Antelope Valley Air Quality Management District (AVAQMD) air quality management and attainment plans if, in combination, they would be inconsistent with the regional planning documents they are based on. Future projects may propose development beyond what is accounted for in the SCAQMD AQMPs and AVAQMD air quality management and attainment plans, which is based on County's (including unincorporated areas) and incorporated cities within the existing adopted General Plan projections. Additionally, cumulative projects located on federally managed lands would not be subject to the SCAQMD AQMPs and the AVAQMD air quality management and attainment plans. However, as discussed in Section 4.3.4 of this EIR, the basis for determining consistency with the AQMP is considered based on socioeconomic factors (e.g., population, employment). All components of the proposed project would not generate growth, substantially increase population, require the alteration of an existing land use designation through amendments to general plans or changes to zoning, or otherwise be anticipated to induce substantial unplanned population growth. Therefore, in combination with other past, present, and foreseeable future projects, the proposed project **would not contribute to a cumulatively significant** impact to conflicts with applicable air quality plans.

Criterion B: Violation of Air Quality Standard and Criterion C: Cumulative Increase in Criteria Pollutants

Projects located in the Los Angeles region would result in a significant cumulative air quality impact if, in combination, they violate any air quality standards or contribute substantially to an existing or projected air quality violation. The entire South Coast Air Basin (SCAB) is designated as a nonattainment area for both federal and state ozone 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 SCAB is also designated as a nonattainment area for state standards for particulate matter 10 microns in size or less (PM_{10}), and both federal and state standards for particulate matter 2.5 microns in size or less ($PM_{2.5}$). The County is designated nonattainment for state and federal lead standards. Although the MDAB is designated as both nonattainment and unclassified/attainment, the County portion of the MDAB is specifically designated as a nonattainment area for both federal and state ozone standards, which the EPA has classified as a "severe 15 nonattainment" area. The Antelope Valley is also designated as a nonattainment area for state PM_{10} standards. Projects within the County and surrounding jurisdictions, including incorporated cities, adjacent counties, and federal and state-managed lands would be required to comply with NAAQS and CAAQS pursuant to CEQA prior to approval. However, some environmental impacts associated with the development of such projects may be significant and unavoidable. Therefore, cumulative projects in the region would have the potential to result in cumulatively significant impacts associated with air quality violations and a cumulative increase in criteria pollutants.

Emissions associated with small-scale solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale wind energy systems, temporary MET towers, utility-scale ground-mounted facilities, and utility-scale structure-mounted wind energy facilities could include $PM_{2.5}$, PM_{10}, oxides of nitrogen (NO_x), carbon monoxide (CO), and volatile organic compounds (VOCs) from construction activities and as a result of traffic from operations and maintenance of these systems and facilities. The principal pollutant of concern during maintenance activities would be CO, VOCs, and NO_x that would be generated by maintenance vehicles traveling to future small-scale solar energy system, small-scale wind energy systems, and temporary MET towers, utility-scale ground-mounted facilities, and utility-scale structure-mounted wind energy facilities sites.

As discussed in Section 4.3.4 of the EIR, due to the brief construction period, minimal amount of traffic on project-area roadways, and minimal operational maintenance, small-scale solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale wind energy systems, and temporary MET towers are not expected to result in the exceedance of any federal or state air quality standards. Therefore, small-scale solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale wind energy systems, and temporary MET towers, in combination with other past, present, and foreseeable future projects, would not contribute to a cumulatively significant impact to air quality violations.

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require a Minor CUP discretionary process, which would trigger additional CEQA review. Utility-scale ground-mounted renewable energy facilities would potentially require substantial ground disturbance and would be subject to a CUP discretionary review process, which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to implement feasible mitigation measures. However, there is ultimately no guarantee that mitigation measures for all future utility-scale energy facilities will reduce impacts to a level below significant. Therefore, the proposed project would potentially contribute to a cumulatively significant impact associated with air quality violations, as well as a cumulative increase in criteria pollutants **(Impact CU-AQ-1).**

Criterion D: Expose Sensitive Receptors to Substantial Pollutant Concentrations

Projects located in the Los Angeles region would result in a cumulatively significant impact on sensitive receptors if, in combination, they would expose sensitive receptors to a substantial concentration of TACs that would significantly increase cancer risk. The risks are especially attributable to emissions from diesel particulate matter from truck trips. The construction of the renewable energy projects would result in a temporary increase in truck trips related to hauling

construction materials to and from a project site. Increases in truck trips may also result from new industrial or commercial development due to project operation. Placement of new sensitive receptors near existing TAC emissions may also result in a cumulatively significant impact. Residential development projects that are proposed to be located in close proximity to industrial or extractive land uses may result in these impacts. Projects located in adjacent jurisdictions, including incorporated cities, adjacent counties, and state-managed lands, would be required to comply with the CARB's recommendations for siting new sensitive receptors. However, some projects may not be subject to such regulations for TACs. Therefore, projects in the region may result in cumulatively significant impacts associated with sensitive receptors.

As described in Section 4.3.4, small-scale solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale wind energy systems and temporary MET towers, and utility-scale structure-mounted wind energy facilities are not anticipated to result in TACs near sensitive receptors. The amount of construction vehicle trips generated by future small-scale solar energy systems is anticipated to be minimal and short term. In addition, the maintenance trips would be sporadic and would not result in any permanent increases in vehicle trips that would contribute to long-term exhaust emissions resulting in substantial pollutant concentrations. Therefore, small-scale solar energy systems, utility-scale structure-mounted solar energy systems, small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities developed under the proposed project would not contribute to a cumulatively significant impact associated with sensitive receptors.

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), utility-scale ground-mounted solar energy facilities, and temporary MET towers would require Minor CUP discretionary process, and utility-scale ground-mounted renewable energy facilities would potentially require substantial ground disturbance and would be subject to a CUP discretionary review process, both of which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to implement feasible mitigation measures. However, there is ultimately no guarantee that mitigation measures for future utility-scale ground-mounted renewable energy facilities will reduce impacts to a level below significant. Therefore, the proposed project would potentially contribute to a cumulatively significant impacts associated with exposure of sensitive receptors to substantial pollutant concentrations **(Impact CU-AQ-2).**

Criterion E: Objectionable Odors

Projects located in the Los Angeles region may result in a cumulatively significant impacts associated with objectionable odors or, in combination, would create objectionable odors or place sensitive receptors next to existing objectionable odors. Future projects would be required to

comply with SCAQMD and AVAQMD Rule 402 prior to approval, which prohibits the discharge of air pollutants from a facility that cause injury, detriment, nuisance, or annoyance to the public or damage to business or property. However, some projects may not be subject to such regulations, such as those outside the jurisdiction of SCAQMD and AVAQMD. Therefore, projects in the region may result in cumulatively significant impacts associated with objectionable odors.

Small-scale solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale wind energy systems, and temporary MET towers are not listed as a source of objectionable odors as defined by SCAQMD. Small-scale solar energy systems, utility-scale structured-mounted solar energy facilities, small-scale wind energy systems, and temporary MET towers may generate some nuisance odors during construction due to construction equipment; however, due to the brief construction period and the smaller nature of these systems, the proposed project would not generate objectionable odors or place sensitive receptors next to existing objectionable odors that would affect a considerable number of persons or the public. Maintenance activities that use diesel equipment may also generate some nuisance odors; however, future maintenance activities would be infrequent and would occur for short periods of time. Therefore, small-scale solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale wind energy systems, and temporary MET towers developed under the proposed project would not contribute to a cumulatively significant impact associated with objectionable odors.

Utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities are not considered to be a source of objectionable odors as defined by SCAQMD. The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities to be evaluated under CEQA and to implement measures to minimize impacts related to objectionable odors, as necessary. Therefore, utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities developed under the proposed project **would not contribute to a cumulatively significant** impact associated with objectionable odors.

5.1.4 Biological Resources

The geographic scope of cumulative impact analysis for biological resources varies depending on the type of resource with potential to be impacted. For the purposes of this analysis, the cumulative impacts study area extends beyond the boundaries of Los Angeles County into the adjacent Tehachapi Mountains and Mojave Desert within Kern County to the north, the Mojave Desert and San Bernardino National Forest within San Bernardino County to the east, the Cleveland National Forest within Orange and Riverside Counties to the southeast, and Santa Monica Mountains and Los Padres National Forest within Ventura County to the west. It should

also be noted that large-scale, regional habitat conservation plans (HCPs), natural community conservation plans (NCCPs), and local plans occur within the cumulative impacts study area, including the West Mojave Plan, the draft DRECP, the Central/Coastal NCCP within Orange County, Western Riverside County Multispecies Habitat Conservation Plan, and Land Management Plans for the Southern California National Forests (i.e., Angeles, Cleveland, Los Padres, and San Bernardino National Forests).

Criterion A: Adverse Effect on Special-Status Species and Criterion B: Adverse Effect on Sensitive Natural Community

Impacts to special-status species and sensitive natural communities as a result of the proposed project were determined to be potentially significant; see Section 4.4 of this EIR. Utility-scale structure-mounted facilities would be prohibited in O-S and W zones, which are areas that contain a concentration of biological resources, and small-scale ground-mounted solar energy systems would require discretionary permits and project-level CEQA review when they are proposed in areas zoned O-S and W.

The proposed Zoning Code amendments include provisions to avoid and minimize biological impacts from small-scale solar energy systems, utility-scale structure-mounted solar facilities, small-scale wind energy systems and temporary MET towers. These provisions include principles incorporated from the California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development published by the California Energy Commission. ~~Pursuant to the environmental design considerations as listed in Table 3-2 in this EIR, future small-scale solar energy systems, utility-scale structure-mounted solar facilities, small-scale wind energy systems and utility-scale ground-mounted 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 and~~ Additional conditions of approval may be imposed by the County Regional Planning Commission. ~~, consistent with these guidelines, to reduce significant impacts to birds and bats.~~ Nonetheless, there is no guarantee at this time on a project-specific level that these provisions would reduce impact to less than significant levels, direct and indirect impacts to special-status species and their habitat through both structure-mounted and ground-mounted small-scale solar energy systems and utility-scale structure-mounted solar facilities would constitute cumulative significant impacts to candidate, sensitive, or special-status species or sensitive natural communities.

Ground-mounted utility-scale renewable energy facilities would be prohibited within adopted SEAs ~~designated in the existing adopted General Plan~~. Furthermore, the proposed project would prohibit concentrated solar thermal devices, which use lenses or mirrors to focus or reflect a large area of sunlight onto a small area; therefore, impacts from solar flux effects on birds and bats would not be expected.

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale), ~~utility-scale ground-mounted solar energy facilities,~~ and temporary MET towers would require Minor CUP discretionary process, and utility-scale ground-mounted renewable energy facilities would be subject to a CUP discretionary review process, both of which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to implement feasible mitigation measures. However, there is no guarantee at this time on a project-specific level that these provisions would reduce impacts to less than significant levels and since there is no guarantee that future project-specific-level environmental review with mitigation measures would fully reduce potential impacts related to biological impacts to levels below significance, future small-scale wind energy systems, and temporary MET towers may contribute to cumulative significant biological impacts (**Impact CU-BIO-1**).

Criterion C: Adverse Effect on Wetlands

Small-scale solar energy systems that are structure mounted would not likely impact wetland features since they would not disturb any ground and would generally be an accessory use to a primary structure on a parcel. Small-scale solar energy systems that are ground mounted may result in impacts to wetland features, but the impact would be avoided, minimized, and otherwise mitigated according to the existing laws and regulations such as obtaining Section 404 permits under the Clean Water Act, Section 401 Water Quality Certification, and/or Section 404 permits. Small-scale ground-mounted solar energy systems would also require project-level CEQA review under the Minor CUP process in O-S and W zones, which generally contain a concentration of the County's riparian resources. All utility-scale ~~ground-mounted~~ renewable energy facilities, ~~utility-scale structure-mounted wind energy facilities, temporary MET towers, and small-scale wind energy systems~~ would be prohibited in O-S and W zones, and small-scale wind energy systems and temporary MET towers would be prohibited in W zones. All utility-scale ground-mounted renewable energy facilities would also be prohibited within adopted SEAs ~~designated in the existing adopted General Plan~~. Pursuant to the proposed project, small-scale wind energy systems would also be set back from riparian areas and wetland a minimum of 300 feet or five times the system height, whichever is greater.

Utility-scale ground-mounted renewable energy development would require project-level CEQA review under the CUP process and would require compliance with the existing federal and state regulations such as obtaining Section 404 permits under the Clean Water Act, Section 401 Water Quality Certification, and/or Section 404 permits. Additionally, pursuant to the proposed project, utility-scale ground-mounted wind energy facilities would be set back from riparian areas and wetlands a minimum of ~~2,000 feet~~0.25 miles ~~or five times the facility height, whichever is greater~~.

Other regions and jurisdictions adjacent to the County would be subject to the same regulations. Therefore, based on the above discussion, cumulative impacts would be **less than significant**.

Criterion D: Interference with Wildlife Movement or Nursery Sites

In O-S and W zones, all utility-scale ~~ground-mounted~~ renewable energy ~~facilities, utility-scale structure-mounted wind energy facilities, temporary MET towers, and small-scale wind energy systems~~ would be prohibited, and small-scale wind energy systems and temporary MET towers would be prohibited in W zones. Additionally, all utility-scale ground-mounted facilities would be prohibited within adopted SEAs ~~designated in the existing adopted General Plan~~. Per the proposed Zoning Code amendments, small-scale wind energy systems and utility-scale ground-mounted wind energy facilities shall be set back from bat roosting sites, recorded open space easements and publicly designed preserve areas, riparian areas and wetlands, known golden eagle nest sites, and adopted SEAs (utility-scale ground-mounted provision only), which would reduce the potential impact of the project on bird and bat movement.

The proposed project would allow for solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale wind energy systems and temporary MET towers, and utility-scale structure-mounted wind energy facilities that may have the potential to impact birds and bats that travel within the County including the Pacific Flyway. Therefore, small-scale solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale wind energy systems and temporary MET towers, and utility-scale structure-mounted wind energy facilities, in combination with other past, present and foreseeable future projects, may result in a **cumulatively significant** impact related to wildlife movement or nursery sites.

Utility-scale ground-mounted renewable energy facilities would require large areas of land and may impact existing wildlife corridors. Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale) and temporary MET towers would require a Minor CUP discretionary process, and utility-scale ground-mounted renewable energy facilities would be subject to a CUP discretionary review process, both of which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to implement feasible mitigation measures. Adjacent jurisdictions, including incorporated cities, adjacent counties, and federal and state-managed lands would be required to comply with applicable federal and/or state regulations. If potentially significant impacts would occur from particular cumulative projects, then mitigation measures would be implemented to reduce impacts to the extent feasible. However, without a comprehensive NCCP in place for the long-term protection of wildlife movement corridors and nursery sites for the entire Southern California region, a cumulative loss of wildlife movement corridors and nursery sites would occur, even after mitigation has been implemented for individual projects. Therefore, a **significant cumulative** impact resulting from the proposed

project and cumulative projects associated with wildlife movement corridors and nursery sites would occur (**Impact CU-BIO-2**).

Criterion E: Conversion of Oak Woodlands

As described in Section 4.4.4, some future temporary MET towers and renewable energy systems/facilities 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 countywide within the Sensitive Environmental Resource Areas 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 trees, Northern California black walnut (*Juglans hindsii*), Southern California black walnut, and California sycamore. 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.

In O-S and W zones, all utility-scale ~~ground-mounted~~ renewable energy facilities~~, utility-scale structure-mounted wind energy facilities, temporary MET towers and small-scale wind energy systems~~ would be prohibited, and small-scale wind energy systems and temporary MET towers would be prohibited in W zones. Additionally, all utility-scale ground-mounted renewable energy facilities would be prohibited within adopted SEAs ~~designated in the existing adopted General Plan~~. Because oak woodlands are contained within a variety of zoning designations in the County, and because small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not be subject to further discretionary review in the County's other zones, future projects may impact oak woodlands if any exist on site.

Future small-scale wind energy systems and temporary MET towers, utility-scale ground-mounted renewable energy facilities, utility-scale structure-mounted wind energy facilities, and utility-scale structure-mounted wind energy facilities would require discretionary review process and additional CEQA review, and for the above mentioned systems and facilities that would impact oak trees would be required to obtain an Oak Tree Permit. Nevertheless, the County does not extend protected tree status to species other than oak trees, and therefore impacts to other unique species of native trees as a result of the proposed project, in combination with other past, present and foreseeable future projects could result in **cumulatively significant** impact related to oak trees and native trees (**Impact CU-BIO-3**).

Criterion F: Conflict with Local Policies or Ordinances and Criterion G: Conflict with Habitat Conservation Plan

As described in Section 4.4.4, currently, there are no NCCPs within the County. 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 small-scale solar energy systems ~~and utility-scale structure-mounted solar energy facilities~~ would be allowed in the O-S and W zones and utility-scale structure-mounted solar energy facilities would be prohibited in the O-S and W zones; however, because small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not require any further discretionary review in the majority of the County's zones, future projects, in combination with other past, present and foreseeable future projects may conflict with local policies or ordinances protection biological resources.

All utility-scale ~~ground-mounted~~ renewable energy facilities~~, utility-scale structure-mounted wind energy facilities, temporary MET towers , and small-scale wind energy systems~~ would be prohibited in the O-S and W zones, and small-scale wind energy systems and temporary MET towers would be prohibited in W zones. Additionally, all utility-scale ground-mounted renewable energy facilities would be prohibited within adopted SEAs ~~designated in the existing adopted General Plan~~. Future renewable energy facilities located in or around Sensitive Environmental Resource Areas would require review by the Energy Regulatory Board 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. Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale) and temporary MET towers would require Minor CUP discretionary process, and utility-scale ground-mounted renewable energy facilities would be subject to a CUP discretionary review process, both of which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to implement feasible mitigation measures. However, there is no guarantee that future project-specific environmental review with mitigation measures would fully reduce potential impacts related to biological resources to a level below significance, future utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities may result in a cumulatively significant impact related to biological resources when combined with other past, present, and foreseeable future projects (**Impact CU-BIO-4**).

5.1.5 Cultural Resources

The geographic scope of cumulative impact analysis for cultural resources varies depending on the type of resource with potential to be impacted. Geographic scope can be the entire area within which the resource has the potential to occur. For the purpose of this EIR, the geographic

scope for the cumulative impact analysis of cultural resources includes the Los Angeles region, which encompasses the entire County, including both incorporated and unincorporated areas, as well as surrounding counties and public agency lands.

Criterion A: Impact on a Historical Resource

Cumulatively, projects located in the Los Angeles region may result in impact associated with the loss of historical resources if in combination they would result in the physical demolition, destruction, relocation, or alteration of historical resources. Cumulatively, projects that may potentially result in adverse impacts to historical resources from development activities include the ~~2014~~ 2015 Draft General Plan Update and the development of land uses as designated under surrounding jurisdictions' general plans. These projects are regulated by federal, state, and local regulations, protecting historical resources, including policies found in the 2015 ~~2014~~ Draft General Plan Update. Furthermore, the County's Department of Regional Planning is currently drafting a comprehensive historic preservation ordinance (HPO) for the unincorporated areas of the County, which would be implemented once approved. However, even with regulations in place, individual historical resources may potentially be impacted or degraded from demolition, destruction, alteration, or structural relocation as a result of new private or public development or redevelopment allowable under cumulative projects. Therefore, the cumulative destruction of significant historical resources from construction and development planned within the region would be considered to be a cumulatively significant impact. Additionally, past projects involving development and construction have already impacted historical resources within the region.

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities 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 and would be subject to the *Secretary of the Interior's Standards for the Treatment of Historic Properties.* However, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would not undergo further discretionary review, and therefore it cannot be guaranteed at this time that these systems and facilities would implement the *Secretary of the Interior's Standards for the Treatment of Historic Properties* or other measures to reduce impacts to historical resources. Therefore, in combination with past, present, and future cumulative projects, small-scale solar energy systems developed under the proposed project could contribute to a cumulatively significant impact.

Similar to small-scale solar energy systems and utility-scale structure-mounted solar energy facilities, future small-scale wind energy systems and temporary MET towers, utility-scale ground-mounted renewable energy facilities, and utility-scale structure-mounted wind energy facilities could result in significant impacts to historical resources if historic building materials are removed, damaged, or altered or if the system is placed in an incompatible location that compromises a building's historic character or setting. Future utility-scale ground-mounted

projects located where historical resources are present could be significantly impacted due to potential visual impacts include fragmentation of large blocks of land and creation of industrial landscapes. Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale) and temporary MET towers would require a Minor CUP discretionary process, and utility-scale ground-mounted renewable energy facilities would be subject to a CUP discretionary review process, both of which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to comply with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and required to implement feasible mitigation measures. Additionally, properties designated as historic under the Draft HPO would require a Certificate of Appropriateness. However, the HPO has not been adopted and the County does not currently have regulations in place to ensure future projects would be required to mitigation potential impacts to historic resources to a level less than significant. Because there is no guarantee that future project-specific environmental review with mitigation measures would fully reduce potential impacts related to historical resources to a level below significance, the proposed project, in combination with past, present, and future cumulative projects, would contribute to a **cumulatively significant** impact (**Impact CU-CUL-1**).

Criterion B: Impact on an Archaeological Resource

Projects located in the Los Angeles region may result in a cumulative impact associated with the loss of archeological resources if in combination they would result in the physical demolition, destruction, relocation, or alteration of archaeological resources. Cumulative projects that would have the potential to result in adverse impacts to archeological resources from development activities include the 2015~~2014~~ Draft General Plan Update, the ~~proposed~~ 2015 Antelope Valley Area Plan Update, and the development of land uses as designated under surrounding jurisdictions general plans. These projects are regulated by federal, state, and local regulations, protecting archaeological resources, including policies found in the 2015~~2014~~ Draft General Plan Update. Additionally, the loss of archaeological resources on a regional level may not be adequately mitigable through the data recovery and collection methods specified in these regulations, as their value may also lie in cultural mores and religious beliefs of applicable groups. Therefore, the cumulative destruction of significant archaeological resources from planned construction and development projects within the region would be cumulatively significant. Additionally, past projects involving development and construction have already impacted archaeological resources within the region.

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may be located on a site that has a national or state-designated archaeological resource as defined under Section 15064.5(a) of the CEQA Guidelines. The proposed project would allow for small-scale solar energy systems and utility-scale structure-mounted solar energy facilities to be

developed on a legal lot as an accessory use to the primary use of the property without discretionary review provided that it conforms to the zoning ordinance. Ground disturbing activities that could encounter native soils may occur in areas that are archeologically sensitive without additional discretionary review. Therefore, in combination with other past, present, and foreseeable future projects, the proposed project would potentially contribute to a **cumulatively significant** impact to archaeological resources (**Impact CU-CUL-2**).

The proposed project would not contribute to cumulatively significant impacts to archaeological resources related to small-scale wind energy systems, temporary MET towers, and utility-scale ground-mounted facilities because these future projects will be subject to discretionary review and required to obtain a CUP or Minor CUP. Utility-scale structure-mounted renewable energy facilities would require less ground disturbance as compared to ground-mounted facilities. As part of the discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to archaeological resources, as necessary. Additionally, prior to the issuance of any grading permit, if deemed necessary through the future project-specific CEQA process, applicants shall provide written evidence to the County that an archaeologist has been retained to observe ground-disturbing activities greater than 6 feet in depth and salvage and catalogue archaeological resources as necessary. Utility-scale structure-mounted wind energy facilities would be unlikely to adversely affect archaeological resources through ground-disturbing activities. Therefore, small-scale wind energy systems, temporary MET towers, utility-scale ground-mounted facilities, and utility-scale structure-mounted wind energy facilities developed under the proposed project **would not contribute to a cumulatively significant** impact.

Criterion C: Impact on a Unique Paleontological Resource or Geologic Feature

Projects located in the Los Angeles region may result in a cumulative impact associated with the loss of paleontological resources similar to that of archeological resources. Cumulative projects would have the potential to result in adverse impacts to paleontological resources from development activities. These projects are regulated by federal, state, and local regulations, protecting paleontological resources, including policies found in the 2015~~2014~~ Draft General Plan Update. Additionally, the loss of paleontological resources on a regional level may not be adequately mitigable through the data recovery and collection methods specified in these regulations. Therefore, the cumulative destruction of significant paleontological resources from planned construction and development projects within the region would be cumulatively significant. Additionally, past projects involving development and construction have already impacted paleontological resources within the region.

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may result in impacts to paleontological resources. The proposed project would allow for small-

scale solar energy systems and utility-scale structure-mounted solar energy facilities to be developed on a legal lot as an accessory use to the primary use of the property without discretionary review provided that it conforms to the zoning ordinance. Ground disturbing activities may occur in areas that are paleontologically sensitive or have intact native soils without additional discretionary review. Therefore, in combination with other past, present, and foreseeable future projects, the proposed project would potentially contribute to a **cumulatively significant** impact to paleontological resources (**Impact CU-CUL-3**).

The proposed project would not contribute to cumulatively significant impacts to paleontological resources related to small-scale wind energy systems, temporary MET towers and utility-scale structure-mounted wind energy facilities because these projects will be subject to discretionary review and required to obtain a Minor CUP or CUP. As part of the discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to paleontological resources, as necessary. Additionally, prior to the issuance of any grading permit, if deemed necessary through the future project-specific CEQA process, applicants shall provide written evidence to the County that a paleontologist has been retained to observe grading activities greater than 6 feet in depth and salvage and catalogue paleontological resources as necessary. Therefore, utility-scale structure-mounted renewable energy facilities developed under the proposed project **would not contribute to a cumulatively significant** impact.

Criterion D: Disturbance of Human Remains

Projects located in the Los Angeles region may result in a cumulative impact associated with human remains due to grading, excavation, or other ground-disturbing activities. Projects that may result in adverse impacts to human remains from development activities include the 2015~~2014~~ Draft General Plan Update, the ~~proposed~~ 2015 Antelope Valley Area Plan Update, or the development of land uses as designated under surrounding jurisdictions general plans. Cumulative projects would be required to comply with the Native American Graves Protection Act (NAGPRA), Section 5097.9–5097.991 of the California Public Resources Code, Cal NAGPRA, and Section 7050.5 of the California Health and Safety Code, if human remains were encountered during project development. On a regional level, the disturbance of human remains that are also considered archaeological resources may not be adequately mitigable through methods specified in these regulations, as their value may also lie in cultural mores and religion beliefs of applicable groups. Therefore, the cumulative disturbance of human remains by construction and development within the region would be considered a cumulatively significant impact. Additionally, past projects involving development and construction have already impacted human remains within the region.

Future small-scale solar energy systems and utility-scale structure-mounted solar energy facility would have the potential to result in impacts to human remains. The proposed project would allow for small-scale solar energy systems and utility-scale structure-mounted solar energy facility to be developed on a legal lot as an accessory use to the primary use of the property without discretionary review provided that it conforms to the zoning ordinance. Ground-disturbing activities that involve impacts to human remains may occur without additional discretionary review. Therefore, in combination with other past, present, and foreseeable future projects, the proposed project would potentially contribute to a cumulatively significant impact to human remains (**Impact CU-CUL-~~3~~4**).

The proposed project would not contribute to cumulatively significant impacts to human remains related to small-scale wind energy systems, temporary MET towers, utility-scale ground-mounted solar and wind energy facilities, and utility-scale structure-mounted wind energy facilities because these projects will be subject to discretionary review and required to obtain a Minor CUP or CUP. As part of the discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to human remains, as necessary. Future proposed projects would be required to comply with the California NAGPA, which requires special handling of human remains. Additionally, future projects would be subject to Section 15064.5e of the CEQA Guidelines and Section 5097.98 of the California Public Resources Code in the unlikely event human remains are encountered during construction activities. Utility-scale structure-mounted wind energy facilities would not adversely affect human remains through ground-disturbing activities. Therefore, small-scale wind energy systems, temporary MET towers and utility-scale structure-mounted wind energy facilities developed under the proposed project **would not contribute to a cumulatively significant** impact.

5.1.6 Geology and Soils

Cumulative impacts to geology or soils may result from exposure to seismic risk, geologic hazards, or creation of unstable geologic conditions. The geographic scope for this cumulative analysis is the immediate area of geologic constraint, except in the case of regional geologic impacts such as earthquakes. Projects located within the County and surrounding jurisdictions are subject to the California Building Code, which includes provisions for structures located in seismic zones. The California Building Code also includes structural engineering standards to ensure structures can withstand changes in the integrity of the soil. Additionally, as required by Section J110.8.1–J110.8.3 of the Grading Code, applicants for any active grading project occurring during the rainy season (October 15–April 15) must prepare an erosion and sediment control plan (ESCP). The ESCPs must show the specific best management practices (BMPs) that would be put in place on the project site to reduce erosion and stormwater pollution. The BMPs are required to be installed on the site on or before October 15. ESCPs are required to be revised

annually or as required by the Building Official to reflect current conditions of a site. For grading projects with a disturbed area of 1 or more acres, the required state stormwater pollution prevention plan (SWPPP) may be used for fulfilling the County's ESCP requirements. As with an ESCP, a grading permit cannot be issued until the SWPPP has been submitted and approved by the Building Official (L.A. County Code §§ J110.8.2 and J110.8.3; County DPW 2014a). The County Low Impact Development (LID) Ordinance would require that future projects manage storm runoff during construction and operation. Future projects would also be subject to compliance with the AQMD's Rule 403 which requires fugitive dust sources to implement best available control technology. Within the County, projects are subject to the County Building Code, County Grading Code, LID Ordinance, and Rule 403 as described in Section 4.6 of this EIR. Other jurisdictions have policies and guidelines to reduce seismic risks, and cumulative projects in these areas would be subject to these and other applicable state and/or federal regulations.

Although existing regulations would minimize erosion caused by systems both large and small in size and would minimize the amount of ground disturbance, there is the possibility that small-scale solar energy systems and utility-scale structure-mounted solar energy systems may result in potentially significant impacts relative to causing substantial erosion or loss of soil. Future small-scale ground-mounted wind energy systems and temporary MET towers would also be subject to regulations described above and be subject to project-specific discretionary review under CEQA. However, due to the potential for small-scale ground-mounted wind energy systems and temporary MET towers to result in erosion and/or loss of topsoil, impacts are considered potentially significant. Due to the large amounts of ground disturbance that have the potential to result from utility-scale ground-mounted renewable energy facilities and due to the unknown, speculative nature of future project-specific mitigation measures, impacts relative to substantial erosion and topsoil loss would be potentially significant. As such, the proposed project, in combination with other cumulative projects, would contribute to a **potentially significant cumulative** impact related to soil erosion or the loss of topsoil (**Impact CU-GEO-1**).

5.1.7 Greenhouse Gas Emissions

Criterion A: Generation of GHG Emissions

Global climate change, by definition, is cumulative as it is the result of combined worldwide contributions of greenhouse gases (GHGs) to the atmosphere over many years. Therefore, impacts associated with the proposed project discussed above in Section 4.7.4 of this EIR also serve as the proposed project's cumulative impact analysis.

Due to the brief construction time period and minimal operational activities associated with the installation of small-scale solar energy systems and utility-scale structure-mounted solar energy

facilities, and because traffic generated by the construction and operation of these facilities would be relatively minor as they would be limited to the delivery of component parts and trips associated with equipment installers, GHG impacts as a result of construction emissions would be less than significant and therefore would not be considered cumulatively significant.

Similar to small-scale solar energy systems and utility-scale structure-mounted solar energy facilities, small-scale wind energy systems and temporary MET Towers would result in less than significant impacts related to GHG emissions due to the brief construction time period and minimal operational activities associated with the installation of small-scale solar energy systems, and because traffic generated by the construction and operation of these facilities would be relatively minor, GHG impacts as a result of construction emissions and therefore would not be considered cumulatively significant. Additionally, the County's discretionary review process would require all future small-scale wind energy systems and temporary MET towers to be evaluated under CEQA at a project-specific level at the time permits are processed, and to implement measures to minimize impacts related to GHG emissions, as necessary.

Construction activities for utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities could generate a significant amount of traffic on project-area roadways. The construction of these facilities may involve grading, trenching, construction, paving, and architectural coating phases. GHG emissions would be generated by maintenance vehicles traveling to future utility-scale ground-mounted and structure-mounted facilities. However, upon an assessment of three sample projects as described in Section 4.7.4, utility-scale renewable energy facilities are not expected to exceed the SCAQMD or AVAQMD screening thresholds during the construction phase. GHG emissions generated during operation would be limited to maintenance vehicles traveling to future utility-scale ground-mounted and structure-mounted facilities. This amount of traffic would be minimal and would not result in any significant amount of greenhouse gas generation. Additionally, the overall net benefit of GHG reduction during the operation of utility-scale renewable energy facilities would outweigh the temporary construction emissions and minor operational emissions. Therefore, the proposed project's impacts, in combination with other cumulative projects, would **not be considered cumulatively significant**.

Criterion B: Conflict with Applicable GHG Plans, Policies, or Regulations

As described in Section 4.7.4, small-scale energy systems and utility-scale structure-mounted solar energy facilities may require substantial amount of water for dust control purposes during construction. Water would be obtained from on-site wells or from a water provider or district and/or delivered to the site by truck. If water is required from a water district, approval would be required and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. The

amount of water required for dust control and annual washing during operation is not expected to be substantial. Therefore, implementation of small-scale solar systems and utility-scale structure-mounted solar facilities combined with other cumulative projects would not conflict with strategy policy WAW-2, which calls for the protection of groundwater resources. However, this analysis does not provide significance determinations because the County's Community Climate Action Plan (CCAP) is not currently an adopted plan. (The CCAP will go into effect when the General Plan Update is adopted, which is anticipated to occur in July 2015.) There are no other applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases in the County's jurisdiction.

As described in Section 4.7.4, small-scale wind energy systems would be regulated through development standards and permitting of a discretionary process. Provisions for temporary MET towers would potentially facilitate the expansion of wind energy throughout the County by allowing testing of the feasibility and optimal locations for wind turbines on properties for on-site or off-site energy use. Therefore, the proposed project would be consistent with Green Building and Energy Strategy BE-4. Future systems would be subject to the Minor CUP discretionary review permit and further CEQA review. Therefore, small-scale wind energy systems and temporary MET towers would not conflict with Water Conservation and Wastewater Strategy WAW-2. However, this analysis does not provide significance determinations because the County's CCAP is not currently an adopted plan. There are no other applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases in the County's jurisdiction.

The proposed project would regulate utility-scale ground-mounted solar and wind energy facilities and utility-scale structure-mounted wind energy facilities through development standards and permitting of a discretionary process. Therefore, the proposed project would be consistent with Green Building and Energy Strategies BE-3 and BE-4 through providing a mechanism by which wind and solar energy may be harnessed in the County, and would potentially diversify the County's electricity portfolio.

The CUP discretionary review process would require all future utility-scale ground-mounted renewable energy projects to be evaluated under CEQA and to implement measures to minimize impacts to the water supply to the greatest extent possible. Therefore, the proposed Zoning Code amendments would not directly conflict with Water Conservation and Wastewater Strategy WAW-2. However, this analysis does not provide significance determinations because the County's CCAP is not currently an adopted plan. There are no other applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases in the County's jurisdiction.

5.1.8 Hazards and Hazardous Materials

The geographic scope of cumulative impact analysis for hazardous materials varies depending on the type of resource with potential to be impacted. Geographic scope can be the entire area within which the resource has the potential to occur. For the purpose of this EIR, the geographic scope for the cumulative analysis of hazardous materials includes the Los Angeles region, which encompasses the entire County, including both incorporated and unincorporated areas, as well as surrounding counties and public agency lands.

Criterion A: Transport and Use of Hazardous Materials and Criterion B: Release of Hazardous Materials

Projects located in the Los Angeles region may result in a cumulative impact associated with hazards to the public or the environment involving the use, storage, disposal, or transport of hazardous materials. Cumulative projects that would have the potential to result in adverse impacts to hazards from development activities include the 2015~~2014~~ Draft General Plan Update, the ~~proposed~~ 2015 Antelope Valley Area Plan Update, and the development of land uses as designated under surrounding jurisdictions general plans. However, similar to the proposed project, cumulative projects would be required to comply with regulations applicable to the use, disposal, and transportation of hazardous materials, including Resource Conservation and Recovery Act (RCRA), California Environmental Response, Compensation, and Liability Act (CERCLA), the Hazardous Materials Transportation Act, the International Fire Code, and California Code of Regulations Title 22 and Title 27.

Implementation of various cumulative projects, such as private projects, would increase the likelihood of hazards to the public or the environment through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Generally, as the population increases, services and industries, such as dry cleaners and industrial manufacturing, which commonly store, use and dispose of hazardous materials, would increase to service the expanding population. As the services and industries that use hazardous materials increase, the risk of accidental release associated with these services and industries would also increase. Cumulative projects would be subject to regulations regarding the handling of hazardous materials. These regulations would reduce the risks associated with an accidental release of hazardous materials from cumulative projects.

Small-scale solar energy systems would be required to comply with regulations applicable to the use, disposal, and transportation of hazardous materials, including RCRA, CERCLA, the Hazardous Materials Transportation Act, International Fire Code, California Code of Regulations Title 22 and Title 27, and the County Fire Code. Additionally, such systems would be required to comply with the Chemical Accident Prevention Provision, Robert T. Stafford Disaster

Relief and Emergency Assistance Act, California Health and Safety Code, California Code of Regulations Title 23, Aboveground Petroleum Storage Act, the California Accidental Release Prevention program (CalARP), Emergency Response to Hazardous Materials Incidents, and the California Emergency Services Act, which would reduce the risks associated with accidental release of hazardous materials and provide planning for prompt and effective cleanup in the event of an accidental release. Therefore, in combination with other past, present, and foreseeable future projects, the proposed project would not contribute to a cumulatively significant impact to the use, disposal, and transportation or accidental release of hazardous materials.

Small-scale wind energy systems and temporary MET towers would be subject to discretionary review and required to obtain a Minor CUP. As part of the discretionary review process, all future projects would be evaluated under CEQA and comply with regulations applicable to the use, disposal, and transportation of hazardous materials, including RCRA, CERCLA, the Hazardous Materials Transportation Act, International Fire Code, and CCR Title 22 and Title 27. Additionally, such systems would be required to comply with the Chemical Accident Prevention Provision, Robert T. Stafford Disaster Relief and Emergency Assistance Act, California Health and Safety Code, California Code of Regulations Title 23, Aboveground Petroleum Storage Act, CalARP, Emergency Response to Hazardous Materials Incidents, and the California Emergency Services Act, which would reduce the risks associated with accidental release of hazardous materials and provide planning for prompt and effective cleanup in the event of an accidental release. Environmental Design Consideration 22.52.1640(f), as indicated in Table 3-2 of this EIR, states that all equipment and facilities associated with temporary MET towers shall be maintained in an operational condition that poses no potential safety hazard. Therefore, in combination with other past, present, and foreseeable future projects, the proposed project would not contribute to a cumulatively significant impact to the use, disposal, and transportation or accidental release of hazardous materials.

Utility-scale ground-mounted renewable energy facilities would be subject to discretionary review and required to obtain a CUP. As part of the discretionary review process, all future projects would be evaluated under CEQA and required to comply with regulations applicable to the use, disposal, and transportation of hazardous materials, including RCRA, CERCLA, the Hazardous Materials Transportation Act, Consolidated Fire Code, California Code of Regulations Title 22 (which regulates the generation, transportation, treatment, storage and disposal of hazardous waste), and California Code of Regulations Title 27 (which regulates the treatment, storage and disposal of solid wastes). Additionally, such systems would be required to comply with the Chemical Accident Prevention Provision, Robert T. Stafford Disaster Relief and Emergency Assistance Act, California Health and Safety Code, California Code of Regulations Title 23, Aboveground Petroleum Storage Act, CalARP, Emergency Response to Hazardous Materials Incidents, and the California Emergency Services Act, which would reduce the risks

associated with accidental release of hazardous materials and provide planning for prompt and effective cleanup in the event of an accidental release. Therefore, the proposed project would **not contribute to a cumulatively significant** impact to the use, disposal, and transportation or accidental release of hazardous materials.

Criterion C: Hazardous Materials within 1/4 Mile of Sensitive Land Uses and Criterion D: Project on Listed Hazardous Materials Site

Projects in the region would increase infrastructure and services in the area to accommodate regional population growth. As population increases in the region, public services, such as schools, and industries and services that use hazardous materials, such as manufacturing and dry cleaners, would concurrently increase. Proposed schools could potentially be located in the vicinity of facilities that emit hazardous emissions or handle hazardous or acutely hazardous materials, while existing schools could be affected by new or expanded facilities that use hazardous waste. However, cumulative projects would be subject to local, state, and federal requirements.

It is reasonable to assume that surrounding jurisdictions have multiple existing hazardous materials sites, pursuant to California Government Code, Section 65962.5, similar to the County. Therefore, implementation of cumulative projects may result in the location of a project on a site with existing hazardous materials issues, which would result in a potentially significant impact to the public or environment. However, most cumulative projects would be required to undergo environmental review, in addition to abiding by applicable regulations that prevent risks associated with existing hazardous materials sites, such as CERCLA, Preliminary Remediation Goals, Cortese List, and California Human Health Screening Level.

Small-scale solar energy systems and utility-scale structure-mounted solar energy systems would be required to comply with applicable federal, state, and local regulations, as listed above, pertaining to hazardous wastes which would ensure that risks associated with hazardous emissions and schools would remain less than significant. Therefore, the proposed project would not contribute to a cumulatively significant impact to hazards within 0.25 mile of schools.

Small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may be located on a project site with existing hazardous materials issues. However, these systems would be required to comply with applicable federal, state, and local regulations and County policies related to existing on-site hazardous materials contamination. Additionally, if a property site is on the list of hazardous materials sites, pursuant to Government Code Section 65962.5, the County would not issue a building permit until any significant hazard has been referred to and remediated to the satisfaction of the California Department of Toxic Substances Control (DTSC), Certified Unified Program Agency (CUPA), and/or Department of Public Health (DPH). Future small-scale solar

energy systems and utility-scale structure-mounted solar energy facilities are required to obtain electrical and/or building permits because, at a minimum, all electrical work for solar energy systems require an electrical permit. Therefore, because remediation of the site would occur prior to issuance of an electrical or building permit, the proposed project would not contribute to a cumulatively significant impact to existing hazardous materials site.

Small-scale wind energy systems and temporary MET towers would result in less than significant impacts related to hazards to schools and hazardous materials sites. Furthermore, these systems and facilities would require discretionary review permits, at which time each proposed project would be evaluated under CEQA on a project-specific level. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and would be required to implement measures to minimize impacts to sensitive land uses that are within one-quarter mile of facilities handling hazardous materials. Future small-scale wind energy systems and/or temporary MET towers may be located on a site listed in the state Hazardous Waste and Substances sites list compiled pursuant to Government Code Section 65962.5. However, a project would not create significant hazard to the public or the environment because if a property is on the list, the County would not issue a Minor CUP until any significant hazard has been referred to and remediated to the satisfaction of the Department of Environmental Health. Therefore, because remediation of the site would occur prior to issuance of a Minor CUP, a project would not create a significant hazard to the public or the environment and would not contribute to a cumulatively significant impact.

Utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities would be subject to discretionary review and required to obtain a Minor CUP or CUP. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to comply with applicable federal, state, and local regulations pertaining to hazardous wastes which would ensure that risks associated with hazardous emissions and schools would remain less than significant and implement measures to minimize impacts to sensitive land uses that are within one-quarter mile of facilities handling hazardous materials. Therefore, the proposed project would not contribute to a cumulatively significant impact to hazards within one-quarter mile to schools. Additionally, if a property site is on the list of hazardous materials sites, pursuant to Government Code Section 65962.5, the County would not issue a building permit until any significant hazard has been referred to and remediated to the satisfaction of the DTSC, CUPA, and/or DPH. Therefore, the proposed project would **not contribute to a cumulatively significant** impact to existing hazardous materials site.

Criterion E: Airport Land Use Plan and Criterion F: Private Airstrip

Cumulatively projects could potentially result in incompatible land uses within the vicinity of a public or private airport. This could result in a potentially significant safety hazard for people residing

or working in these project areas. However, projects would be subject to safety regulations, such as airport land use compatibility plans (ALUCPs), Federal Aviation Administration (FAA) standards, Department of Defense (DOD) standards, and the State Aeronautics Act, which would reduce the potential for safety hazards to below a level of significance.

Small-scale solar energy systems and utility-scale structure mounted solar energy facilities could be located within the vicinity of a public or private airport. The proposed project would be required to comply with applicable safety regulations, such as ALUCPs, FAA standards, DOD standards, and the State Aeronautics Act. Although future systems and facilities would be required to comply with all applicable federal, state, and local regulations, glare produced from small-scale solar energy systems and utility-scale structure-mounted solar energy facilities may contribute to a **cumulatively significant** impact related to ocular obstruction (**Impact CU-HAZ-1**).

Furthermore, small-scale wind energy systems and temporary MET ~~Towers~~ towers would be subject to discretionary review and required to obtain a Minor CUP. As part of the discretionary review process, all future projects would be evaluated under CEQA and required to comply with applicable safety regulations, such as ALUCPs, FAA standards, DOD standards, and the State Aeronautics Act. Therefore, the proposed project would not contribute to cumulative significant impact to public or private airports.

Utility-scale renewable energy facilities and utility-scale structure-mounted wind energy facilities would be subject to discretionary review and required to obtain a Minor CUP or CUP. As part of the discretionary review process, all future projects would be evaluated under CEQA and required to comply with applicable safety regulations, such as ALUCPs, FAA standards, DOD standards, and the State Aeronautics Act. Therefore, the proposed project would not contribute to cumulative significant impact to public or private airports.

Criterion G: Interference with Adopted Emergency Plan

Cumulatively, projects such as development consistent with surrounding jurisdictions' general plans, energy projects, and buildout of the Project Area allowed by the 2015~~2014~~ Draft General Plan Update and the ~~proposed~~ 2015 Antelope Valley Area Plan Update, would have the potential to impair existing emergency and evacuation plans. This could occur from any of the following: (1) an increase in population that is induced from cumulative projects which are unaccounted for in emergency plans; (2) an increase in population that emergency response teams are unable to service adequately in the event of a disaster; (3) evacuation route impairment if multiple development projects concurrently block multiple evacuation or access roads. However, cumulative projects would be required to comply with applicable emergency response

and evacuation policies outlined in regulations such as the Federal Response Plan, the California Emergency Services Act, and local fire codes.

As described in Section 4.8.4, the proposed project would be consistent with applicable emergency response plans or emergency evacuation plans. Additionally, cumulative projects would be required to comply with applicable emergency response and evacuation policies outlined in regulations such as the Federal Response Plan, the California Emergency Services Act, and local fire codes. Therefore, due to existing regulations, the proposed project would not contribute to a cumulatively significant impact to emergency response and evacuation plans.

As described in Section 4.8.4 of this EIR, small-scale solar energy systems and utility-scale structure-mounted solar energy facilities are not anticipated to temporarily interrupt access to a site or surrounding area. These types of systems and facilities would be located on existing infrastructure or serve onsite land uses as an accessory use. Construction would be minimal and road closures are not anticipated. For future systems or facilities that would require discretionary permits and project-specific CEQA review, a Traffic Control Plan and construction notification procedures may be required in instances when a road closure is proposed. Therefore, the proposed project would not contribute to a cumulatively significant impact to existing hazardous materials site.

As described in Section 4.8.4 of this EIR, small-scale wind energy systems and temporary MET ~~Towers~~ towers would be consistent with applicable emergency response plans or emergency evacuation plans. Small-scale wind energy systems and temporary MET Towers would be subject to discretionary review and required to obtain a Minor CUP. As part of the discretionary review process, all future projects would be evaluated under CEQA and required to comply with applicable emergency response and evacuation policies outlined in regulations such as the Federal Response Plan, the California Emergency Services Act, and local fire codes. Future small-scale wind energy systems and temporary MET towers would not result in an increase in population that an emergency response team is unable to service because the systems serve land uses as an accessory use or as temporary testing for a future use subject to discretionary permit.

Although future small-scale wind energy systems and temporary MET towers includes proposed tall structures that could potentially affect the ability of emergency air support services to carry out missions associated with an emergency response, future small-scale wind energy systems and temporary MET towers would be subject to discretionary review and the County reviews development proposals for consistency with the following plans/regulations: (1) the Statewide Standardized Emergency Management System; (2) the Oil Spill Contingency Element of the Operational Area Emergency Plan (OAEP); (3) the Emergency Water Contingencies Annex and Energy Shortage Response Plan of the OAEP; (4) and the Dam

Evacuation Plan. This process ensures that potential issues do not result in significant impacts or impairments to existing emergency response and evacuation plans.

Installation/construction of future small-scale wind energy systems and temporary MET towers could potentially temporarily interrupt access to a site or surrounding area. However, through the discretionary review process and CEQA, a Traffic Control Plan and construction notification procedures would be implemented, when necessary. Therefore, due to the required compliance with the regulations previously mentioned, required discretionary review process and applicable Traffic Control Plan, the proposed project would not contribute to a cumulatively significant impact to emergency response and evacuation plans.

Utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities would be subject to discretionary review and required to obtain a Minor CUP or CUP. As part of the discretionary review process, all future projects would be evaluated under CEQA and required to comply with applicable emergency response and evacuation policies outlined in regulations such as the Federal Response Plan, the California Emergency Services Act, and local fire codes. Through the discretionary review process, an emergency evacuation plan to handle the temporary increase in employees on a site during construction may also be required. Installation/construction of utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities would potentially temporarily interrupt access to a site or surrounding area. However, through the discretionary review process and CEQA, a Traffic Control Plan and construction notification procedures would be implemented when a road closure is required or when necessary. Therefore, due to the required compliance with the regulations previously mentioned, required discretionary review process and CEQA, applicable Traffic Control Plan and construction notification procedures, the proposed project would **not contribute to a cumulatively significant** impact to emergency response and evacuation plans.

Criterion H: Risk of Loss or Injury Involving Fires and Criterion I: Dangerous Fire Hazard

Some cumulative projects would occur in areas which would expose people and structures to a potentially significant loss of life and property. Growth occurring in the Los Angeles region, implemented under various cumulative projects, would likely place people and/or property within danger of wildland fires, due to the widespread risk across the region. Although regulations exist to reduce hazards associated with wildland fires, they would not reduce the risk to below a level of significance. As described in Section 4.8.4, construction activities associated with future structure-mounted energy systems and facilities that may result in ignition sources could include chainsaws, wood chippers, grinders, and torches that could create sparks, be a source of heat, or leak flammable materials; compost piles; and other human activities and waste that would increase the possibility of fire. However, these construction activities and equipment would be very limited for small-scale solar systems if required at all. The potential

risk for fire ignition and spread associated with construction and operations and maintenance can be managed and pre-planned so that the potential for ignition is minimized. Furthermore, future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would be required to comply with County polies and regulations (California Natural Disaster Assistance Act (NDAA), County Vegetation and Other Flammable Materials Ordinance, fire protection plans (FPPs), and County Fire Code). However, since these systems and facilities would not be subject to discretionary review, the County could not be certain that all potential impacts related to fire hazards from these systems and facilities would be avoided. Therefore, the proposed project in combination with other past, present and foreseeable future projects, would potentially contribute to a cumulatively significant impact to fire hazards.

As discussed in Section 4.8.4 of this EIR, construction activities associated with small-scale wind energy systems and temporary MET towers, utility-scale ground mounted renewable energy facilities, and utility-scale structure-mounted wind energy facilities that may result in ignition sources would include vegetation clearing and piling, ground disturbance, site preparation, soil disturbances, concrete pouring and preparation, and construction and refueling. These construction activities may involve the presence of vehicles, heavy equipment, heat-generating equipment and activities, sparks from various sources, and potentially discarded cigarettes, among others, as well as use of fuels and combustible materials during construction and infrastructure installation. Operation of these systems and facilities would introduce potential ignition sources that do not currently exist on the site, such as solar panels, trackers, transformers, capacitors, electric transmission lines, turbine blade failure, or pole failure. Operation of future systems, facilities, and temporary MET towers may result in vegetation ignitions from equipment failure (e.g., turbine blade, braking, oil heating, lightning, nacelle, transformers, circuit breakers), transmission line arcing, and pole failure, among others.

Potential fire risks associated with wind turbines may stem from improperly installed electrical equipment (e.g., technical defects or components in the power electronics, failure of power switches, failure of control electronics, high electrical resistance caused by insufficient electrical protection, faulty design of equipment, non-pole-mounted disconnection switches, inadequate surge protection, or inadequate grounding due to incorrect design or improper installation). Fire risks are also associated with transformers.

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale) and temporary MET towers would require a Minor CUP discretionary process and utility-scale ground-mounted renewable energy facilities would require a CUP discretionary process, both of which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to implement feasible mitigation measures. Through the discretionary review process and CEQA, Traffic Control Plans may be required to be

prepared, when necessary. Pre-planning and personnel fire awareness and suppression training would be implemented and future systems and facilities would be subject to County policies and regulations described above. However, as there is no guarantee that future project-specific-level environmental review with mitigation measures would fully reduce potential impacts related to fire hazards to a level below significance, future small-scale wind energy systems and temporary MET towers, may result in a cumulatively significant impact related to fire hazards when combined with other past, present, and foreseeable future projects (**Impact CU-HAZ-2**).

5.1.9 Hydrology and Water Quality

Criterion A: Water Quality Standards and Requirements and Criterion K: Water Quality Degradation

Construction and development associated with cumulative regional land use projects, such as those identified in adjacent city and county general plans and regional transportation plans, would contribute both point and non-point source pollutants to downstream receiving waters that have the potential to violate water quality standards. However, development and construction proposed under most cumulative projects would be subject to regulations that require compliance with water quality standards, including the Clean Water Act, Porter-Cologne Water Quality Control Act, National Pollutant Discharge Elimination System (NPDES), County Grading Code, County LID Ordinance, applicable MS4 permits, applicable basin plans, and local regulations. Therefore, the proposed project in combination with cumulative projects would **not result in a cumulatively significant** impact relative to water quality.

Criterion B: Groundwater Supplies and Recharge

Groundwater basins typically serve localized areas; therefore, any cumulative impacts would generally be localized. The area of cumulative analysis for groundwater supplies and recharge includes the groundwater dependent areas of the unincorporated County and the immediately adjacent jurisdictional areas that share groundwater basins with County areas. Installation of solar energy systems on existing structures would not involve substantial water use and any hosing off of the systems would result in runoff water entering existing storm drain system or allow the water to infiltrate into the ground. Small-scale ground-mounted solar energy structures may require additional water for dust control during construction. In the event that on-site wells are used to obtain water for dust control activities, future projects in combination with cumulative projects may use groundwater and would potentially affect groundwater supply.

The discretionary review process would require all future small-scale wind energy systems, temporary MET towers, and utility-scale ground-mounted renewable energy facilities to be

evaluated under CEQA and to implement measures to minimize impacts to groundwater, as necessary. Additionally, such projects would be required to comply with the LID Ordinance and to meet the MS4 permit requirements of the applicable Regional Water Quality Control Board (RWQCB)—Los Angeles, Lahontan, or Central Valley. Due to these existing regulations, future systems, facilities, and temporary MET towers would be required to provide for the replenishment of groundwater supplies that have a designated beneficial use in the applicable Basin Plan. However, due to the potential for substantial dust control efforts to be required and due to the potential for future projects along with cumulative projects to result in increased impervious surfaces on project sites, impacts related to groundwater supplies and recharge could be cumulatively significant.

Maintenance of utility-scale structure-mounted wind energy facilities would involve hosing off of the facilities and any runoff water would enter existing storm drain system or allow the water to infiltrate into the ground. Future utility-scale structure-mounted wind energy facilities would also be subject to a discretionary review process and additional CEQA review. Additionally, such projects would be required to comply with the LID Ordinance and to meet the MS4 permit requirements of the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. However, due to the potential for cumulative projects to result in increased impervious surfaces and water usage from on-site wells for dust control activities, the proposed projects in combination with cumulative projects could result in **cumulatively significant** impact related to groundwater supplies and recharge (**Impact CU-HYD-1**).

Criterion C: Erosion/Siltation

Cumulative projects may result in multiple developments that would potentially alter existing drainage patterns in a manner that would result in substantial erosion or siltation. Cumulative projects such as regional transportation projects and development consistent with general plans would be expected to increase impervious surfaces within the region and, therefore, increase the potential for runoff to occur that would lead to erosion and siltation impacts. While cumulative projects would be expected to follow regulations, such as NPDES or others as applicable, when combined, they would still have the potential to result in a significant cumulative erosion and siltation impact. However, the proposed project would not result in significant impacts related to erosion or siltation as described in Section 4.9; therefore the project would **not contribute to a cumulatively significant** impact.

Criterion D: Flooding

Cumulative projects would result in land uses and development that would convert permeable surfaces to impermeable surfaces, such as through the construction of buildings, parking lots, and roadways. New development would have the potential to alter existing drainage patterns, increase

the amount of runoff and potentially increase flooding in the Los Angeles region. Many cumulative projects in the County and surrounding jurisdictions would be subject to regulations that reduce the potential for existing drainages to be altered in a way that would result in flooding on or off site. Therefore, with regulations in place, the proposed project in combination with cumulative projects would **not result in a cumulatively significant** impact.

Criterion E: Standing Water

Cumulative projects would result in land uses and development that could result in standing water, such as through the development of wetponds or detention basins. However, the proposed project would not result in impacts related to standing water and therefore would **not contribute to a cumulatively significant** impact.

Criterion F: Stormwater Drainage

Many of the cumulative projects are proposed to accommodate the expected population growth within the region. Impermeable surfaces, constructed under implementation of these cumulative projects, would have the potential to contribute substantial quantities of runoff that would exceed the capacity of existing stormwater drainage systems, while contributing to substantial additional sources of polluted runoff. However, a cumulative project that would exceed the capacity of a stormwater system would be unlikely to contribute to a cumulative impact because the area of exposure would be limited to the immediate surrounding area. Additionally, the majority of cumulative projects would be subject to CEQA and/or National Environmental Policy Act (NEPA) review, and local regulations that require development to construct or retrofit stormwater drainage systems so that they would not cause flooding. **No cumulatively significant** impacts associated with the proposed project would occur.

Criterion G: NPDES Violation

Cumulative projects would involve site clearance, which could create or contribute to runoff. However, projects would be required to comply with the NPDES program and would therefore be required to meet MS4 permit requirements for the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. For projects with a disturbed area greater than 1 acre, compliance with the Construction General Permit for stormwater discharges would be required (Order No. 2012-0006-DWQ; NPDES No. CAS000002). Under this permit, discharges from construction sites that are one or more acres in size require obtaining an individual NPDES permit or coverage by the Construction General Permit. Obtaining coverage by the Construction General Permit involves filing a Notice of Intent with the State Water Resources Control Board and developing and implementing a SWPPP. Therefore, the proposed project would **not cumulatively contribute** to a significant impact.

Criterion H: Low Impact Development Ordinance

Future renewable energy projects developed pursuant to the proposed ordinance are required to comply with the requirements of the County's LID Ordinance, as are cumulative projects countywide. Therefore, implementation of the proposed ordinance would not conflict with the County's LID Ordinance and **no cumulative impact** would occur.

Criterion I: Areas of Special Biological Significance

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. As stated in Section 4.9 of this EIR, all future projects would be required to be designed, constructed, and operated in compliance with the County's drainage and hydrology requirements, which include the County Grading Code, the County LID Ordinance, MS4 permits, and the NPDES program. Compliance with these requirements would minimize both the runoff from future project sites and the pollutants in any runoff that might occur. Since the proposed project and cumulative projects would adhere to the County's drainage and hydrology requirements, and would not result in a substantial amount of nonpoint sources of pollutants, impacts would be **not be cumulatively significant.**

Criterion J: Septic Tanks

If a future renewable energy system project or cumulative project proposes to discharge domestic waste to an on-site wastewater treatment system (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." Future utility-scale ground-mounted facilities and any associated OWTS would be further evaluated under CEQA at the project level as part of the County's CUP discretionary review process. Therefore, the proposed project would **not contribute to cumulatively significant** impact.

Criterion K: Water Quality Degradation

Wash water as a result of construction, operation and maintenance activities of the proposed project would not significantly threaten water quality, as runoff created during the washing process would be minimal and consist only of water and any debris or dust removed from the equipment by the water. Runoff from cleared sites during construction and/or operation of ground-mounted renewable energy systems and facilities could introduce increased sediment levels to runoff from the site. However, compliance with the County's drainage and hydrology requirements, which include the County Grading Code, the County LID Ordinance, MS4 permits, and the NPDES program would minimize runoff. Therefore, since the proposed project in combination with cumulative projects would be required to comply with the County's drainage and hydrology requirements or respective jurisdictions drainage and hydrology requirements, the proposed project in combination with cumulative projects would not contribute to cumulative impacts related to water quality.

Criterion L: Housing within 100-Year Flood Area

Projects that have the potential to place housing within a 100-year flood hazard area would include buildout of the project area allowed by the 2015~~2014~~ Draft General Plan Update and the ~~proposed~~ 2015 Antelope Valley Area Plan Update as well as the development of land uses as designated under surrounding jurisdictions general plans. However, the proposed project along with most cumulative projects in California would be required to conform to applicable regulations, such as National Flood Insurance Act, National Flood Insurance Reform Act, and Cobey-Alquist Floodplain Management Act, which prohibit housing from being placed in floodways. Therefore, due to existing regulations, **no cumulative impact** would occur.

Criterion M: Structures Impeding Floods

Cumulative projects included in this analysis have the potential to place residential land uses, commercial land uses, industrial land uses, and various other land uses, with the potential to contain structures, within a 100-year flood plain. Placing structures within a 100-year flood plain would impede or redirect flood flows, thereby causing a significant impact. However, it is expected that most cumulative projects in California would be required to comply with applicable regulations that would prevent the construction of structures in floodways, such as the National Flood Insurance Act, National Flood Insurance Reform Act, Cobey-Alquist Floodplain Management. Therefore, it is expected that through regulation, **no cumulative impact** would occur.

Criterion N: Dam Inundation and Flood Hazards

It is reasonably foreseeable that cumulative projects would place housing or structures within dam inundation areas, thereby increasing the potential for a significant risk of loss, injury, or death involving flooding. However, multiple regulations exist, such as the National Flood Insurance Act, National Flood Insurance Reform Act, Cobey-Alquist Floodplain Management Act, and local regulations, that would be expected to mitigate any potential impacts to below a level of significance. **No cumulative impact** would occur.

Criterion O: Seiche, Tsunami, Mudflow Hazards

Cumulative projects on the coast have the potential to expose people or structures to loss, injury, or death involving inundation of a tsunami, due to the inherent risk involved with coastal development. Additionally, cumulative projects would be located in the vicinity of natural water bodies that have the potential to be affected by a seiche, thereby exposing people and structures to flooding from this natural disaster. Mudflows would also potentially affect cumulative projects, especially in surrounding jurisdictions that have been affected by the extreme wildfire events in the recent past. However, the majority of cumulative projects would be subject to CEQA and/or NEPA review, in addition to compliance with applicable regulations such as the National Flood Insurance Act, National Flood Insurance Reform Act, Cobey-Alquist Floodplain Management Act, and local regulations, and impacts would be reduced to a level below significant. **No cumulative impact** would occur.

5.1.10 Land Use

Criterion A: Physically Dividing an Established Community

Cumulative projects includes buildout of the Project Area allowed by the 2015~~2014~~ Draft General Plan Update and the ~~proposed~~ 2015 Antelope Valley Area Plan Update as well as the development of land uses as designated under surrounding jurisdictions general plans. Cumulative projects would also include the construction of new or widened roads, airports, railroad tracks, open space areas, or other features that would have the potential to physically divide an established community. Future roadway development under the future buildout of the area allowed by the 2015~~2014~~ Draft General Plan Update and the ~~proposed~~ 2015 Antelope Valley Area Plan Update would have the potential to result in new roadways or improvements that would physically divide an established community. Utility projects in the unincorporated area may also have fragmenting effects on communities within the County. As described in Section 4.10 of this EIR, the proposed project would not include the construction of new or widened major roadways, airports, railroad tracks, open space areas, or other features that would individually have the potential to physically divide an established community. Future small-scale solar energy systems

and utility-scale structure-mounted solar energy facilities would be located in areas that have the existing structures and basic infrastructure, such as substations and transmission lines. Any upgrades to the existing transmission lines would be contained within the existing right-of-way and not physically divide an established community.

Future small-scale wind energy systems would be developed as accessory structures and temporary MET towers would be developed on a temporary basis. Improvement of access roads, if required, would not physically divide an established community, would not act as a barrier to prevent movement. Additionally, future aboveground portions of transmission lines required for small-scale wind energy systems and temporary MET towers would not act as barriers that would prevent movement. Therefore, future small-scale wind energy systems and temporary MET towers would not result in the physical division of an established community.

Future utility-scale ground-mounted facilities may require infrastructure such as access roads or transmission lines; however, the development of access roads would not act as a barrier to prevent movement and would likely be limited in size because of the low expected daily traffic. Future utility-scale structure-mounted facility would most likely be located in residential, industrial, or commercial areas that have the existing structures and basic infrastructure and thus would not physically divide an established community. Furthermore, under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale) and temporary MET towers would require a Minor CUP discretionary process and future utility-scale ground-mounted renewable energy facilities would require a CUP, both of which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to implement feasible mitigation measures to minimize impacts to land use and divisions to established communities. Based on the above discussion, the proposed project would **not contribute to a cumulatively significant** impact.

Criterion B: Inconsistency with Applicable County Plans

Cumulative projects would have the potential to result in a cumulative impact if they would, in combination, conflict with existing land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental impact. Cumulative projects in the Los Angeles region would utilize regional planning documents during planning, and the general plans of adjacent jurisdictions and counties would be consistent with the regional plans, to the extent that they are applicable. Cumulative projects in these jurisdictions would be required to comply with the applicable land use plan or they would not be approved. As described in Section 4.10, the proposed project would not result in a potentially significant impact relative to inconsistency with applicable county plans, the county zoning ordinance or applicable land use

criteria. Therefore, the proposed project in combination with cumulative projects would **not contribute to a cumulatively significant** impact.

Criterion C: Inconsistency with a County Zoning Ordinance

The proposed project involves an ordinance amending Title 22 – Planning and Zoning (Zoning Code) of the County Code. ~~The proposed Zoning Code amendments state that all provisions of the zone and any supplemental district of an individual property will apply to all development of small-scale wind and solar energy systems, temporary MET towers, and utility-scale ground-mounted and structure-mounted facilities, including all ancillary structures. Where the existing zoning or supplemental district and the proposed Zoning Code amendments provide regulations for the same item, the stricter regulation would apply.~~ The proposed Zoning Code amendments contain provisions that establish the relationship between the regulations set forth in Part 15 of the Zoning Code and the regulations of the zone or supplemental district in which a renewable energy project is located. Small-scale solar energy systems, small-scale wind energy systems, temporary MET towers, and utility-scale solar and wind energy facilities would be subject to the applicable regulations of the zone or supplemental district in which the project is located. Where Part 15 regulates the same matter as the provisions of the zone or supplemental district, the provisions of Part 15 would take precedence for small-scale projects and temporary MET towers. For utility-scale projects, the more restrictive regulation would take precedence, whether the regulation is from Part 15 or from the provisions of the applicable zone or supplemental district (with the exception of wind tower height, height for structure-mounted facilities, and perimeter fence height, which would be established by the provisions of Part 15). The proposed Zoning Code amendments also require that all accessory structures constructed for utility-scale facilities must meet the applicable development standards of the zone.

The proposed project would be required to comply with the Zoning Code and sets forth regulations that specifically determine the relationship between the Zoning Code and the provisions of Part 15. Therefore, the proposed project in combination with cumulative projects would be subject to compliance with the respective jurisdiction's zoning ordinance and thus would **not contribute to a cumulative impact**.

Criterion D: Conflict with Applicable Land Use Criteria

The proposed project would affect all land within the County's jurisdiction. As such, the proposed project would include land subject to Hillside Management criteria, SEA conformance criteria, and any other applicable land use criteria within the County. The proposed amendments to the Zoning Code include standards for existing zoning and supplemental district regulations. Additionally, all projects would need to comply with the Hillside Management and SEA conformance criteria, unless those criteria otherwise exempt a project due to size or location.

~~(which reflect Hillside Management and SEA conformance criteria), which would apply to the development of small-scale wind and solar energy systems, temporary MET towers, and utility-scale ground-mounted and structure-mounted facilities and all ancillary structures.~~ Should the Hillside Management and SEA conformance criteria require additional setbacks, height limitations, or other criteria beyond the provisions of the proposed Zoning Code amendments, the Hillside Management or SEA regulations would apply. The proposed project prohibits utility-scale ground-mounted solar and wind energy facilities in County-designated SEAs. Therefore, the proposed project in combination with cumulative projects would be required to be consistent with all applicable land use criteria and thus would **not contribute to a cumulative impact**.

5.1.11 Mineral Resources

Criterion A: Los of Availability of a Known Mineral Resource and Criterion B: Loss of Availability of a Locally Importance Mineral Resource

Cumulative impacts to mineral resources may result from the loss of a known or locally important mineral resource. The geographic scope for this cumulative analysis is the County region, which encompasses the entire County, including both incorporated and unincorporated areas, as well as surrounding counties, and public agency lands. As discussed in Section 4.11.4 of this EIR, the unincorporated areas of the County include lands with known mineral resources (MRZ-2 areas), as well as lands currently being used for oil and gas extraction. Future small-scale solar energy systems, utility-scale structure-mounted solar energy facilities, and utility-scale structure-mounted wind energy facilities would most likely be located in residential, industrial, or commercial areas that have the existing structures and thus not impacting mineral resources. Future small-scale structure-mounted wind energy systems would not require ground disturbance and therefore no impacts to mineral resources would occur. Future small-scale ground-mounted wind energy systems, temporary MET towers, and utility-scale ground mounted renewable energy facilities may require ground disturbance consisting of minor grading to level the surface for the construction of towers and concrete foundations. However, this is unlikely to occur in an MRZ-2 area because MRZ-2 areas consist of approximately 2% of the area of the unincorporated County and oil and gas resource areas are primarily located within incorporated cities. Planned and projected growth in the unincorporated County and incorporated cities may result in a reasonably foreseeable loss of mineral resources or oil and gas resources due to the encroachment of incompatible uses that would limit future areas from being permitted for mining, oil, or gas operations. Future projects in areas with mineral, oil, or gas resources may preclude the extraction of mineral, oil, or gas resources on future project sites. However, as indicated in Section 4.11.4 of this EIR, the proposed project would not result in potentially significant impacts to mineral resources and therefore, the proposed project would **not contribute to a cumulative impact**.

5.1.12 Noise

Criterion A: Excessive Noise Levels

A cumulative noise impact would occur if construction and operation associated with cumulative regional land use projects, such as those identified in adjacent city and county general plans and regional transportation plans, combined would exceed the noise compatibility guidelines and standards of the Noise Ordinance. However, development and construction proposed under most cumulative projects would be subject to regulations that require compliance with noise standards, such as those contained in the State of California Code of Regulations and by the Office of Surface Mining. The proposed project along with cumulative projects within the County would be required to comply with the regulations in the County Noise Control Ordinance. While it would be unlikely that construction of such projects would expose workers to elevated noise levels, in the event that this were to occur, construction contractors or the entity coordinating installation of the system would need to ensure compliance with the California OSHA (Cal/OSHA) regulations for worker safety relative to noise exposure (hereafter referred to as Cal/OSHA construction worker safety standards).

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale) and temporary MET towers would require a Minor CUP discretionary process and future utility-scale ground-mounted renewable energy facilities would require a CUP, both of which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to implement feasible mitigation measures to minimize impacts to noise. However, as there is no guarantee at this time on a project-specific level that mitigation measures will reduce impacts to a level below significant, the construction ~~and operation~~ of utility-scale ground-mounted facilities~~, the operation of future small scale wind energy systems, and the operation of utility scale structure mounted wind energy facilities~~ may result in potentially significant impacts relative to generation of noise in excess of noise standards, regulations, or ordinances. Therefore, since construction equipment and construction noise ~~and future project noise operations~~ are unknown at this time and may exceed respective jurisdiction's noise ordinance as well as cause a noise disturbance to sensitive receptors, in combination with cumulative projects, the proposed project would contribute to **cumulatively significant** impact (**Impact CU-NOI-1**).

Criterion B: Excessive Ground-Bborne Vibration

A cumulative ground-borne vibration impact would occur if one or more cumulative projects would exceed the FTA and Federal Railroad Administration guidelines for ground-borne vibration and noise. However, there are no specific plans or time scales for individual construction projects.

Therefore, it is not possible to determine exact vibration levels, locations, or time periods for construction. Potential vibration impacts from construction would need to be analyzed on a case-by-case basis. Therefore, cumulative projects have the potential to result in a cumulatively significant impact if located in close proximity to one another and if construction of multiple cumulative projects were to occur at the same time. Therefore, a **potentially cumulatively significant** impact may occur as a result of the proposed project (**Impact CU-NOI-2**).

Criterion C: Permanent Increase in Ambient Noise Levels

A cumulative noise impact would occur if construction and development associated with cumulative regional land use projects, such as those identified in adjacent city and county general plans and regional transportation plans, when combined would result in an increase in ambient noise that would exceed the County's noise standards. However, development and construction proposed under most cumulative projects would be subject to regulations that require compliance with noise standards. It is not certain at this time if utility-scale renewable energy projects impacts to ambient noise levels would be reduced to less than significant during future project-specific discretionary and environmental review. Under the proposed project, the development of small-scale wind energy systems, utility-scale structure-mounted wind energy facilities, ~~and facilities (both small-scale and utility scale), utility-scale ground-mounted solar energy facilities,~~ and temporary MET towers would require a Minor CUP discretionary process and future utility-scale ground-mounted renewable energy facilities would require a CUP discretionary process, both of which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to implement feasible mitigation measures to minimize impacts to noise. However, as there is no guarantee at this time on a project-specific level that mitigation measures will reduce impacts to a level below significant, the construction and operation of utility-scale ground-mounted facilities, the operation of future small-scale wind energy systems, and the operation of utility-scale structure-mounted wind energy facilities may result in potentially significant impacts relative to generation of noise in excess of noise standards, regulations, or ordinances. Therefore, since construction equipment and future project noise operations are unknown at this time and may exceed respective jurisdiction's noise ordinance as well as cause a noise disturbance to sensitive receptors, in combination with cumulative projects, the proposed project would contribute to **cumulatively significant** impact (**Impact CU-NOI-3)**.

Criterion D: Temporary or Periodic Increase in Ambient Noise Levels

A cumulative noise impact would occur if construction associated with one or more projects in close proximity to one another would result in combined noise levels that would temporarily increase ambient noise levels beyond the standards in the County Noise Ordinance. However, since there are no specific plans or time scales for individual projects, it is not possible to

determine exact noise levels, locations, or time periods for construction. Additionally, projects would have to be constructed in close proximity to each other to result in a cumulative impact. However, these events would be short-term and event-specific in nature. Therefore, **no potentially cumulatively significant** impact associated with temporary increases in ambient noise levels would occur.

Criterion E: Excessive Noise Exposure from a Public Airport and Criterion F: Excessive Noise Exposure from a Private Airstrip

A cumulative noise impact would occur if construction and operation associated with cumulative regional land use projects, such as those identified in adjacent city and county general plans and regional transportation plans, when combined would result in the exposure of noise-sensitive land uses to excessive noise from a public or private airport. Development and construction proposed under most cumulative projects would be subject to regulations that require compliance with noise standards, such as the 1990 California Airport Noise Standards and applicable ALUCPs. The proposed project would not result in potentially significant impacts relative to noise exposure from a public airport or private airstrip as it would not place sensitive receptors in near proximity to these areas; therefore, the proposed project in combination with cumulative projects would **not result in a cumulatively significant** impact.

5.1.13 Population and Housing

Cumulative impacts may result from substantial unplanned population growth or displacement of a substantial number of housing units or people. The geographic scope for this cumulative analysis is the Los Angeles region, which encompasses the entire County, including both incorporated and unincorporated areas, as well as surrounding counties, and public agency lands. Cumulative projects, such as the 2015~~2014~~ Draft General Plan Update and build-out of general plans for adjacent jurisdictions, have been planned to be consistent with population forecasts and regional planning documents. These projects would accommodate anticipated future growth and would not induce substantial population growth. However, private projects not included in the 2015~~2014~~ Draft General Plan Update may propose dwelling units that may have the potential to induce unplanned population growth. Private projects such as these would be required to comply with the applicable general plan and, therefore, would ultimately need to be consistent with forecasted growth in the region prior to approval. Therefore, cumulative projects would not result in substantial unplanned population growth.

The 2015~~2014~~ Draft General Plan Update and general plans for adjacent jurisdictions are required to include a land use plan that demonstrates the provision of adequate housing within communities consistent with forecasted population growth. Because cumulative projects would

comply with all applicable land use plans to provide adequate housing and development within a jurisdiction, a significant displacement of housing units or people would not occur.

As described in Section 4.13 of this EIR, the proposed project would not induce substantial unplanned population growth or result in the displacement of housing or people. Therefore, the proposed project would **not contribute to a cumulative impact** relative to population and housing.

5.1.14 Public Services

The geographic scope for this cumulative analysis is the Los Angeles region, which encompasses the entire County, including both incorporated and unincorporated areas. Cumulative projects within the region would result in an increase in residential, commercial, and industrial development that would require fire protection, police protection, schools and library services. In order to maintain adequate levels of services and performance objectives to serve cumulative projects, the construction or expansion of facilities would be required, which would have the potential to result in an adverse impact on the environment. Therefore, cumulative projects would potentially result in a significant cumulative impact associated with the construction of public facilities.

As discussed in Section 4.14.4 of this EIR, the proposed project would not impact public services including fire protection, police protection, schools and library services within the County. Therefore, the proposed project would **not contribute to a cumulative impact** that would adversely affect public services.

5.1.15 Recreation

Cumulative impacts may result from an increase in the use of parks or other recreational facilities, or from the need for construction or expansion of existing recreational facilities. The geographic scope for this cumulative analysis is the Los Angeles region, which encompasses the entire County, including both incorporated and unincorporated areas, as well as surrounding counties and public agency lands. Some cumulative projects, such as the 2015 ~~2014~~ Draft General Plan Update and buildout of general plans for adjacent jurisdictions, would have the potential to increase the demand for recreational facilities, which could result in deterioration of existing facilities. However, funding from new development such as in-lieu fees for parks or donation of parkland pursuant to the Quimby Act, which requires recreational facilities for new subdivisions, may offset impacts to recreational facilities.

As described in Section 4.15.4 of this EIR, the proposed project would not induce population growth or the development of residential uses that would in turn increase the use of existing neighborhood and regional parks, or other recreational facilities in the vicinity, or require

construction of additional facilities. As a result, the proposed project would **not contribute to a cumulative impact** relative to recreational facilities.

5.1.16 Traffic and Circulation

The geographic scope for traffic includes cumulative growth projections for Los Angeles County that are reflected in the SCAG RTP/SCS. Past projects in Los Angeles County (cities and unincorporated areas) have converted undeveloped and agricultural land to urban uses resulting in residential and employment population increases and associated demand for expansions of roadway systems. The contribution of these past projects to area growth is also reflected in the SCAG RTP/SCS.

Criterion A: Conflict with Plan, Policy, or Ordinance and Criterion B: Conflict with CMP Guidelines

Projects in the region could result in cumulatively significant impacts due to potential conflicts with an applicable plan, ordinance, or policy establishing measures of the effectiveness of the circulation system performance, or with the CMP guidelines. Due to the brief construction period associated with installation of small-scale structure-mounted solar energy systems, utility-scale structure-mounted solar energy facilities, small-scale ground-mounted solar energy systems, small-scale wind energy systems and temporary MET towers, and utility-scale structure-mounted wind energy facilities, and because traffic generated by the construction and operation of these systems and facilities would be relatively minor, construction and operation of such systems and facilities would not conflict with the County's LOS standards.

Under the proposed project, the development of wind energy systems and facilities (both small scale and utility scale) and temporary MET towers would require a Minor CUP discretionary process and future utility-scale ground-mounted renewable energy facilities would require a CUP, both of which would trigger additional CEQA review. As part of the County's discretionary review process, all future projects would be evaluated under CEQA and required to implement feasible mitigation measures to minimize impacts to traffic. Pursuant to the County's Traffic Impact Analysis Report Guidelines, criteria are used to evaluate whether a proposed project could potentially have a significant adverse impact due to increased traffic, and, therefore, require preparation of a traffic impact analysis (TIA). The TIA would assess site-specific conditions and would require projects to apply feasible mitigation, as necessary. However, as there is no guarantee at this time on a project-specific level that mitigation measures would reduce impacts to a level below significant and since it is unknown whether cumulative projects would exceed LOS thresholds and/or CMP, construction of future utility-scale ground-mounted facilities in combination with cumulative projects may result in **cumulatively significant** impact (**Impact CU-TRF-1**).

Criterion C: Air Traffic

Per the County's Environmental Checklist, a significant impact or cumulative impact would result for this criterion if (a) a proposed project would generate an increase in population that would elicit substantial new demand for air travel and/or (b) if a project is over 200 feet in height or if it is located within specified distances from public use airport, military airports, or public use heliports. The proposed project would not result in significant impacts related to air traffic for reasons as described in Section 4.16.4 of this EIR. These facilities would not generate an increase in population that would elicit substantial new demand for air travel and would not exceed 200 feet in height (with the exception of utility-scale ground-mounted wind energy facilities). Additionally, the proposed Renewable Energy Ordinance includes a variety of aviation-related measures to minimize potential effects to air traffic and air safety. (For a complete list of these requirements, refer to Table 3-2 in Chapter 3 of this EIR). Therefore, the proposed project would **not result in a cumulatively significant** impact related to air traffic.

Criterion D: Road Safety

Cumulative projects in the region include surrounding jurisdictions' general plans and regional plans. It is possible that older roadways in the region may not be adequate by existing roadway standards. Additionally, many unincorporated areas that surround the County have rural roadway conditions similar to the unincorporated County. Therefore, cumulative projects in these areas would face the same traffic operational concerns including roadway networks that include existing roadways with horizontal and vertical curves sharper than existing standards; increased traffic on rural roads with slow moving agricultural vehicles; increased risk to pedestrians and bicyclists by increasing and/or redistributing traffic patterns; or hazards from at-grade rail crossings. While cumulative projects would not preclude improvements to roadways with potential hazards, there is no guarantee that these improvements would be constructed concurrently with the anticipated increase in vehicle trips on these roadways. However, the proposed project would not result in a significant impact related to road safety as described in Section 4.16.4 of this EIR. The proposed Zoning Code amendments require light and glare from ~~the panels~~utility-scale solar energy facilities to be directed away from adjacent rights-of-way. Therefore, impacts would **not be cumulatively significant**.

Criterion E: Emergency Access

Cumulative projects include the County and surrounding jurisdictions. Existing conditions in these areas may include existing inadequate roadway widths, dead-end roads, one-way roads, and gated communities, all of which have the potential to impair emergency access. However, cumulative emergency access impacts would be limited to the immediate vicinity of the impact, such as multiple obstructions to emergency access along the same route to an emergency care

facility hospital. In addition, most cumulative projects and applicable general plans, which propose the construction of new roadways, would be required to meet current state and applicable jurisdictional standards, in addition to CEQA requirements. Community plans would also be required to consider local public and fire access roads to fully address emergency access requirements. The proposed project would not result in impacts to emergency access. Therefore, cumulative project impacts would be considered **less than significant** because emergency access impacts would be limited to the immediate vicinity of a project area and associated impacts would be considered direct, not cumulative.

Criterion F: Alternative Transportation

Cumulative projects, consistent with applicable general plans, would locate land uses that are dependent on alternative transportation in areas that were not planned for in existing public transportation and regional plans. If cumulative projects in surrounding jurisdictions are not effectively communicated and planned with agencies managing alternative transportation in the region, conflicts would occur. However, most cumulative projects would be required to comply with existing federal, state, and local regulations, such as Americans with Disabilities Act (ADA), Highway Capacity Manual (HCM) 2000, Transportation Development Act (TDA) funds, 2030 RTP, 2006 RTIP, and any applicable Community plans or jurisdictional standards, such as the Transit Oriented District Ordinance, the Los Angeles County Bicycle Master Plan, and the Healthy Design Ordinance. However, it should be noted that the2015 ~~2014~~ Draft General Plan Update and the Transit Oriented District Ordinance have not yet been adopted~~.~~. The proposed project would not impact alternative transportation plans or policies and therefore would **not result in a cumulatively significant impact**.

5.1.17 Utilities and Service Systems

Cumulative impacts may result from an increase in wastewater treatment or water demand that exceeds existing requirements, entitlements and resources, substantial depletion of groundwater resources, or insufficient capacity to accommodate solid waste disposal needs. The geographic scope for this cumulative analysis is the Los Angeles region, which encompasses the entire County, including both incorporated and unincorporated areas, as well as surrounding counties, and public agency lands.

Cumulative projects within the region would result in an increase in residential, commercial, and industrial development that would require water and wastewater treatment and solid waste services. Compliance with regulations such as the Federal Water Pollution Control Act, California Water Code, Porter-Cologne Water Quality Control Act, Water Conservation Projects Act, Department of Environmental Health regulations, specific jurisdictional ordinances, and

CEQA would reduce cumulative impacts related to water and wastewater treatment to below a significant level.

Cumulative projects would result in an increase in impervious surfaces that would increase stormwater runoff volumes. The construction or expansion of stormwater drainage facilities may be required. However, most future stormwater drainage facilities would be required to conduct environmental review pursuant to CEQA or the National Environmental Policy Act (NEPA). In addition, regulations previously listed such as the Federal Water Pollution Control Act, California Water Code, and Porter-Cologne Water Quality would reduce the potential for a significant cumulative impact to occur relative to stormwater drainage facilities.

Cumulative projects would also have the potential to increase the demand for potable water. Although regulations such as the California Water Code and other described further in Section 4.16 are intended to reduce impacts to water supply, and cutbacks in water imports that may contribute to cumulative impacts.

As discussed in Section 4.17.4, the proposed project would not impact utilities and service systems including wastewater treatment, imported water supply, landfill capacity and solid waste within the County. Future projects would be required to comply with the LID Ordinance and to meet the MS4 permit requirements of the applicable RWQCB—Los Angeles, Lahontan, or Central Valley. However, the project may result in an impact relative to reliable water supply, particularly from groundwater resources, due to the development of small-scale wind and solar energy systems, temporary MET towers, utility-scale ground-mounted wind and solar energy facilities, and utility-scale structure-mounted solar and wind energy facilities. Therefore, the proposed project would contribute to a **cumulative impact** that would adversely affect utilities and service systems relative to water supply, specifically groundwater resources (**Impact CU-UTL-1**)**.**

CHAPTER 6
ALTERNATIVES

The California Environmental Quality Act (CEQA) requires in Section 15126.6 of the CEQA Guidelines that an environmental impact report (EIR) describe a range of reasonable alternatives to the proposed project or to the proposed project location that would feasibly attain most of the project objectives but would avoid or lessen any significant environmental impacts. An EIR should evaluate the environmental impacts of the alternatives compared to the proposed project. This chapter of the EIR describes and evaluates project alternatives and is intended to implement the requirements set forth in the CEQA Guidelines (Cal. Code Regs., Title 14, § 15000 et seq.). This chapter also identifies the Environmentally Superior Project Alternative as required by CEQA Guidelines Section 15126.6(e)(2).

6.1 RATIONALE FOR ALTERNATIVE SELECTION

The following discussion covers a reasonable range of feasible alternatives that focuses on avoiding or substantially lessening any significant effects of the project, even if these alternatives would not attain all of the project objectives or would be more costly. The discussion shall focus on alternatives to the proposed project that are capable of meeting most of the project objectives identified in Chapter 3, Project Description, of this EIR. According to the CEQA Guidelines, many factors may be taken into account when addressing the feasibility of alternatives, such as environmental impacts, site suitability as it pertains to various land use designations, economic viability, availability of infrastructure, regulatory limitations, and jurisdictional boundaries. Also according to the CEQA Guidelines, discussion of each alternative should be sufficient "to allow meaningful evaluation, analysis, and comparison with the proposed project" (Cal. Code Regs., Title 14, § 15000 et seq.). Therefore, the significant effects of each alternative are discussed in less detail than those of the proposed project, but in enough detail to provide decision makers with perspective and a basis for a reasoned choice among alternatives to the proposed project.

Additionally, a No Project Alternative is required to be included in the range of alternatives. An EIR need not consider an alternative whose effects cannot be reasonably identified, whose implementation is remote or speculative, or one that would not achieve most of the basic project objectives. Finally, the Environmentally Superior Alternative shall be identified and if it is the No Project Alternative, the next Environmentally Superior Alternative shall be identified.

The proposed project would result in potentially significant and unavoidable adverse impacts for which feasible mitigation measures would not reduce the impacts to below a level of significance for the following issues: aesthetics, agriculture and forestry, air quality, biology, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, traffic and circulation, and utilities and service systems. Potential impacts to the following were determined not to be significant, or less than significant with mitigation, after further

evaluation: greenhouse gas emissions and land use and planning. During the Initial Study process, the following issues were determined to be not significant or have no impact: ~~geology and soils,~~ mineral resources, population and housing, public services, and recreation.

The project alternatives that are addressed in Section 6.3 include:

- No Project (No Zoning Code Amendments) Alternative
- Reduced Small-Scale Solar Energy Systems Alternative
- Reduced Utility-Scale Solar and Wind Energy Facilities Alternative

The above alternatives were selected to reduce significant impacts associated with the proposed project while still meeting the majority of project objectives. These alternatives represent a reasonable range of alternatives as required by CEQA. The alternatives are compared to the impacts of the proposed project. A qualitative summary of the alternatives that compares their potential impacts is provided in Table 6-1, Summary of Analysis for Alternatives to the Proposed Project. The evaluated alternatives were selected, in part, relative to their ability to meet the basic objectives of the proposed project. As described in Chapter 3, the project objectives include the following:

1. Facilitate the use of renewable energy within the County pursuant to existing and future statewide goals.
2. Assist the County in furthering federal goals under the Energy Policy Act of 2005.
3. Reduce the potential for energy shortages and outages by facilitating local energy supply.
4. Clarify the approval process for the development and operation of solar and wind energy systems and facilities.
5. Minimize the potential for land use conflicts and environmental impacts that may arise through the development of renewable energy systems and facilities.
6. Encourage the development of small-scale and structure-mounted renewable energy systems and facilities through a streamlined and standardized permit review process.
7. Allow temporary MET towers with a Minor Conditional Use Permit (CUP) for the purposes of collecting data to determine appropriate locations for wind energy.

6.2 ALTERNATIVES CONSIDERED BUT REJECTED

The following alternative was considered but rejected from further analysis in the EIR because it would not accomplish most of the basic project objectives or would be infeasible to analyze.

Distributed Generation Policy

During the Notice of Preparation public scoping process, some stakeholders requested that the County develop a policy that ranks renewable energy projects in a manner that gives preferences to, or otherwise incentivizes, distributed generation projects in urbanized areas. Proponents of this policy believe that distributed generation in urbanized areas would have fewer environmental impacts because transmission requirements would be reduced and urbanized areas are already developed/disturbed and, therefore, would be less impacted by the introduction of solar or wind energy systems. However, while the County regulates land uses and development within its jurisdiction, it does not regulate energy distribution on a global level. The California Public Utilities Commission would be the appropriate authority to implement a distributed generation policy since it has the global oversight to rank and incentivize renewable energy projects. As such, the Distributed Generation Policy Alternative is outside the scope of this project and therefore has been rejected from further consideration.

6.3 ALTERNATIVES UNDER CONSIDERATION

The following discussion covers alternatives that were selected for further analysis as they have been determined to represent a reasonable range of alternatives that may potentially and feasibly attain most of the objects of the proposed project, while potentially avoiding or substantially lessening some of the identified significant effects of the proposed project. CEQA requires the inclusion of a No Project Alternative in the range of alternatives. The alternatives under consideration are as follows:

1. No Project (No Zoning Code Amendments) Alternative
2. Reduced Small-Scale Solar Energy Systems Alternative
3. Reduced Utility-Scale Solar and Wind Energy Facilities Alternative

Each alternative under consideration is fully described below, followed by analysis of each alternative regarding each environmental issue area where it was identified that the proposed project would have a potentially significant impact.

6.3.1 No Project (No Zoning Code Amendments) Alternative

The No Project Alternative assumes that the existing Zoning Code would remain in effect. The main differences between the No Project Alternative and the proposed project is that the proposed project provides an updated set of definitions, procedures, and standards for review and permitting intended to streamline and standardize the development of small-scale wind and solar energy systems, temporary MET towers, and utility-scale ground-mounted and structure-mounted renewable energy facilities. The proposed project includes allowing ~~a~~ small-scale solar

energy systems and utility-scale structure-mounted solar energy facilities to be permitted by right, provided they comply with all the requirements of the proposed Zoning Code amendments, which include complying with the underlying zone of the subject property and any other development regulations. Small-scale wind energy systems, temporary MET towers, utility-scale structure-mounted ~~solar~~ wind energy facilities, and utility-scale ground-mounted renewable energy facilities would all require further discretionary review and adherence to development standards as specified in the Zoning Code amendments; see Appendix A. It should be noted that under the existing Zoning Code, renewable energy projects (with the exception of small-scale wind energy systems and temporary MET towers) are ~~the term "renewable energy" is~~ not defined. As such, renewable energy projects that would be proposed under the No Project Alternative would undergo permitting procedures akin to energy generation plants (with the exception of small-scale wind energy systems and temporary MET towers, which would be subject to the existing provisions within Part 15 that currently regulate such projects). Because energy generation plants differ in project footprint and often in the types of resources that are most impacted, the existing development standards for renewable energy projects do not directly deal with impact areas specific to renewable energy.

As noted above, Part 15 of the existing Zoning Code contains provisions for small-scale wind energy systems and temporary MET towers. (Small-scale wind energy systems are termed "wind energy conversion systems, non-commercial" in the existing Zoning Code; however, the definition is generally equivalent to the definition of a "small-scale wind energy system" that is set forth in the proposed Zoning Code amendments.) Under both the No Project Alternative and the proposed project, the existing provisions for wind energy conversion systems, non-commercial, and temporary MET towers would remain in place. However, the proposed project would disallow guy wires from being used on small-scale wind energy systems and temporary MET towers, whereas the provisions for such projects under the No Project Alternative would continue to allow guy wires. Additionally, the proposed project includes the addition of bird and bat protection measures to the development standards for small-scale ground-mounted wind energy systems. Under the No Project Alternative, these protection measures would not be included in the Zoning Code.

Comparison of the Effects of the No Project Alternative to the Proposed Project

Aesthetics

The processing requirements for small-scale renewable energy systems, temporary MET towers, and utility-scale renewable energy facilities would remain as currently adopted and therefore would not be streamlined and standardized. For this reason, it is expected that without the proposed project, there may generally be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures.

However, under the No Project Alternative, the development standards for renewable energy projects contained within the proposed Zoning Code amendments would not be implemented. These development standards include limitations on height, size, glare, and lighting; see Table 3-2, Environmental Design Considerations. As such, under the No Project Alternative, the development standards that would reduce aesthetic impacts of future projects would not become part of the Zoning Code, and some future projects would have the potential to exceed the height, size, glare, and lighting restrictions that would be in place upon adoption of the proposed project. Although the No Project Alternative may result in fewer solar panels and wind turbines throughout the County, impacts to scenic vistas, views from trails, state scenic highways, visual character, and light and glare would remain potentially significant and could potentially be greater. This is because development of renewable energy projects (including both solar and wind systems and facilities) and temporary MET towers would still occur under the No Project Alternative and because this development would occur without the standards put in place by the proposed project.

Agriculture and Forestry Resources

Compared to the proposed project, it is expected that under the No Project Alternative, there may be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures. However, the development standards that would reduce potential impacts to agricultural and forestry resources, such as limitations on project size, amount of ground disturbance, and setbacks from agricultural zones, would not become part of the Zoning Code. As such, some future projects would have the potential to exceed the size, setbacks, and ground disturbance standards that would be in place upon adoption of the proposed project; see Table 3-2, Environmental Design Considerations. Therefore, although the No Project Alternative may result in fewer solar panels and wind turbines throughout the County, impacts to agricultural resources would remain potentially significant because this development would occur without the standards put in place by the proposed project.

Air Quality

Compared to the proposed project, it is expected that under the No Project Alternative, there may be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures. Fewer projects would lead to fewer construction and operation vehicle emissions, fewer construction equipment emissions, and less earthmoving activity.

However, under the No Project Alternative, development standards that would reduce potential impacts to air quality, such as dust and erosion control standards and limitations on amount of ground disturbance, would not become part of the Zoning Code; see Table 3-2, Environmental Design Considerations. As such, some future projects would have the potential to exceed the size,

ground disturbance, and dust and erosion control standards that would be in place upon adoption of the proposed project. The No Project Alternative would likely result in similar or greater potentially significant impacts relative to air quality standards and sensitive receptors due to the construction of utility-scale ground-mounted solar and wind energy facilities without requiring dust and erosion control standards and limitations on amount of ground disturbance. Additionally, the No Project Alternative would likely result in less than significant impacts to air quality plan consistency and objectionable odors, similar to the proposed project.

Biological Resources

Compared to the proposed project, it is expected that under the No Project Alternative, there may be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures. However, under the No Project Alternative, development standards that would reduce potential impacts to biological resources would not become part of the Zoning Code. These standards include limitations on height and size, standards to protect birds and bats, and prohibiting ground-mounted utility-scale renewable energy facilities from being constructed within adopted Significant Ecological Areas; see Table 3-2, Environmental Design Considerations. As such, under the No Project Alternative, some future projects would have the potential to exceed the size, height, location, and setback restrictions that would be in place upon adoption of the proposed project. Therefore, the No Project Alternative would likely result in more potentially significant impacts to sensitive species and sensitive habitats as compared to the proposed project.

Cultural Resources

Compared to the proposed project, it is expected that under the No Project Alternative, there may be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures. Therefore, under the No Project Alternative, less ground disturbance would occur in association with renewable energy projects. However, under the No Project Alternative, the development standards that would reduce potential impacts to cultural resources from future projects, such as limitations on project size and amount of ground disturbance, would not become part of the Zoning Code; see Table 3-2, Environmental Design Considerations. As such, some future projects may exceed the size restrictions and ground disturbance restrictions that would be in place upon adoption of the proposed project. The No Project Alternative would result in large-scale renewable energy facilities that would require large expanses of land comparable to the utility-scale renewable energy facilities under the proposed project. Therefore, although fewer projects may occur under the No Project Alternative, impacts to historical resources, archaeological resources, paleontological resources, and human remains would remain potentially significant and may be greater as compared to the proposed project.

Geology and Soils

Compared to the proposed project, it is expected that under the No Project Alternative, there may be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures. However, under the No Project Alternative, development standards that would reduce potential impacts to geology and soils, such as measures to ensure minimal soil erosion and limitations on amount of ground disturbance, would not become part of the Zoning Code; see Table 3-2, Environmental Design Considerations. As such, some future projects may exceed the size restrictions and ground disturbance restrictions that would be in place upon adoption of the proposed project. The No Project Alternative would result in large-scale renewable energy facilities that would require large expanses of land comparable to the utility-scale renewable energy facilities under the proposed project. Therefore, although fewer projects may occur under the No Project Alternative, impacts to geology, particularly related to soil erosion, would remain potentially significant and may be greater as compared to the proposed project.

Hazards and Hazardous Materials

Compared to the proposed project, it is expected that under the No Project Alternative, there may be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures. However, under the No Project Alternative, the development standards that would reduce potential impacts related to hazards and hazardous materials, such as maintenance requirements, setbacks, and height limitations, aviation safety standards, and glare standards~~, and fire access requirements~~ would not become part of the Zoning Code; see Table 3-2, Environmental Design Considerations. Therefore, although fewer projects may occur under the No Project Alternative, impacts to aviation hazards due to ocular obstruction and fire hazards, would remain potentially significant and may be greater as compared to the proposed project.

Hydrology and Water Quality

Compared to the proposed project, it is expected that under the No Project Alternative, there may be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures. However, under the No Project Alternative, the development standards that would reduce potential impacts related to hydrology and water quality, such as requirements to incorporate measures to protect water quality and to retain or restore existing site topography and watercourses, would not become part of the Zoning Code; see Table 3-2, Environmental Design Considerations. Therefore, the No Project Alternative may result in more impacts relative to hydrology and water quality as compared to the proposed project, although they are still expected to be less than significant as

with the proposed project due to regulations that are currently part of the L.A. County Code, such as the Low Impact Development Ordinance, Stormwater Runoff Pollution Control, and Erosion and Sediment Control Plans. Potentially significant impacts related to groundwater resources for dust control measures would still occur because of the overdraft condition in the Antelope Valley Basin.

Noise

Compared to the proposed project, it is expected that under the No Project Alternative, there may be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures. Fewer renewable energy development projects would generally result in less construction and operationally generated noise. However, under the No Project Alternative, the development standards that would reduce potential impacts related to noise, such as limitations on the amount of noise that can be produced by ~~small~~utility-scale wind energy ~~systems~~facilities, would not become part of the Zoning Code; see Table 3-2, Environmental Design Considerations. Overall, because similar renewable energy development may occur under the No Project Alternative as under the proposed project, impacts to excess noise levels, excess ground-borne vibration, increase in ambient noise, and excess temporary noise would remain potentially significant and may be greater as compared to the proposed project due to the lack of standards.

Traffic and Circulation

Compared to the proposed project, it is expected that under the No Project Alternative, there may be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures and therefore fewer required construction and operational trips. However, similar to the proposed project, the No Project Alternative may result in potentially significant short-term and temporary impacts to County traffic thresholds, conflicts with the Congestion Management Plan, hazardous roadway features, and emergency access during construction of large-scale renewable energy projects that are comparable to utility-scale renewable energy facilities under the proposed project.

Utilities and Service Systems

Compared to the proposed project, it is expected that under the No Project Alternative, there may be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures. Nonetheless, potentially significant impacts related to water supply from groundwater resources for dust control measures would still occur because of the overdraft condition in the Antelope Valley Basin.

6.3.2 Reduced Small-Scale Solar Energy Systems Alternative

The Reduced Small-Scale Solar Energy Systems Alternative involves two components. As this alternative affects the potential development of small-scale solar energy systems under the proposed project and not the development of utility-scale renewable energy facilities or temporary MET towers, this analysis will focus on only the environmental issue areas for which significant impacts from small-scale solar energy systems were identified for the proposed project. The components of the Reduced Small-Scale Solar Energy Systems Alternative are described as follows:

- Reduced Project Area – Small-scale solar energy systems would not be permitted, either by right or with a discretionary permit, in Open Space (O-S) and Watershed (W) zones.
- Reduced Project Size/Capacity – The size of small-scale solar energy systems would be limited to 500 kilowatts (kW). Anything larger than 500 kW would be considered utility scale and would require a Minor CUP or CUP, depending on whether the system is structure mounted or ground mounted. Comparatively speaking, the proposed project would allow small-scale ground-mounted solar systems of up to 25% maximum lot coverage, or 2.5 acres, whichever is less. The size of a typical 500 kW ground-mounted solar energy system is not expected to exceed approximately 30,000 square feet (or 0.7 acre).

All other components of the Reduced Small-Scale Solar Energy Systems Alternative would remain as in the proposed project. As stated above, development of utility-scale renewable energy facilities and temporary MET towers would not be affected by the Reduced Small-Scale Solar Energy Systems Alternative; as such, all potentially significant and significant and unavoidable impacts resulting from the development of utility-scale renewable energy facilities and temporary MET towers under the proposed project would remain as identified throughout this EIR.

Comparison of the Reduced Small-Scale Solar Energy Systems Alternative to the Proposed Project

Aesthetics

As discussed in Section 4.1 of this EIR, the proposed project would have potentially significant impacts related to scenic vistas, views from hiking trails, state scenic highways, visual character, and glare resulting from small-scale solar energy systems. Compared to the proposed project, the Reduced Small-Scale Solar Energy Systems Alternative would likely result in the development of fewer small-scale solar energy systems because it limits the potential developable area and places restrictions on what is allowed by right of a property owner. Therefore, the Reduced Small-Scale Solar Energy Systems Alternative would generally result in fewer impacts compared to the proposed project and the magnitude of aesthetic impacts resulting from developed small-scale solar energy systems would be lessened. All potentially significant aesthetic impacts that would have

occurred within O-S and W zones of the County would be avoided under this alternative; small-scale solar energy systems would not impact the visual quality or scenic vistas in open space areas (such as desert landscapes) and would be generally limited to areas of previous development. However, although this alternative would limit small-scale solar energy systems, development of such systems would still occur over a large area of unincorporated County land with similar design requirements and technology. As such, the Reduced Small-Scale Solar Energy Systems Alternative would likely result in potentially significant aesthetic impacts to scenic vistas, views from hiking trails, state scenic highways, visual character, and glare, albeit less than the proposed project.

Biological Resources

As discussed in Section 4.4 of this EIR, the proposed project would have potentially significant impacts related to sensitive species, sensitive natural communities, movement of wildlife species, and conflicts with plans that protect biological resources resulting from development of small-scale solar energy systems. Compared to the proposed project, the Reduced Small-Scale Solar Energy Systems Alternative would result in the development of fewer small-scale solar energy systems because it limits the potential developable area and places restrictions on what is allowed by right of a property owner. Less ground disturbance would result from the Reduced Small-Scale Solar Energy Systems Alternative because the size of these projects would be limited to approximately 30,000 square feet (for a maximum 500 kW system) as opposed to allowing projects up to 108,900 square feet (or 2.5 acres) in size. However, the Reduced Small-Scale Solar Energy Systems Alternative would likely still result in similar potentially significant impacts to the proposed project because this alternative does not preclude development of small-scale solar energy systems in rural areas where sensitive biological resources may occur.

Cultural Resources

As discussed in Section 4.5 of this EIR, the proposed project would have potentially significant impacts related to archaeological resources, paleontological resources, and human remains resulting from the construction of small-scale solar energy systems. Compared to the proposed project, the Reduced Small-Scale Solar Energy Systems Alternative would likely result in the development of fewer small-scale solar energy systems because it limits the potential developable area and places restrictions on what is allowed by right of a property owner. Less ground disturbance would result from the Reduced Small-Scale Solar Energy Systems Alternative because the size of these projects would be limited to approximately 30,000 square feet (for a maximum 500 kW system) as opposed to allowing projects up to 108,900 square feet (or 2.5 acres) in size. Therefore, fewer impacts to cultural resources would result. However, because ground-disturbing activities would still occur under the Reduced Small-Scale Solar Energy Systems Alternative, impacts would remain potentially significant.

Geology and Soils

Compared to the proposed project, the Reduced Small-Scale Solar Energy Systems Alternative would likely result in fewer small-scale solar energy systems because it limits the potential developable area and places restrictions on what is allowed by right of a property owner. Less ground disturbance would result from the Reduced Small-Scale Solar Energy Systems Alternative because the size of these projects would be limited to approximately 30,000 square feet (for a maximum 500 kW system) as opposed to allowing projects up to 108,900 square feet (or 2.5 acres) in size. Therefore, fewer impacts related to erosion and/or loss of topsoil would result. However, because ground-disturbing activities would still occur under the Reduced Small-Scale Solar Energy Systems Alternative, impacts would remain potentially significant.

Hazards and Hazardous Materials

Compared to the proposed project, the Reduced Small-Scale Solar Energy Systems Alternative would likely result in fewer small-scale solar energy systems because this alternative limits the potential developable area and places restrictions on what is allowed by right of a property owner. Nonetheless, the Reduced Small-Scale Solar Energy Systems Alternative may result in significant unavoidable impacts associated with aviation hazards due to ocular obstruction and fire hazards, just as the proposed project does.

Hydrology and Water Quality

Small-scale solar energy systems resulting from the proposed project would have a potentially significant impact on groundwater resources, as discussed in Section 4.9 of this EIR. Because small-scale solar energy systems would be allowed by right under the proposed project~~,~~, construction would potentially require substantial amounts of water for dust control measures without being subject to further discretionary review prior to commencement of construction. Compared to the proposed project, the Reduced Small-Scale Solar Energy Systems Alternative would likely result in the development of fewer small-scale energy systems because it limits the potential developable area and places restrictions on what is allowed by right of a property owner. Additionally, less ground disturbance would result because the size of these projects would be limited to approximately 30,000 square feet (for a maximum 500 kW system) as opposed to allowing projects up to 108,900 square feet (or 2.5 acres) in size. Therefore, less water for dust control would be required. Nonetheless, the Reduced Small-Scale Solar Energy Systems Alternative would still result in small-scale solar energy systems and other renewable energy projects that may require use of groundwater; therefore, this alternative would result in potentially significant impacts, especially in the Antelope Valley area due to the current overdraft condition.

Noise

Compared to the proposed project, the Reduced Small-Scale Solar Energy Systems Alternative would likely result in fewer small-scale solar energy systems throughout the County and therefore fewer noise-related impacts. However, similar to the proposed project, this alternative may still result in the generation of noise, including pure tone noise, in excess of noise standards, regulations, or ordinances from construction and operation of renewable energy systems and facilities. Additionally, this alternative may still result in increases in ambient noise and ground-borne vibration due to construction activities.

Traffic and Circulation

Compared to the proposed project, the Reduced Small-Scale Solar Energy Systems Alternative would likely result in fewer small-scale solar energy systems throughout the County and therefore fewer required construction and operational trips. Traffic and circulation impacts would be lessened under this alternative. However, similar to the proposed project, this alternative may still result in potentially significant short-term and temporary impacts to County traffic thresholds, conflicts with the Congestion Management Plan, hazardous roadway features, and emergency access during construction of large-scale renewable energy projects that are comparable to utility-scale renewable energy facilities under the proposed project.

Utilities and Service Systems

Compared to the proposed project, the Reduced Small-Scale Solar Energy Systems Alternative would likely result in fewer small-scale solar projects throughout the County. Potentially significant impacts related to groundwater resources for dust control measures required by small-scale solar energy systems under the proposed project would be reduced because the size of these projects would be limited to approximately 30,000 square feet (for a maximum 500 kW system) as opposed to allowing projects up to 108,900 square feet (or 2.5 acres) in size. However, the Reduced Small-Scale Solar Energy Systems Alternative would still result in the development of renewable energy projects that could potentially result in environmental effects similar to those under the proposed project, such as impacts to groundwater resources, particularly in the Antelope Valley area due to the overdraft condition. Therefore, potentially significant impacts resulting from the expansion of renewable energy utilities, although fewer than under the proposed project, would occur under the Reduced Small-Scale Solar Energy Systems Alternative.

6.3.3 Reduced Utility-Scale Solar and Wind Energy Facilities Alternative

The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would involve three substantial changes as compared to the proposed project. For each component, this analysis will focus on only the environmental issue areas for which significant impacts from utility-scale

structure-mounted solar energy facilities and wind energy facilities were identified for the proposed project.

- Reduced utility-scale structure-mounted solar energy facilities: Under the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative, utility-scale structure-mounted solar energy facilities would require a CUP in all zones with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Utility-scale structure-mounted solar energy facilities would not be permitted in the~~except~~ O-S and W zones ~~(where they would not be permitted)~~. For comparison, under the proposed project, utility-scale structure-mounted solar energy facilities would be allowed without discretionary review in all zones except O-S and W (where they would not be permitted) and R-1 (where a Minor CUP is required unless a project meets the definition of a "small residential rooftop solar energy system" as defined in Government Code Section 65850.5(j)(3)). Requiring discretionary review for these types of projects would require more time and costs affiliated with these projects.
- Reduced utility-scale structure-mounted wind energy facilities: Under the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative, utility-scale structure-mounted wind energy facilities would require a CUP in all zones except O-S and W (where they would not be permitted). For comparison, under the proposed project, utility-scale structure-mounted wind energy facilities would be allowed with a Minor CUP in all zones except O-S and W (where they would not be permitted).
- Reduced utility-scale ground-mounted wind and solar energy facilities: Under the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative, a minimum 60-foot setback would be required in agricultural zones and a minimum 30-foot setback would be required for all other zones. For comparison, the proposed project would require a 30-foot setback in agricultural zones and for non-agricultural zones the future facilities would need to adhere to the existing setback.

All other components would remain as specified in the proposed project.

Comparison of the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative to the Proposed Project

Aesthetics

As discussed in Section 4.1 of this EIR, the proposed project would have potentially significant impacts related to scenic vistas, views from hiking trails, and visual character resulting from utility-scale structure-mounted solar energy facilities, utility-scale structure-mounted wind energy facilities, and utility-scale ground-mounted wind and solar energy facilities. Additionally,

the proposed project would have potentially significant impacts related to state scenic highways resulting from utility-scale structure-mounted solar energy facilities and utility-scale ground-mounted wind and solar energy facilities. The proposed project would also have potentially significant impacts related to glare from utility-scale structure-mounted solar energy facilities and potentially significant impacts related to light from utility-scale ground-mounted wind energy facilities.

Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in the development of fewer utility-scale structure-mounted solar energy facilities because they would typically require discretionary review as opposed to being allowed by right in most conditions under the proposed project.

The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would require a CUP for utility-scale structure-mounted wind energy facilities in all zones except O-S and W (where they would not be permitted) and under the proposed project, utility-scale structure-mounted wind energy facilities would require a Minor CUP in all zones except O-S and W (where they would not be permitted). Although both this alternative and the proposed project would require discretionary review, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would require ~~additional findings to be made for~~ a CUP, thus making it slightly more time consuming and challenging in the discretionary review process. However, ~~given that~~ both the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative and the proposed project would require the same setbacks, and both would require discretionary review. Because it cannot be quantified how many utility-scale structure-mounted wind energy facilities would be approved, it is assumed that the numbers of utility-scale structure-mounted wind energy facilities developed under this alternative would be only slightly less as compared to the proposed project.

Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities would likely result in fewer utility-scale ground-mounted wind and solar energy facilities because this alternative requires a greater setback in agricultural zones and a greater increased setback could apply for all other zones. Therefore, the Reduced Utility-Scale Solar and Wind Facilities Alternative would generally result in fewer impacts compared to the proposed project and the magnitude of aesthetic impacts resulting from developed utility-scale ground-mounted wind and solar energy facilities would be lessened.

However, although this alternative would limit utility-scale structure-mounted solar energy facilities and utility-scale ground-mounted wind and solar energy facilities, development of such facilities would still occur over a large area of unincorporated County land with similar design requirements and technology. As such, the Reduced Utility-Scale Solar and Wind Facilities Alternative would result in potentially significant aesthetic impacts to scenic vistas, views from

hiking trails, state scenic highways, visual character, and glare similar to those of the proposed project, although to a lesser degree.

Agricultural Resources

As discussed in Section 4.2 of this EIR, the proposed project would have potentially significant impacts related to conversion of Farmland to non-agricultural use and potential impacts to agricultural zoning, Agricultural Opportunity Areas, or Williamson Act contract lands resulting from utility-scale ground-mounted wind and solar energy facilities. Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in the development of fewer utility-scale ground-mounted wind and solar energy facilities because it limits the potential developable area due to an increased minimum setback of 60 feet in agricultural zones compared to the required 30-foot setback under the proposed project. However, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in similar potentially significant impacts to the proposed project because this alternative does not preclude development of utility-scale ground-mounted wind and solar energy facilities in areas designated as Farmland or in agriculturally zoned properties, Agricultural Opportunity Areas, or Williamson Act contract lands, where conversion of Farmlands, agricultural zones, or Williamson Act contract lands may occur.

Air Quality

As discussed in Section 4.3 of this EIR, the proposed project would have potentially significant impacts related to the violation of an air quality standard and impacts related to the exposure of sensitive receptors to substantial pollutant concentrations resulting from utility-scale ground-mounted wind and solar energy facilities. Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative could result in the development of utility-scale ground-mounted wind and solar energy facilities being located further away from sensitive receptors due to the increased setbacks under this alternative. However, at this time, it is currently unknown where placement of these facilities would be in relation to sensitive receptors. Additionally, although the setbacks for these facilities would be increased, it is assumed that earthmoving activities under the proposed project and this alternative would be similar. Therefore, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in similar potentially significant impacts.

Biological Resources

As discussed in Section 4.4 of this EIR, the proposed project would have potentially significant impacts related to sensitive species, sensitive natural communities, movement of wildlife species, oak trees, and conflicts with plans that protect biological resources resulting from development

of utility-scale solar and wind facilities, utility-scale structure mounted solar energy facilities, and utility-scale ground-mounted wind and solar energy facilities.

Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in the development of fewer utility-scale structure-mounted solar energy facilities because they would typically require discretionary review as opposed to being allowed by right in most conditions under the proposed project.

The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would require a CUP for utility-scale structure-mounted wind energy facilities in all zones except O-S and W (where they would not be permitted) and under the proposed project, utility-scale structure-mounted wind energy facilities would require a Minor CUP in all zones except O-S and W (where they would not be permitted). Although both this alternative and the proposed project would require discretionary review, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would require ~~additional findings to be made for~~ a CUP, thus making it slightly more time consuming and challenging in the discretionary review process. However, ~~given that~~ the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative and the proposed project would require the same setbacks, and both would require discretionary review. Because it cannot be quantified how many utility-scale structure-mounted wind energy facilities would be approved, it is assumed that the numbers of utility-scale structure-mounted wind energy facilities developed under this alternative would be only slightly less as compared to the proposed project.

Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities would likely result in fewer utility-scale ground-mounted wind and solar energy facilities because this alternative requires a greater setback in agricultural zones and a greater increased setback could apply for all other zones. Therefore, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would generally result in fewer impacts compared to the proposed project because it limits the potential developable area. However, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in similar potentially significant impacts as the proposed project because this alternative does not preclude development of utility-scale solar and wind facilities, utility-scale structure mounted solar energy facilities, and utility-scale ground-mounted wind and solar energy facilities in rural areas where sensitive biological resources may occur.

Cultural Resources

As discussed in Section 4.5 of this EIR, the proposed project would have potentially significant impacts related to historical resources resulting from development of utility-scale solar and wind facilities, utility-scale structure-mounted solar energy facilities, and utility-scale ground-mounted wind and solar energy facilities.

Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in the development of fewer utility-scale structure-mounted solar energy facilities because they would typically require discretionary review as opposed to being allowed by right in most conditions under the proposed project.

The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would require a CUP for utility-scale structure-mounted wind energy facilities in all zones except O-S and W (where they would not be permitted) and under the proposed project, utility-scale structure-mounted wind energy facilities would require a Minor CUP in all zones except O-S and W (where they would not be permitted). Although both this alternative and the proposed project would require discretionary review, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would require ~~additional findings to be made for~~ a CUP, thus making it slightly more time consuming and challenging in the discretionary review process. However, ~~given that~~ the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative and the proposed project would require the same setbacks, and both would require discretionary review. Because it cannot be quantified how many utility-scale structure-mounted wind energy facilities would be approved, it is assumed that the numbers of utility-scale structure-mounted wind energy facilities developed under this alternative would be only slightly less as compared to the proposed project.

Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities would likely result in fewer utility-scale ground-mounted wind and solar energy facilities because this alternative requires greater setbacks. Therefore, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would generally result in fewer impacts compared to the proposed project because it limits the potential developable area. However, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in similar potentially significant impacts as the proposed project because this alternative does not preclude development of utility-scale solar and wind facilities, utility-scale structure mounted solar energy facilities, and utility-scale ground-mounted wind and solar energy facilities.

Geology and Soils

As discussed in Section 4.6 of this EIR, the proposed project would have potentially significant impacts related to erosion and/or loss of topsoil resulting from development of utility-scale ground-mounted wind and solar energy facilities. Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in fewer utility-scale ground-mounted wind and solar energy facilities because this alternative requires a greater setback in agricultural zones and a greater increased setback could apply for all other zones. Therefore, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would generally result in fewer impacts compared to the proposed project. However, at this time, it is currently unknown where facilities would be constructed. Additionally, although the setbacks

for these facilities would be increased, it is assumed that earthmoving activities under the proposed project and this alternative would relatively be the same. Therefore, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in similar potentially significant impacts related to erosion and/or loss of topsoil until the discretionary review process has been completed, including evaluation of CEQA and implementation of any mitigation measures to minimize erosion and/or loss of topsoil.

Hazards and Hazardous Materials

As discussed in Section 4.8 of this EIR, the proposed project would have potentially significant impacts related to glare that would result in ocular obstruction resulting from development of utility-scale structure-mounted solar energy facilities. Additionally, the proposed project would have potentially significant impacts related to wildland fires resulting from development of utility-scale structure-mounted solar energy facilities, utility-scale structure-mounted wind energy facilities, and utility-scale ground-mounted wind and solar energy facilities.

Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in the development of fewer utility-scale structure-mounted solar energy facilities because they would typically require discretionary review as opposed to being allowed by right in most conditions under the proposed project.

The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would require a CUP for utility-scale structure-mounted wind energy facilities in all zones except O-S and W (where they would not be permitted) and under the proposed project, utility-scale structure-mounted wind energy facilities would require a Minor CUP in all zones except O-S and W (where they would not be permitted). Although both this alternative and the proposed project would require discretionary review, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would require ~~additional findings to be made for~~ a CUP, thus making it slightly more time consuming and challenging in the discretionary review process. However, ~~given that~~ the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative and the proposed project would require the same setbacks, and both would require discretionary review. Because it cannot be quantified how many utility-scale structure-mounted wind energy facilities would be approved, it is assumed that numbers of utility-scale structure-mounted wind energy facilities developed under this alternative would only be slightly less as compared to the proposed project. Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities would likely result in fewer utility-scale ground-mounted wind and solar energy facilities because this alternative requires greater setbacks and therefore a reduced potential for fire hazards. Nonetheless, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative may result in significant unavoidable impacts associated with aviation hazards due to ocular obstruction and fire hazards, just as the proposed project would.

Hydrology and Water Quality

As discussed in Section 4.9 of this EIR, the proposed project would have potentially significant impacts related to groundwater resources resulting from development of utility-scale ground-mounted wind and solar energy facilities. Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in fewer utility-scale ground-mounted wind and solar energy facilities because this alternative requires greater setbacks, which could limit the potential developable area, thus slightly decreasing the amount of impervious areas. Nonetheless, this alternative would result in renewable energy projects that may require use of groundwater and therefore would result in potentially significant impacts, especially in the Antelope Valley area due to the current overdraft condition.

Noise

As discussed in Section 4.12 of this EIR, the proposed project would have potentially significant impacts related to noise in excess of noise standards, regulations, or ordinances, vibrational impacts, and substantial permanent increases in ambient noise levels relative to existing noise levels resulting from development of utility-scale structure-mounted wind energy facilities and utility-scale ground-mounted wind energy facilities. Additionally, the proposed project would have potentially significant impacts related to substantial temporary or periodic increases in ambient noise levels resulting from development of utility-scale ground-mounted wind and solar energy facilities.

The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would require a CUP for utility-scale structure-mounted wind energy facilities in all zones except O-S and W (where they would not be permitted) and under the proposed project, utility-scale structure-mounted wind energy facilities would require a Minor CUP in all zones except O-S and W (where they would not be permitted). Although both this alternative and the proposed project would require discretionary review, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would require ~~additional findings to be made for~~ a CUP, thus making it slightly more time consuming and challenging in the discretionary review process. However, it is assumed that similar noise and vibrational impacts would occur compared to impacts under the proposed project.

Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in fewer utility-scale ground-mounted wind and solar energy facilities because this alternative requires greater setbacks, which would reduce noise levels and vibrational impacts from surrounding properties.

Traffic and Circulation

As discussed in Section 4.16 of this EIR, the proposed project would have potentially significant impacts related to inconsistencies with the County's level of service thresholds and Congestion Management Plan resulting from development of utility-scale ground-mounted wind energy facilities. Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in fewer utility-scale ground-mounted wind and solar energy facilities because this alternative requires a greater setback therefore fewer required construction and operational trips. Level of service and congestion would be lessened under this alternative. However, similar to the proposed project, this alternative may still result in potentially significant short-term and temporary impacts to County level of service thresholds and/or conflicts with the Congestion Management Plan.

Utilities and Service Systems

As discussed in Section 4.17 of this EIR, the proposed project would have potentially significant impacts related to water supply, particularly groundwater resources, from development of solar and wind energy facilities. Compared to the proposed project, the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would likely result in fewer utility-scale structure-mounted solar energy facilities and utility-scale ground-mounted wind and solar energy facilities throughout the County. Potentially significant impacts related to water supply relative to groundwater resources may be reduced. However, this alternative would still result in the development of renewable energy projects that could potentially result in environmental effects similar to those under the proposed project, such as impacts to groundwater resources particularly in the Antelope Valley area due to the overdraft condition. Therefore, potentially significant impacts resulting from the expansion of energy utilities, while fewer, would occur under this alternative.

6.4 ENVIRONMENTALLY SUPERIOR PROJECT ALTERNATIVE

As compared to the proposed project, the Reduced Small-Scale Solar Energy Systems Alternative and Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would result in reduced environmental impacts as compared to the proposed project, whereas the No Project Alternative would result in greater environmental impacts as compared to the proposed project; see Table 6-1, Summary of Analysis for Alternatives to the Proposed Project. It is expected that under the No Project Alternative, there may generally be fewer renewable energy projects implemented throughout the unincorporated County due to the absence of standardized and streamlined permitting procedures. However, future renewable energy projects under the No Project Alternative would undergo permitting procedures akin to energy generation plants because under the existing Zoning Code, renewable energy projects (with the exception of small-scale wind energy systems and temporary MET towers) are ~~the term "renewable energy" is~~ not

defined. Because energy generation plants differ in project footprint and often in the types of resources that are most impacted, the existing development standards for renewable energy projects do not directly deal with impact areas specific to renewable energy. Similarly, the existing Part 15 provisions for small-scale wind energy systems do not currently include measures to protect bird and bat species from the effects of such systems, whereas the proposed Zoning Code amendments would add such provisions to the existing regulations for small-scale ground-mounted wind energy systems. As a result, the No Project Alternative could result in increased impacts due to the lack of standards specific to renewable energy systems and facilities and due to the absence of specific bird and bat protection measures for small-scale wind energy systems. Additionally, the proposed project would prohibit ground-mounted utility-scale renewable energy facilities from being constructed within adopted Significant Ecological Areas, whereas the No Project Alternative would not. While generally fewer renewable energy projects may be implemented under the No Project Alternative, these projects would not be required to implement the standards specific to the industry that are included as part of the proposed project. Therefore, some environmental impacts, such as aesthetics, agriculture and forestry, air quality, biology, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and noise, could potentially be increased as compared to the proposed project. Additionally, the No Project Alternative would not meet the project objectives.

The Reduced Small-Scale Solar Energy Systems Alternative and Reduced Utility-Scale Wind and Solar Energy Facilities Alternative would decrease environmental impacts as compared to the proposed project, as depicted in Table 6-1, Summary of Analysis for Alternatives to the Proposed Project. However, it should be noted that neither of these alternatives would reduce potentially significant impacts to a level less than significant, as also indicated in Table 6-1. The Reduced Utility-Scale Wind and Solar Energy Facilities Alternative would require all future utility-scale renewable energy facilities to obtain a discretionary permit with the exception of projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3). Therefore, this alternative would largely eliminate one of the by-right components of the proposed project. The Reduced Small-Scale Solar Energy Systems Alternative would reduce impacts associated with small-scale solar energy systems, but these systems and utility-scale structure-mounted solar energy facilities would still be allowed by right.

The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would result in fewer future renewable energy projects allowed by right, and in turn, more types of renewable energy projects would be required to undergo further discretionary review and implement project-specific mitigation measures as necessary through the CEQA process. The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative would not reduce any potentially significant impacts to less than significant as compared to the proposed project, but it would lessen the

degree of such impacts. Therefore, the Reduced Utility-Scale Solar and Wind Energy Alternative is the environmentally preferred alternative.

Table 6-1
Summary of Analysis for Alternatives to the Proposed Project

Issue Areas	Zoning Code Amendments (Proposed Project)			Alternatives to the Proposed Project		
	Small-Scale Solar Energy Systems	*Small-Scale Wind Energy Systems and MET Towers*	*Utility- Scale Wind and Solar Energy Facilities*	*Reduced Small-Scale Solar Energy Systems*	*Reduced Utility-Scale Solar and Wind Energy Facilities*	*No Project*
4.1 Aesthetics						
a. Scenic Vistas	SU	SU	SU	▼	▼	▲
b. Views from Trails	SU	SU	SU	▼	▼	▲
c. Scenic Resources	SU	NS	SU	▼	▼	▲
d. Visual Character or Quality	SU	SU	SU	▼	▼	▲
e. Light and Glare	SU	NS	SU	▼	▼	▲
4.2 Agriculture and Forestry						
a. Conversion of Farmland	NS	NS	SU	▼	▼	▲
b. Agricultural Zoning and Williamson Act Contracts	NS	NS	SU	▼	▼	▲
c. Forest or Timberland Conflicts	NS	NS	NS	—	—	—
d. Loss or Conversion of Forest Land	NS	NS	NS	—	—	—
e. Indirect Conversion of Farmland of Forest Land	NS	NS	SU	▼	▼	▲
4.3 Air Quality						
a. Conformance with the South Coast AQMD (SCAQMD) or the Antelope Valley AQMD (AVAQMD	NS	NS	NS	—	—	—
b. Conformance to Federal and State Air Quality Standards	NS	NS	SU	▼	▼	▲
c. Non-Attainment Criteria Pollutants	NS	NS	NS	—	—	—
d. Sensitive Receptors	NS	NS	SU	▼	▼	▲
e. Odors	NS	NS	NS	—	—	—
4.4 Biology						
a. Candidate, Sensitive, or Special-Status Species	SU	SU	SU	▼	▼	▲
b. Riparian Habitat or Sensitive Natural Community	SU	SU	SU	▼	▼	▲
c. Federally Protected Wetlands	NS	NS	NS	—	—	—
d. Wildlife Movement	SU	SU	SU	▼	▼	▲
e. Convert Oak Woodlands	SU	SU	SU	▼	▼	▲
f. Local Policies, Ordinances, Adopted Plans	SU	NS	SU	▼	▼	▲
g. Conflict with adopted habitat conservation plan	SU	NS	SU	—	—	—
4.5 Cultural Resources						
a. Historical Resources	SU	SU	SU	▼	▼	▲

Table 6-1
Summary of Analysis for Alternatives to the Proposed Project

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	Small-Scale Solar Energy Systems	*Small-Scale Wind Energy Systems and MET Towers*	*Utility- Scale Wind and Solar Energy Facilities*	*Reduced Small-Scale Solar Energy Systems*	*Reduced Utility-Scale Solar and Wind Energy Facilities*	*No Project*
b. Archaeological Resources	SU	NS	NS	▼	▼	▲
c. Paleontological Resources	SU	NS	NS	▼	▼	▲
d. Human Remains	SU	NS	NS	▼	▼	▲
4.6 Geology and Soils						
a. Expose people or structures to potential adverse effects, including the risk of loss, injury or death involving:						
i. Rupture of a known earthquake fault	NS	NS	NS	—	—	—
ii. Strong seismic ground shaking	NS	NS	NS	—	—	—
iii. Seismic-related ground failure	NS	NS	NS	—	—	—
iv. Landslides	NS	NS	NS	—	—	—
b. Result in substantial soil erosion or the loss of topsoil	SU	SU	SU	▼	▼	▲
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	NS	NS	NS	—	—	—
d. Be located on expansive soil	NS	NS	NS	—	—	—
e. Soils incapable of adequately supporting the use of on-site wastewater treatment systems	NS	NS	NS	—	—	—
f. Conflict with the Hillside Management Area Ordinance	NS	NS	NS	—	—	—
4.8 Hazards and Hazardous Materials						
a. Hazardous Substance Handling	NS	NS	NS	—	—	—
b. Accidental Release of Hazardous Materials	NS	NS	NS	—	—	—
c. Hazards to Sensitive Land Uses	NS	NS	NS	—	—	—
d. Existing Hazardous Materials Sites	NS	NS	NS	—	—	—
e. Airport Hazards	SU	NS	SU	▼	▼	▲
f. Private Airstrip Hazards	SU	NS	SU	▼	▼	▲
g. Emergency Response and Evacuation Plans	NS	NS	NS	—	—	—
h. Wildland Fires	SU	SU	SU	▼	▼	▲
i. Dangerous Fire Hazard	SU	SU	SU	▼	▼	▲

Table 6-1
Summary of Analysis for Alternatives to the Proposed Project

Issue Areas	Zoning Code Amendments (Proposed Project)			Alternatives to the Proposed Project		
	Small-Scale Solar Energy Systems	*Small-Scale Wind Energy Systems and MET Towers*	*Utility- Scale Wind and Solar Energy Facilities*	*Reduced Small-Scale Solar Energy Systems*	*Reduced Utility-Scale Solar and Wind Energy Facilities*	*No Project*
4.9 Hydrology and Water Quality						
a. Violate Water Quality Standards or Waste Discharge Requirements	NS	NS	NS	—	—	—
b. Deplete Groundwater Supplies or Interfere with Groundwater Recharge	SU	NS	SU	▼	▼	▲
c. Erosion	NS	NS	NS	—	—	—
d. Flooding	NS	NS	NS	—	—	—
e. Vector	NS	NS	NS	—	—	—
f. Stormwater Runoff	NS	NS	NS	—	—	—
g. Violate NPDES Permits or Affect Groundwater Quality	NS	NS	NS	—	—	—
h. Conflict with Low Impact Development Ordinance	NS	NS	NS	—	—	—
i. Discharge into Areas of Special Biological Significance	NS	NS	NS	—	—	—
j. Use Onsite Wastewater Treatment Systems in areas with geological limitations or close proximity to surface water	NS	NS	NS	—	—	—
k. Otherwise Degrade Water Quality	NS	NS	NS	—	—	—
l. Place Housing in 100-year Flood Hazard Area	NS	NS	NS	—	—	—
m. Impede or Redirect Flow in 100-year Flood Hazard Area	NS	NS	NS	—	—	—
n. Risk Related to Flooding From Failure of Dam or Levee	NS	NS	NS	—	—	—
o. Seiche, Tsunami or Mudflow	NS	NS	NS	—	—	—
4.12 Noise						
a. Excessive Noise Levels	NS	~~SU~~NS	SU	▼	▼	▲
b. Excessive Groundborne Vibration	NS	NS	SU	▼	▼	▲
c. Permanent Increase in Ambient Noise Levels	NS	SU	SU	▼	▼	▲
d. Temporary or Periodic Increase in Ambient Noise Levels	NS	NS	SU	▼	▼	▲
e. Excessive Noise Exposure from a Public Airport	NS	NS	NS	—	—	—
f. Excessive Noise Exposure from a Private Airport	NS	NS	NS	—	—	—
4.16 Traffic and Circulation						
a. Conflict with Plan, Policy, or Ordinance	NS	NS	SU	—	—	—

Table 6-1
Summary of Analysis for Alternatives to the Proposed Project

Issue Areas	Zoning Code Amendments (Proposed Project)			Alternatives to the Proposed Project		
	Small-Scale Solar Energy Systems	*Small-Scale Wind Energy Systems and MET Towers*	*Utility- Scale Wind and Solar Energy Facilities*	*Reduced Small-Scale Solar Energy Systems*	*Reduced Utility-Scale Solar and Wind Energy Facilities*	*No Project*
b. Conflict with CMP Guidelines for the Determination of Significance	NS	NS	SU	—	—	—
c. Change Air Traffic Patterns	NS	NS	NS	—	—	—
d. Increase Hazards Due to Design Feature	NS	NS	NS	—	—	—
e. Inadequate Emergency Access	NS	NS	NS	—	—	—
f. Alternative Transportation	NS	NS	NS	—	—	—
4.17 Utilities and Service Systems						—
a. Wastewater Treatment	NS	NS	NS	—	—	—
b. Water or Wastewater Capacity	NS	NS	NS	—	—	—
c. Drainage Capacity	NS	NS	NS	—	—	—
d. Reliable Water Supply	SU	SU	SU	▼	▼	—
e. Create Energy Utility That Would Cause Significant Environmental Effects	NS	NS	SU	—	—	—
f. Landfill Capacity	NS	NS	NS	—	—	—
g. Solid Waste	NS	NS	NS	—	—	—

▲ Alternative is likely to result in greater impacts to issue when compared to proposed project
— Alternative is likely to result in similar impacts to issue when compared to proposed project
▼ Alternative is likely to result in less impacts to issue when compared to proposed project, however, impacts would still be significant and unavoidable.
NS = not a potentially significant impact
SU = potentially significant and unavoidable impact

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CHAPTER 7
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CHAPTER 8
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CHAPTER 9
MITIGATION MONITORING AND REPORTING PROGRAM

California Public Resources Code Section 21081.6 requires that, upon certification of an EIR, "the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation."[1]

This mitigation monitoring and reporting program (MMRP) has been developed in compliance with Public Resources Code Section 21081.6 and Section 15097 of the CEQA Guidelines. The mitigation measures in the table are coded by alphanumeric identification consistent with the EIR. The following items are identified for each mitigation measure:

- **Action Required.** Provides a summary of the step(s) that need to be taken by the monitoring party to comply with the mitigation measure.
- **Mitigation Timing.** Indicates when implementation of the mitigation measure would occur relative to construction. For mitigation involving development of a plan, the timing of the mitigation measure is assumed to include plan preparation (occurring prior to construction) and plan implementation (occurring during and/or after construction).
- **Responsible Party.** Indicates the agency or other entity that is responsible for ensuring that the mitigation measure is implemented and that monitoring and reporting activities occur.
- **Monitoring Party.** Assigns implementation of monitoring and reporting activities to the applicable agency.
- **Completion.** Provides a location for the monitoring party to record their initials and the compliance date.

The County must adopt this MMRP, or an equally effective program, if it approves the proposed project with the mitigation measures that were adopted or made conditions of project approval.

[1] California Public Resources Code, Section 21000–21177. California Environmental Quality Act (CEQA), as amended.

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
Agriculture and Forestry Resources								
MM AGR-1 When impacts relative to Farmland, agricultural zoning, Agricultural Opportunity Areas, or Williamson Act contracts are determined to be significant during the environmental review process for future Conditional Use Permits for utility-scale ground-mounted renewable energy facilities, all feasible and appropriate project-specific mitigation measures shall be incorporated. Examples of standard mitigation measures include avoidance of agricultural resources, preservation of agriculture, and inclusion of compatibility buffers near areas intended for agricultural uses.	Incorporation of measures into future utility-scale ground-mounted renewable energy projects to avoid, preserve, or buffer agricultural areas.	Develop Measures	Implement Measures	Maintain measures	DRP	Future Project Applicants		
Air Quality								
MM AQ-1 During the environmental review process for future utility-scale ground-mounted renewable energy facilities, an air quality technical report that includes project construction phasing, timing, and operational details shall be prepared using the current air quality model available from the South Coast Air Quality Management District (SCAQMD). Project emissions shall be modeled and then evaluated based on current SCAQMD and Antelope Valley Air Quality Management District (AVAQMD) thresholds. The technical analysis shall be prepared to analyze construction and operational emissions. If air quality impacts are determined to be significant, feasible and appropriate project-specific	Preparation of an air quality technical report for future utility-scale ground-mounted renewable energy facilities and development of project-specific measures to reduce any significant air quality impacts that were identified in the air quality technical report. Incorporation of feasible measures into project construction, design, and/or operation.	Conduct study; incorporate project design measures	Implement measures, if required	Implement measures, if required	DRP	Future Project Applicants		

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
mitigation measures shall be incorporated to reduce impacts. Examples of standard construction mitigation measures include the following: Consistent with SCAQMD and AVAQMD Rule 403, it is required that fugitive dust generated by construction activities be kept to a minimum with a goal of retaining dust on the site, by following the dust control measures listed below: a. During clearing, ground disturbance, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease. b. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement and construction work areas damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas later in the morning, after work is completed for the day, and whenever winds exceed 15 miles per hour (mph). c. Soil stockpiled for more than 2 days shall be covered, kept moist, or treated with nontoxic soil binders to prevent dust generation. d. Speeds on unpaved roads shall be reduced to less than 15 mph.								

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
e. All ground disturbance, grading, and excavation operations shall be halted when wind speeds exceed 25 mph. f. Dirt and debris spilled onto paved surfaces at the project site and on the adjacent roadways shall be swept, vacuumed, and/or washed at the end of each workday. g. If import/export of soil materials would be required, all trucks hauling dirt, sand, soil, or other loose material to and from the construction site shall be covered and/or a minimum 2 feet of freeboard shall be maintained. h. At a minimum, at each vehicle egress from the project site to a paved public road, a pad consisting of washed gravel (minimum size: 1 inch) shall be installed and maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long (or as otherwise directed by the SCAQMD or AVAQMD). If a washed gravel pad is not desired, a wheel-washing system shall be installed and used to remove bulk material from tires and vehicle undercarriages before vehicles exit the site. i. Any additional requirements of SCAQMD and AVAQMD Rule 403 shall be reviewed and complied with. The following measures shall be adhered to during project grading / ground disturbance and construction to reduce emissions of volatile organic								

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
compounds (VOCs) and oxides of nitrogen (NO_x) from construction equipment: a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 4 or better diesel engines. b. The engine size of construction equipment shall be the minimum size. c. The amount of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest amount of equipment is operating at any one time. d. Construction equipment shall be maintained in tune per the manufacturer's specifications. e. Catalytic converters shall be installed on gasoline-powered equipment over 50 horsepower. f. Electric equipment shall be used in lieu of diesel-powered equipment, where feasible. g. Construction equipment shall be prohibited from idling in excess of 5 minutes. h. Zero-VOC-content architectural coatings during project construction/application of paints and other architectural coatings to reduce ozone (03) precursors shall be used. If zero-VOC paint cannot be used, the developer shall avoid application of architectural coatings during the peak smog								

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
season: July, August, and September. The developer shall procure architectural coatings from a supplier in compliance with the requirements of SCAQMD's Rule 1113 (Architectural Coatings).								
MM AQ-2 Pursuant to a Los Angeles County (County) Board Motion of May 14, 2013, Agenda Item No. 79-B, ~~the following~~ project-specific mitigation measures and/or other project-related conditions of approval for all discretionary renewable energy projects shall include the following measures related to fugitive dust control during both construction and operation. The County Departments of Regional Planning, Public Works, and Public Health shall work jointly to refine and implement these measures respective of their individual authorities to ensure fugitive dust from renewable energy projects is controlled appropriately. a. Continue to require a fugitive dust control plan for review and approval by the AVAQMD. b. Require a dust plume response plan including weather stations and monitors with wind speed, wind direction, temperature, and humidity sensors. c. Establish full or partial perimeter vegetation for both visual screening and limiting the off-site movement of dust.	Incorporation of project-specific measures to test for and control fugitive dust.	Prepare fugitive dust control plans	Implement required measures	Implement required measures	DRP -AND- DPH	Future Project Applicants		

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
d. Require reestablishment of vegetative ground cover to the greatest extent feasible throughout the array areas for the life of the subject permit. e. Continue to require decommissioning plans to include restoration of disturbed areas with native vegetation at the end of the life of the project. f. Require additional mitigation monitoring and inspections during the first 2 years to ensure compliance with dust mitigation measures and other conditions of project approval. g. When appropriate, require a dedicated on-site compliance monitor during construction to independently monitor and report project compliance. h. When appropriate, require installation of mechanical dust-monitoring devices at each project site to identify locations on site that require dust control treatment. The dust sensors will also clarify whether the project is a dust source during a wind event. i. Require use of green-screen fencing cover during construction and use of tarps over dirt in trucks to limit off-site movement of dust and limit visual impacts during construction.								

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
Biological Resources								
MM BIO-1 All renewable energy projects that require a discretionary permit shall be subject to CEQA review, and when impacts to biological resources are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated. Examples of standard mitigation measures may include, but are not limited, to the following: Establish buffers of a minimum of 100 feet between solar panels and the edge of existing lakes, reservoirs, wetlands, playas, and other water features. For significant impacts to sensitive species, natural communities, or ecological process (like wildlife movement or hydrological processes) resulting from ground disturbance impacts associated with ground mounted facilities, compensatory mitigation would generally involve one or a combination of the following actions: On or off-site habitat preservation, habitat restoration/enhancement, long-term habitat management activities, and/or species translocations. For impacts to federal or state listed species from ground-mounted facilities, incidental take authorization would be required from the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife.	Incorporation of project-specific measures to minimize effects to biological resources.	Design project consistent with permit requirements and avoidance measures, if any; design habitat restoration, if required	Implement project-specific measures, if required	Conduct restoration, if required	DRP; U.S. Army Corps of Engineers; Regional Water Quality Control Board; California Department of Fish and Wildlife; U.S. Fish and Wildlife Service	Future Project Applicants		

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
For impacts to jurisdictional wetlands and waters from ground mounted facilities, permits and/or approvals would be required from the appropriate regulatory agencies with jurisdiction over wetlands and waters. For potential impacts to avian species related to reflection/refraction of light from solar projects (referred to as lake effects), solar projects sited away from existing lakes, reservoirs, wetlands, playas, and other water features would have a reduced potential to attract waterfowl and other bird species and a reduced potential to impact these species from collision with panels; or projects sited adjacent to existing lakes, reservoirs, wetlands, playas, and other water features or areas where bird use determined to be high and the risk of avian collision with panels is considered high should incorporate anti-reflective or low-glare solar panels or design the configuration of solar panels so that they do not mimic natural waterbodies (e.g., avoid large contiguous areas of solar panels; intersperse areas of panels with areas of non panels).								
MM BIO-2 Projects determined to have a significant high risk of avian collision with panels after application of MM-BIO-1 (lake effect related measures) shall be required to develop a Bird Conservation Strategy for submittal and approval by the County and U.S. Fish and Wildlife Service. The Bird Conservation Strategy shall describe avoidance, minimization, monitoring, and/or compensatory mitigation measures that would offset the adverse effects of bird collision.	Development of Bird Conservation Strategy	Determine impact potential; develop strategy, if required	Implement measures identified in the strategy, if any	Implement measures identified in the strategy, if any	DRP -AND- U.S. Fish and Wildlife Service	Future Project Applicants		

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
MM BIO-3 Ministerial permits for small-scale ground-mounted solar energy systems will include a notice to the permittee explicitly stating that additional state and federal regulations may apply to the construction and operation of the small-scale ground-mounted solar energy system including, but not limited to, U.S. Endangered Species Act, the California Endangered Species Act, California Native Plant Protection Act, and the California Fish and Game Code.	Update Zoning Conformance Review application to require permittees for small-scale ground-mounted solar energy systems to be given notice of applicable laws protecting biological resources	County to provide notice to permittees	Permittees to adhere to applicable state and federal regulations	Permittees to adhere to applicable state and federal regulations	DRP and permitting agency, if applicable	DRP and permitting agency, if applicable		
~~*Cultural Resources*~~								
~~**MM CUL-1** The County shall provide incentives through the Mills Act to encourage the restoration, renovation, or adaptive reuse of historic resources. This will be done by reaching out to property owners with identified historic resources to participate.~~	~~County to incentivize preservation of historic resources.~~	—	—	—	~~DRP~~	~~DRP~~		
Hazards and Hazardous Materials								
MM HAZ-1 During the environmental review process for future discretionary permits for wind turbines, the County may determine that a Fire Protection Plan (FPP) should be prepared for review and approval. An FPP is a technical report that considers the topography, geology, combustible vegetation (fuel types), climatic conditions and fire history of the proposed project location. The plan addresses the following in terms of compliance with applicable codes and regulations including but not limited to: water supply, primary and secondary access, travel time to the nearest fire station, structure setback from property lines, ignition-resistant building features, fire protection systems	Development of a Fire Protection Plan, if necessary.	Prepare plan, if required	Implement measures identified in plan	Implement measures identified in plan	DRP	Future Project Applicants		

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
and equipment, impacts to existing emergency services, defensible space and vegetation management. When impacts are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated. Examples of standard mitigation measures that are typically applied include fire suppression systems, sufficient on-site water storage, inclusion of fire management zones, and funded agreements with fire protection districts.								
Hydrology and Water Quality								
MM HYD-1 All small-scale wind energy systems, temporary meteorological towers, utility-scale ground-mounted solar and wind energy projects, and utility-scale structure-mounted wind energy projects that require a discretionary permit shall be subject to California Environmental Quality Act review, and when impacts to groundwater resources are determined to be potentially significant, evaluation of groundwater resources, such as the preparation of a groundwater resources investigation report, may be required by the Los Angeles County Department of Public Works. The report shall analyze the drawdown of wells and recommend feasible and appropriate project-specific mitigation measures to reduce impacts, such as well monitoring and pumping caps, or requiring water from other sources.	Development of a Groundwater Resources Investigation Report, if necessary.	Prepare plan, if required	Implement measures identified in plan	Implement measures identified in plan	DPW	Future Project Applicants		

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
Noise								
MM NOI-1 Construction Noise and Vibration Study for Utility-Scale Renewable Energy Facilities. During the environmental review process for Conditional Use Permits (CUPs) for future utility-scale ground- and structure-mounted renewable energy facilities and during the environmental review process for Minor CUPs for future utility-scale structure-mounted wind energy facilities, consultation with the County Department of Public Health (DPH) regarding construction-related noise and vibration shall be required. In the event that DPH requires a noise and vibration study, a noise and vibration study shall be conducted. When noise and/or vibration impacts are determined to be significant, feasible and appropriate project-specific mitigation measures as specified by DPH and/or as specified in the noise and vibration study shall be incorporated into the project to the extent practicable. Examples of standard mitigation measures required may include requiring construction equipment to contain noise control features such as shrouds, mufflers, and air-inlet silencers and using mobile sound barriers.	Consultation with the DPH regarding construction-related noise and vibration for future utility-scale ground- and structure-mounted facilities. Preparation of a noise study, if required by the DPH, and development of project-specific measures to reduce any significant noise and/or vibration impacts. Incorporation of feasible measures into project construction.	Consult with DPH; Conduct study if required	Implement measures, if required		DRP -AND- DPH	Future Project Applicants		
MM NOI-2 Operational Noise and Vibration Study for Small-Scale Wind Energy Systems. During the environmental review process for Minor CUPs for future small-scale ground- or structure-mounted wind energy systems, consultation with DPH regarding operational noise and vibration shall be required. In the event that DPH requires a noise and vibration study, a noise and vibration study	Consultation with the DPH regarding operational noise and vibration for future small-scale ground- or structure-mounted wind energy systems. Preparation of a noise study, if required by the DPH, and development of	Consult with DPH; Conduct study if required; Incorporate any project design measures		Implement measures, if required	DRP -AND- DPH	Future Project Applicants		

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
shall be conducted. The noise study shall address A-weighted sound levels as well as low-frequency sound levels anticipated to be generated during operation of the proposed system. When noise impacts are determined to be significant, feasible and appropriate project-specific mitigation measures as specified by DPH and/or as specified in the noise and vibration study shall be incorporated into the project to the extent practicable. Examples of standard mitigation measures required may include revising the turbine layout, curtailing nighttime use, using an alternate turbine manufacturer with a lower noise rating, implementing noise reduction technology, and adding additional setbacks from sensitive receptors.	project-specific measures to reduce any significant noise impacts that were identified in the noise study. Incorporation of feasible measures into project design and operation.							
MM NOI-3 Operational Noise Study for Utility-Scale Renewable Energy Facilities. During the environmental review process for CUPs for future utility-scale ground- and structure-mounted renewable energy facilities and during the environmental review process for Minor CUPs for future utility-scale structure-mounted wind energy facilities, consultation with DPH regarding operation noise shall be required. In the event that DPH requires a noise study, a noise study shall be conducted. For proposed wind energy facilities, the noise study shall include analysis of pure tone noise and address A-weighted sound levels as well as low-frequency sound levels anticipated to be generated during operation of the proposed system. When operational noise impacts are determined to be significant, feasible and appropriate project-	Consultation with the DPH regarding operational noise for future utility-scale ground- and structure-mounted facilities. Preparation of a noise study, if required by the DPH, and development of project-specific measures to reduce any significant noise impacts that were identified in the noise study. Incorporation of feasible measures into project design and operation.	Consult with DPH; Conduct study if required; Incorporate any project design measures		Implement measures, if required	DRP -AND- DPH	Future Project Applicants		

Table 9-1
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Mitigation Timing			Responsible Agency or Party	Monitoring Agency or Party	Completed	
		Pre-Construction	*During Construction*	*Post-Construction*			*Initials*	*Date*
specific mitigation measures as specified by DPH and/or as specified in the noise study shall be incorporated into the project to the extent practicable. Examples of standard mitigation measures required may include use of low-noise-rated transformers, use of an alternative wind turbine manufacturer with a lower noise rating, and project redesign to situate noise-generating equipment away from sensitive receptors.								
Traffic and Circulation								
MM TRF-1 During the environmental review process for future discretionary utility-scale ground-mounted renewable energy facilities, consultation with the County of Los Angeles Department of Public Works (DPW) regarding construction-related traffic shall be required. In the event that DPW requires a traffic study, a traffic study shall be conducted and submitted to DPW. When traffic impacts are determined to be significant, feasible and appropriate project-specific mitigation measures as specified by DPW and/or in the traffic study shall be incorporated into the project. Examples of standard mitigation measures required include designing the project to avoid potential impacts; installing temporary traffic controls near construction sites; ; making physical road improvements; and implementing transportation demand management programs, including encouraging construction workers to carpool.	Consultation with the County of Los Angeles Department of Public Works (DPW) regarding construction-related traffic. Preparation of a traffic study, if required by DPW, and development of project-specific measures to reduce any significant traffic impacts that were identified in the traffic study. Incorporation of feasible measures into project construction.	Consult with DPW; Conduct study if required	Implement measures, if required		DRP -AND- DPW	Future Project Applicants		

DRP: Los Angeles County Department of Regional Planning
DPH: Los Angeles County Department of Public Health
DPW: Los Angeles County Department of Public Works

CHAPTER 10
RESPONSE TO COMMENTS

A draft version of the Environmental Impact Report (EIR) for the proposed project was circulated for public review from February 20, 2015, to April 6, 2015. This chapter of the Final EIR includes a copy of each comment letter provided during the 45-day public review period for the Draft EIR, as well as oral comments that were heard at a public hearing held during the public review period. The County of Los Angeles (County) has prepared responses to each comment and oral comment, which are included in this chapter. Comments have each been given an alphanumeric label, and the individual issues within each comment letter are bracketed and numbered. Responses to common concerns that were brought up in many of the written and oral comments are described in Section 10.1, Global Responses. Written comments received are included and addressed in Section 10.2, Response to Written Comments, and oral comments received during the public hearing are included and addressed in Section 10.3, Response to Oral Comments. In addition to the letters contained in Section 10.2, a number of letters were received after the 45-day public review period. These letters are discussed in Section 10.4, Response to Late Letters.

The County's responses to comments on the Draft EIR represent a good-faith, reasoned effort to address the environmental issues identified by the comments. Under the CEQA Guidelines, the County is required to evaluate and provide written responses to comments received on the Draft EIR (CEQA Guidelines, Section 15088).

10.1 GLOBAL RESPONSES

Because multiple comments covered similar topics, a set of global responses was developed to address these topics in a comprehensive manner.

Proposed Zoning Code Amendments and Existing Regulations

Renewable energy facilities that convert solar energy or wind energy to electricity on a utility scale meet the definition of Electric Generating Plant in the existing County Zoning Ordinance. As such, development standards contained within the current Zoning Code do not address design, environmental, or land use issues that are unique to utility-scale renewable energy facilities. Therefore, with respect to impacts specific to utility-scale solar and wind energy projects, such as glare, noise, and dust, the proposed Zoning Code amendments establish baseline development standards where none currently exist.

Discretionary Review and Ministerial Review

As discussed in Section 3.3.2 of the Draft EIR, the proposed Zoning Code amendments would establish regulations for the following types of renewable energy projects:

- Small-scale structure-mounted solar energy systems
- Small-scale ground-mounted solar energy systems
- Utility-scale structure-mounted solar energy facilities
- Utility-scale structure-mounted wind energy facilities
- Utility-scale ground-mounted solar energy facilities
- Utility-scale ground-mounted wind energy facilities

The proposed Zoning Code amendments would add several regulations to those that currently exist for small-scale wind energy systems and temporary MET towers.

Many of the project types listed above are currently subject to discretionary review and would continue to be subject to discretionary review upon adoption of the proposed Zoning Code amendments. Discretionary review requires (1) CEQA review prior to project approval and (2) a public hearing before a Hearing Officer or the Regional Planning Commission. Decision makers can either choose to approve or deny the project. For projects currently requiring discretionary review, the level of environmental review would not change upon adoption of the proposed Zoning Code amendments. Projects that do not require discretionary approval undergo a ministerial review process. Projects that are permitted through ministerial review are exempt from CEQA per CEQA Guidelines Section 15268. Projects that are ministerially permitted require building and electrical permits as well as any other applicable permits through the County Department of Public Works (DPW) Building and Safety Division (Building and Safety). Such projects could also be subject to permits from other agencies that might have jurisdiction, such as the California Department of Fish and Wildlife.

Table 10-1 below summarizes the types of planning review currently required under the existing Zoning Code and Table 10-2 summarizes the types of planning review that would be required upon approval of the Zoning Code amendments. Dark grey shading in Table 10-2 indicates where the permitting requirements have become more strict (e.g., what is ministerially permitted under current regulations would require discretionary approval under the proposed Zoning Code amendments, or what is currently allowed would become disallowed). Light grey shading in Table 10-2 indicate where the requirements for planning review would be decreased (e.g., what currently requires a discretionary permit would be permitted ministerially under the proposed Zoning Code amendments, or what is currently disallowed would become allowable). No

shading indicates that no change would occur in the type of permit required or in permissibility upon adoption of the proposed Zoning Code amendments.

Table 10-1
Renewable Energy Project Review Requirements (current Zoning Code)

	Zone					
	A-1	*A-2, A-2-H*	*O-S, W*	*R-A, R-1, R-2, R-3, R-4*	*C-H, C-1, C-2, C-3, C-M, C-R, R-R*	*M-1, M-1.5, M-2, M-2.5, D-2*
Small-Scale Renewable Energy Systems						
Small-scale structure-mounted solar energy system	Ministerial	Ministerial	Discretionary in O-S Ministerial in W	Ministerial	Ministerial	Ministerial
Small-scale ground-mounted solar energy system	Ministerial	Ministerial	Discretionary in O-S Ministerial in W	Ministerial	Ministerial	Ministerial
Small-scale wind energy system	Discretionary	Discretionary	Discretionary in O-S Not allowed in W	Discretionary	Not allowed	Not allowed (Discretionary in M-1 and D-2)
Temporary MET Towers						
Temporary MET tower	Director's Review	Director's Review	Not allowed	Director's Review	Not allowed	Not allowed (Director's Review in M-1 and D-2)
Utility-Scale Renewable Energy Facilities						
Utility-scale structure-mounted solar energy facility	Not allowed	Discretionary	Not allowed in O-S Discretionary in W	Not allowed	Discretionary	Ministerial (Discretionary in M-1, M-2.5, D-2)
Utility-scale structure-mounted wind energy facility	Not allowed	Discretionary	Not allowed in O-S Discretionary in W	Not allowed	Discretionary	Ministerial (Discretionary in M-1, M-2.5, D-2)
Utility-scale ground-mounted [1]	Not allowed	Discretionary	Not allowed in O-S Discretionary in W	Not allowed	Discretionary	Ministerial (Discretionary in M-1, M-2.5, D-2)

Notes: MET = meteorological. Director's Review may entail discretionary review.

[1] Utility-scale ground-mounted solar and wind energy facilities are currently allowed in County-designated Significant Ecological Areas, if the project is presented to the Significant Ecological Area Technical Advisory Committee (SEATAC).

Table 10-2
Renewable Energy Project Review Requirements (proposed Zoning Code amendments)

	Zone					
	A-1	*A-2, A-2-H*	*O-S, W*	*R-A, R-1, R-2, R-3, R-4*	*C-H, C-1, C-2, C-3, C-M, C-R, R-R*	*M-1, M-1.5, M-2, M-2.5, D-2*
Small-Scale Renewable Energy Systems						
Small-scale structure-mounted solar energy system	Ministerial	Ministerial	Ministerial (D→M in O-S)	Ministerial	Ministerial	Ministerial
Small-scale ground-mounted solar energy system	Ministerial	Ministerial	Discretionary (M→D in W)	Ministerial	Ministerial	Ministerial
Small-scale wind energy system	No change. Permitting requirements would remain the same as existing conditions.					
Temporary MET Towers						
Temporary MET tower	Discretionary	Discretionary	Discretionary in O-S Not allowed in W	Discretionary	Discretionary	Discretionary
Utility-Scale Renewable Energy Facilities						
Utility-scale structure-mounted solar energy facility	Ministerial (N/A→M)	Ministerial (D→M)	Not allowed (D→N/A in W)	Ministerial[1] (N/A→M)	Ministerial (D→M)	Ministerial (D→M in M-1, M-2.5, D-2)
Utility-scale structure-mounted wind energy facility	Discretionary (N/A→D)	Discretionary	Not allowed (D→N/A in W)	Discretionary (N/A→D)	Discretionary	Discretionary (M→D in all zones except M-1, M-2.5, D-2)
Utility-scale ground-mounted[2]	Not allowed	Discretionary	Not allowed (D→N/A in W)	Not allowed	Discretionary	Discretionary (M→D in all zones except M-1, M-2.5, D-2)

Notes: MET = meteorological; D = Discretionary permit; M = Ministerial permit; N/A = Not allowed
Gray shading = change in the level of planning review and/or permissibility under the proposed Zoning Code amendments (dark gray indicates increased levels of review; light gray indicates decreased levels of review). Changes are summarized below the proposed permit type (left to right: current Zoning Code requirements to proposed Zoning Code amendments).

[1] Utility-scale structure-mounted solar energy facilities would be subject to discretionary review in the R-1 zone, except for projects defined as "small residential rooftop solar energy systems" in Government Code Section 65850.5(j)(3).

[2] It should also be noted that utility-scale ground-mounted solar and wind energy facilities would be prohibited in County-designated Significant Ecological Areas and in Economic Opportunity Areas designated in the Antelope Valley Area Plan.

Programmatic versus Project-Level CEQA Review

As discussed above and indicated in Table 10-2, some types of renewable energy projects would require further discretionary review. Pursuant to CEQA Guidelines Section 15002(i), discretionary actions are subject to CEQA. The Draft EIR for the proposed Zoning Code amendments analyzed projects subject to discretionary review at the programmatic level because

these projects would require additional CEQA review[1] when they are proposed. Programmatic CEQA analysis is described in CEQA Guidelines Section 15168. Per CEQA Guidelines Section 15168, programmatic analysis may be conducted on a series of actions that can be characterized as one large project and are related either (1) geographically, (2) as logical parts in the chain of contemplated action, (3) in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or (4) as individual activities carried out under the same authorizing statutory or regulation authority having generally similar environmental effects which can be mitigated in similar ways. The programmatic analysis contained in this Draft EIR was conducted because projects developed pursuant to the proposed Zoning Code amendments would be connected to the issuance of the regulations in the proposed Zoning Code amendments.

As discussed in Chapter 3.3.3 of the Draft EIR, the proposed Zoning Code amendments do not propose or approve any specific wind energy systems or facilities, utility-scale ground-mounted solar energy facilities, or temporary MET towers, as these types of projects would be subject to further discretionary review and analysis under CEQA. For these types of projects, the EIR does not analyze site-specific impacts of future projects at specific locations and therefore cannot predict with certainty which impacts will occur and what site-specific mitigation measures are appropriate for future projects. Rather, the EIR evaluates impacts of these types of projects at a broader programmatic level, which can be used to tier more detailed environmental documents for individual projects in the future pursuant to CEQA Guidelines Section 15168. "Tiering" refers "to the coverage of general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs or ultimately site-specific EIRs incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared. Tiering is appropriate when the sequence of EIRs is: (a) From a general plan, policy, or program EIR to a . . . site-specific EIR" (CEQA Guidelines Section 15385). As such, site-specific environmental documents prepared for future "second tier" projects would focus on issues specific to the individual project being implemented and would rely on the information in this EIR as appropriate to avoid unnecessary or duplicative analysis.

Implementation Manual

The County Department of Regional Planning (Regional Planning) will develop an implementation manual for the proposed Zoning Code amendments to further clarify its development standards and provisions. The implementation manual will serve as a guide for Regional Planning staff to process permits and to clarify Regional Planning's internal policies and

[1] Some projects, such as solar installations on rooftops of existing buildings or on an existing parking lot under certain conditions as stated in California Public Resources Code Section 21080.35, may be exempt from CEQA.

processes, ensuring that the provisions in the proposed Zoning Code amendments are properly enforced. The implementation manual may also provide sample site-specific conditions that could be incorporated in addition to the standard conditions provided in the proposed Zoning Code amendments. These sample site-specific conditions will further address concerns regarding projects that are subject to further discretionary review and approval.

10.2 RESPONSE TO WRITTEN COMMENTS

The County received comment letters from three state agencies, two regional agencies, four community planning groups, and five organizations (including private entities). Sixteen letters from individual community members were received. Table 10-3 provides an index to the comment letters that were received.

To finalize the EIR for the proposed project, responses have been prepared to comments that were received during the public review period. In accordance with the requirements of CEQA Guidelines Section 15088(b), the County will provide a written response on comments submitted by public agencies to each respective public agency at least 10 days prior to certifying the Final EIR.

Table 10-3
List of Commenters

Letter No.	Name	Address
State Agencies		
Governor's Office of Planning and Research – State Clearinghouse		1400 10th Street, P.O. Box 3044, Sacramento, California 95812
S1	California Department of Fish and Wildlife	3883 Ruffin Road, San Diego, California 92123
S2	California Department of Parks and Recreation, Tehachapi District	15101 Lancaster, Lancaster, California 92536
S3	Department of Water Resources	1416 Ninth Street, Room 641-2, Sacramento, California 95814
Regional Agencies		
R1	Antelope Valley Air Quality Management District	43301 Division Street, Suite 206, Lancaster, California 93535
R2	Lahontan Regional Water Quality Control Board	14440 Civic Drive, Suite 200, Victorville, California 92392
Community Planning Groups		
C1	Antelope Acres Town Council	P.O. Box 6708, Lancaster, California 93539
C2	Three Points – Liebre Mountain Town Council	P.O. Box 76, Lake Hughes, California 93532
C3	Association of Rural Town Councils	P.O. Box 76, Lake Hughes, California 93532
C4	Association of Rural Town Councils	P.O. Box 76, Lake Hughes, California 93532

Table 10-3
List of Commenters

Letter No.	Name	Address
Organizations		
O1	Endangered Habitats League	8424 Santa Monica Boulevard, Suite A 592, Los Angeles, California 90069
O2	Southern California Edison	2244 Walnut Grove Avenue, GO 1 Quad 4C, Rosemead, California 91770
O3	Audubon California	4700 Griffin Avenue, Los Angeles, California 90031
	San Fernando Valley Audubon Society	P.O. Box 7769 Van Nuys, California 91409
O4	Southern California Public Power Authority	1160 Nicole Court, Glendora, California 91740
O5	Los Angeles Department of Water and Power	Box 51111, Los Angeles, California 90051
Individuals		
I1	John Joyce	3413 Soledad Canyon Road, P.O. Box 57, Acton, California 93510
I2	Mark Distaso	4403 Pelona Canyon Road, Acton, California 93510
I3	Jacqueline Ayer	2010 West Avenue K, #701, Lancaster, California 93536
I4	Jacqueline Ayer	2010 West Avenue K, #701, Lancaster, California 93536
I5	Jeff Olesh	None provided
I6	Margaret Rhyne	m.rhyne@verizon.net
I7	Kathleen Trinity	4343 Fairlane Street, Acton, California 93510
I8	Anonymous 1	None provided
I9	Anonymous 2	None provided
I10	Paul Henreid	phenre@gmail.com
I11	Jacqueline Ayer	2010 West Avenue K, #701, Lancaster, California 93536
I12	Esca Smith	Esmith65@avc.edu
I13	Judy Watson	46460 Kings Canyon Road, Lancaster, California 93536
I14	Cindy Bonanno	46307 Kings Canyon Road, Lancaster, California 93536
I15	Jacqueline Ayer	2010 West Avenue K, #701, Lancaster, California 93536
I16	Susan Zahnter	P.O. Box 76, Lake Hughes, California 93532

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STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

April 7, 2015

Jay lee
Los Angeles County
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012

Subject: Renewable Energy Ordinance
SCH#: 2014051016

Dear Jay lee:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on April 6, 2015, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH#	2014051016
Project Title	Renewable Energy Ordinance
Lead Agency	Los Angeles County
Type	EIR Draft EIR
Description	The project consists of amendments to Title 22 of the County Code to establish regulations for the development of small-scale wind and solar energy systems, utility-scale wind and solar energy facilities, and temporary meteorological (MET) towers. The proposed project would provide a set of definitions, procedures and standards for review and permitting of solar, wind energy systems and facilities, and temporary MET towers.

Lead Agency Contact

Name	Jay lee		
Agency	Los Angeles County		
Phone	213 974 6476	*Fax*	
email			
Address	320 W. Temple Street, 13th Floor		
City	Los Angeles	*State* CA	*Zip* 90012

Project Location

County	Los Angeles			
City				
Region				
Lat / Long				
Cross Streets				
Parcel No.				
Township		*Range*	*Section*	*Base*

Proximity to:

Highways	
Airports	
Railways	
Waterways	
Schools	
Land Use	The project is countywide and therefore includes all zoning and land use designations

Project Issues	Agricultural Land; Air Quality; Biological Resources; Geologic/Seismic; Other Issues; Minerals; Water Quality; Landuse; Noise; Public Services; Recreation/Parks; Traffic/Circulation; Aesthetic/Visual; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Population/Housing Balance; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Vegetation; Water Supply; Wetland/Riparian; Wildlife; Growth Inducing; Cumulative Effects
Reviewing Agencies	Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 7; Air Resources Board, Major Industrial Projects; State Water Resources Control Board, Division of Water Quality; California Energy Commission; Native American Heritage Commission; Public Utilities Commission; State Lands Commission; Regional Water Quality Control Bd., Region 6 (So Lake Tahoe)

Date Received 02/19/2015 *Start of Review* 02/19/2015 *End of Review* 04/06/2015

Note: Blanks in data fields result from insufficient information provided by lead agency.

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CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Lahontan Regional Water Quality Control Board

RECEIVED
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STATE CLEARING HOUSE

April 3, 2015

File: Environmental Doc Review
Los Angeles County

Jay Lee
Los Angeles County Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Email: jalee@planning.lacounty.gov

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE LOS ANGELES COUNTY RENEWABLE ENERGY ORDINANCE, LOS ANGELES COUNTY, STATE CLEARINGHOUSE NO. 2014051016

The California Regional Water Quality Control Board, Lahontan Region (Water Board) staff received the Draft Environmental Impact Report (DEIR) for the above-referenced ordinance (Ordinance) on February 23, 2015. The DEIR was prepared by the Los Angeles County Department of Regional Planning (County) and submitted in compliance with provisions of the California Environmental Quality Act (CEQA). The Ordinance will establish regulations, including development standards, for the development of renewable energy projects in unincorporated areas where the County has land use jurisdiction. Water Board staff, acting as a responsible agency, is providing these comments to specify the scope and content of the environmental information germane to our statutory responsibilities pursuant to CEQA Guidelines, California Code of Regulations, title 14, section 15096. Water Board staff commented on the Notice of Preparation of the DEIR in a letter dated June 3, 2014. We appreciate that the DEIR addressed some of our concerns raised in our previous letter, but two issues in that letter were apparently not addressed: (1) promote and provide incentives for use of previously disturbed lands for ground-mounted renewable energy projects, and (2) incorporation of the State Water Resources Control Board policy on use of recycled water, for construction and maintenance of renewable energy projects. Our comments on the DEIR are outlined below.

AUTHORITY

All groundwater and surface waters are considered waters of the State. Surface waters include streams, lakes, ponds, and wetlands, and may be ephemeral, intermittent, or perennial. All waters of the State are protected under California law. State law assigns responsibility for protection of water quality in the Lahontan Region to the Lahontan Water Board. Some waters of the State are also waters of the U.S. The Federal Clean Water Act (CWA) provides additional protection for those waters of the State that are also waters of the U.S.

The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) contains policies that the Water Board uses with other laws and regulations to protect the quality of waters of the State within the Lahontan Region. The Basin Plan sets forth water quality standards for surface water and groundwater of the Region, which include designated beneficial uses as well as narrative and numerical objectives which must be maintained or attained to protect those uses. The Basin Plan can be accessed via the Water Board's web site at http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml.

Los Angeles County is located within the jurisdiction of multiple Regional Water Boards. The Antelope Valley and the watersheds that drain towards the Antelope Valley are within the jurisdiction of the Lahontan Water Board. We request that the DEIR recognize that the Ordinance falls under the jurisdiction of multiple Water Boards and that a copy of the DEIR be made available to the appropriate Water Boards and the State Water Resources Control Board (State Water Board) for review and comment.

RECOMMENDED ELEMENTS TO INCLUDE IN THE ORDINANCE

The goal of the Ordinance is to establish regulations and development standards for small-scale and utility-scale renewable energy projects in unincorporated areas of Los Angeles County. In the high desert, the quantity and quality of water are integral components driving development, especially in the Antelope Valley area. We are encouraged that the County incorporated into the DEIR elements that promote watershed management, support low-impact development (LID), and reduce the effects of hydromodification. We are encouraged that the DEIR discusses rooftop-mounted solar and wind projects, and how these systems would have minimal impact on stormwater run-off and natural drainages.

However, the Ordinance does not address the importance of building ground-mounted solar and wind projects on previously disturbed lands, where feasible, to protect ephemeral watersheds, maintain biological soil crusts, and minimize erosion in desert regions. In addition, the environmental document does not discuss use of recycled water where feasible, for construction and maintenance of solar and wind projects, as encouraged by the State Water Board Recycled Water Policy (July 2009).

Focus Development on Previously Disturbed Lands

We recommend that the County promote and provide incentive for ground-mounted renewable energy development on previously disturbed lands as part of the renewable energy Ordinance, where feasible. Desert ecosystems are fragile. Biological soil crusts are common and provide a variety of functions including soil stabilization and nutrient cycling. When these ecosystems are disturbed, recovery is slow, on the order of decades. To minimize impacts to undisturbed desert lands, we encourage the County to support and promote development and reuse of previously disturbed lands, such as former agricultural lands. Such reuse can benefit environmental resources, including hydrology and water quality, by maintaining relatively undisturbed natural areas and avoiding direct impacts to established habitats and surface waters.

Recycled Water Uses

The State Water Board adopted the Recycled Water Policy in February 2009 (effective May 14, 2009, and amended January 22, 2013). The purpose of the policy is to increase the use of recycled water from municipal wastewater sources, in a manner that implements state

and federal water quality laws, as a means towards achieving sustainable local water supplies. The Recycled Water Policy establishes goals and mandates for recycled water use. The mandates are to increase the use of recycled water from the amount used in 2009 by 200,000 acre-feet per year by 2020 and by 500,000 acre-feet per year by 2030. Incentives for implementing recycled water projects include grant opportunities and priority funding.

In July 2009, the State Water Board adopted General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water (General Permit). Some of the allowable recycled water uses include: landscape irrigation of parks, greenbelts, playgrounds, school yards, athletic fields, golf courses, and cemeteries; dust control for construction activities and road maintenance; mixing concrete; and soil compaction.

The Water Board supports recycled water as a safe alternative to potable water for such approved uses including dust control, road maintenance, and construction. We encourage the County to consider recycled water use as a development standard in their Ordinance. The Los Angeles County Sanitation District treatment facilities in Lancaster and Palmdale both have the technologies to supply project developers with recycled water for both construction and operational needs.

PERMITTING REQUIREMENTS

A number of activities associated with renewable energy development have the potential to impact waters of the State and, therefore, may require permits issued by either the State Water Board or Lahontan Water Board. We note that the DEIR addresses the need to obtain a permit under the State Water Board General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, 20012-006-DWQ for renewable energy projects 1 acre in area and larger. Other required permits may include:

- Recycled water use for landscape irrigation and dust control may require Waste Discharge Requirements (WDRs), issued by the Lahontan Water Board; and

- Streambed alteration and/or discharge of fill material to a surface water, including water diversions, may require a CWA, section 401 water quality certification for impacts to federal waters (waters of the U.S.), or dredge and fill WDRs for impacts to non-federal waters, both issued by the Lahontan Water Board.

We request that the DEIR recognize the potential permits that may be required of project developers, as outlined above. Information regarding these permits, including application forms, can be downloaded from our web site at http://www.waterboards.ca.gov/lahontan/.

Thank you for the opportunity to comment on the DEIR. We are encouraged that the County is taking the initiative to establish long-term planning strategies for renewable energy development. If you have any questions regarding this letter, please contact me at (760) 241-7391 (tbrowne@waterboards.ca.gov) or Patrice Copeland, Senior Engineering Geologist, at (760) 241-7404 (pcopeland@waterboards.ca.gov)..

Tom Browne

Tom Browne, PhD, PE
Water Resource Control Engineer

cc: State Clearinghouse (SCH 2014051016) (state.clearinghouse@opr.ca.gov)
California Department of Fish and Wildlife, South Coast Region (AskR5@wildlife.ca.gov)

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State Clearinghouse

This letter from the State Clearinghouse confirms that the County has complied with the State Clearinghouse review requirements for draft EIRs, pursuant to CEQA. A letter from the Lahontan Regional Water Quality Control Board is attached. This letter is included in this chapter as Letter R2, and the comments contained in this letter are addressed under "Response to Comment Letter R2."

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Comment Letter S1

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
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EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

April 6, 2015

Mr. Jay Lee
Los Angeles County Dept. of Regional Planning
3200West Temple Street, Room 1354
Los Angeles, CA 90012
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Subject: Comments on the Los Angeles County Renewable Energy Ordinance Draft Environmental Impact Report, Los Angeles County; (SCH#2014051016)

The Department of Fish and Wildlife (Department) has reviewed the Draft Environmental Impact Report (DEIR) for amendments to Title 22 of the Los Angeles (L.A.) County Code (Ordinance) to establish regulations for the development of small-scale wind and solar energy systems, utility-scale wind and solar facilities, and temporary meteorological (MET) towers. The proposed Ordinance would provide a set of definitions, procedures and standards for review and permitting of solar, wind energy systems and facilities.

Project Description
Under the proposed project, the Los Angeles County Department of Regional Planning (Lead Agency) would amend Title 22 of the Ordinance and consists of clarifications, deletions and revisions to provide an updated set of definitions, procedures and standards to the Ordinance. The proposed project would:

1. Amend Title 22, Planning and Zoning, Chapter 22.08, Definitions, to add definitions related to renewable energy systems and facilities (e.g. decommissioning, guy wires, small-scale solar energy systems, small-scale wind energy systems, utility-scale ground-mounted renewable energy facilities, utility-scale structure-mounted renewable energy facilities, and temporary MET towers);

2. Amend Title 22, Planning and Zoning, to establish the permitting process for each type of renewable energy system in each zone; and

3. Revise Part 15 of the Zoning Code to create a Renewable Energy section that would establish regulations for:
   a. Small-scale renewable energy systems;
   b. Utility-scale renewable energy facilities; and,
   c. Temporary MET towers.

The provisions of Part 15 would not apply to renewable energy systems and facilities that were approved prior to the effective date of the Zoning Code. However, any subsequent modification or alteration to increase the physical size, height, footprint, or change the type of equipment of previously approved renewable energy systems or facilities would need to comply with the Ordinance.

S1-1

Conserving California's Wildlife Since 1870

Department Jurisdiction
The following statements and comments have been prepared pursuant to the Department's authority as a Trustee Agency with jurisdiction over natural resources affected by the Ordinance (CEQA Guidelines § 15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the Ordinance that fall under the purview of the California Endangered Species Act (CESA, Fish and G. Code § 2050 *et Seq.)* and Fish and Game Code section 1600 *et Seq.* The Department also administers the Natural Community Conservation Planning Act (NCCP). S1-2

Fully Protected Species
Nine fully protected species, susceptible to impacts from renewable energy and transmission development, are known within Los Angeles County (County) including: golden eagle (*Aquila chrysaetos)*, white-tailed kite (*Elanus leucurus*), American peregrine falcon (*Falco peregrinus anatum*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), California condor (*Gymnogyps californianus)*, California black rail (*Laterallus jamaicensis coturniculus*), desert bighorn sheep (*Ovis canadensis nelson*), Mohave tui chub (*Siphateles bicolor mohavensis*), and California least tern (*Sternula antillarum browni*). The Department has jurisdiction over fully protected species of birds, mammals, amphibians, reptiles and fish pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Except as provided in the Fish and Game Code (e.g., for necessary scientific research), take of fully protected species is prohibited and cannot be authorized by the Department. S1-3

CESA Listed and Other Rare Listed Species
Renewable energy projects and transmission lines, regardless of size, has the potential to reduce populations or restrict the range of the following endangered, rare or threatened species (CEQA Guidelines § 15380) which are present within the region: bald eagle (*Haliaeetus leucocephalus*), bank swallow (*Riparia riparia*), California Orcutt grass (*Orcuttia californica)*, Catalina Island mountain-mahogany (*Cercocarpus traskiae*), desert tortoise (*Gopherus agassizii*), Gambel's water cress (*Nasturtium gambelii*), least Bell's vireo (*Vireo bellii pusillus*), Lyon's pentachaeta (*Pentachaeta lyonii*), Mohave ground squirrel (*Xerospermophilus mohavensis*), Mohave tui chub (*Siphateles bicolor mohavensis*), Mt. Gleason paintbrush (*Castilleja gleasoni*), Nevin's barberry (*Berberis nevinii*), salt marsh bird's-beak (*Chloropyron maritimum ssp. Maritimum*), San Clemente Island bedstraw (*Galium catalinense ssp. acrispum*), San Clemente Island bush-mallow (*Malacothamnus clementinus*), San Clemente Island fox (*Urocyon littoralis clementae*), San Clemente Island larkspur (*Delphinium variegatum ssp. kinkiense*), San Clemente Island lotus (*Acmispon dendroideus var. traskiae*), San Clemente Island woodland star (*Lithophragma maximum*), San Fernando Valley spineflower (*Chorizanthe parryi var. Fernandina*), Santa Catalina Island fox (*Urocyon littoralis catalinae*), Santa Susana tarplant (*Deinandra minthornii*), slender-horned spineflower (*Dodecahema leptoceras*), southern mountain yellow-legged frog (*Rana muscosa*), southwestern willow flycatcher (*Empidonax traillii extimus*), Swainson's hawk (*Buteo swainsoni*), thread-leaved brodiaea (*Brodiaea filifolia),* tricolored blackbird (*Agelaius tricolor*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). Additional endangered, rare or threatened species are also known to be present in the region that the Ordinance may impact. S1-4

General Avian Protection
The Department has jurisdiction over actions that may result in the disturbance or destruction of nests, migratory non-game birds or the unauthorized take of CESA-listed avian species. The S1-5

pertinent sections of the Fish and Game Code that protect avian species, their eggs, and nests include sections: 3503, regarding unlawful take of, possession, or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any bird-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory non-game birds). S1-5 Cont.

Department Comments

The Department provided comments on June 2, 2014 to the Ordinance during the Notice of Preparation (NOP) process. The Department appreciates the Lead Agency's consideration of our comments, and incorporation of many of them into the Ordinance. The Department remains concerned about previous comments which were not incorporated. Those concerns are echoed within this correspondence.

The Department is concerned that the baseline assessments and evaluations of potential impacts to biological resources are not included in the administrative actions "by right" (per the Ordinance) or under ministerial actions associated with a Zoning Conformance Review (ZCR). We are also concerned that specific standards, including those for avoiding and minimizing impacts are not included under the ministerial process. The Department offers the following comments and recommendations to assist the Lead Agency in minimizing potential impacts to biological resources are avoided or minimized. S1-6

MET towers

1. Small-scale ground-mounted wind energy systems are not permitted within 300 feet or five times the tallest wind tower height of bat roosting sites, recorded open spaces and publicly designated preserve areas, riparian and wetland areas or within 1 mile of a known golden eagle nest site (Table 3-3 *Environmental Design Considerations)*. As currently proposed, this provision does not apply to small-scale structure-mounted wind energy systems or any meteorological (MET) tower. S1-7

   As previously commented during the NOP process, guy wires (Longcore, 2008) and constant-burn lighting associated with MET towers is a significant source of avian collision and mortality (Gehring, 2009). With this in mind, the Department recommends that the Ordinance require MET towers utilize the identical setback as their respective scale wind turbines described above. S1-8

2. In addition to requiring setbacks for MET towers, the Department recommends that the Ordinance require flashing lights on all MET towers. Per Gehring et al, 50-71% of avian fatalities at guyed communication towers were avoided by removing non-flashing red lights. Due to their potential to significantly impact bird and bat populations, the same avoidance and minimization measures should be applied to the siting of MET towers as those of wind turbines. S1-9

Wind Turbine Setbacks

3. Sections 57, 58, and 59, of 22.44.113 and section 61 of 22.44.144 of the Ordinance requires that the highest point of any small-scale wind energy systems are located at least 50 vertical and 50 horizontal feet from a significant ridgeline..." According to the California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development, several studies have suggested that wind turbines along ridges may significantly impact migrating birds, in part, because migrating birds may have a lower migrating altitude than S1-10

their typical cruising altitude when crossing a ridge or pass. The Department has continued concerns regarding potential avian collisions and migratory disruptions as a direct result of locating wind turbines, small-scale or utility-scale systems within near proximity of ridgelines or migratory paths. For the Sections listed above, the Department recommends adopting the same setback standards specified for small-scale ground-mounted wind energy facilities which are not permitted within 300 feet or five times the tallest wind tower height of bat roosting sites, recorded open spaces, publicly designated preserve areas, riparian and wetland areas or within 1 mile of a known golden eagle nest site.

S1-10 Cont.

Recommendations to the Ordinance and Review Process

4. The Department recommends that the DEIR include a flow chart illustrating the Lead Agency's project review protocol for each solar or wind renewable energy proposal including small-scale structure-mounted systems, small-scale ground-mounted solar energy systems, temporary MET towers, utility-scale structure-mounted facilities, and utility-scale ground-mounted facilities. All applicable processing forms (e.g., ZCR, site plan review, MUP, CUP) should be included as appendices to the flowchart. The forms should indicate whether they have been amended to accommodate the Ordinance in redline and strikeout text.

S1-11

5. Impact BIO-1 identifies that small-scale solar energy systems and utility-scale structure-mounted solar energy facilities would have the potential to have potentially significant impacts before mitigation (DEIR, p. 4.4-46). However, the Ordinance allows small-scale ground-mounted solar energy systems and utility-scale structure-mounted solar energy facilities to be processed under a ZCR. The ZCR does not include an Environmental Assessment Form (similar to a Minor Conditional Use Permit or Conditional Use Permit) which assists in identifying biological resources specific to the project site. Absent site specific knowledge of the potential biological resources, the Department does not believe that mitigation measures addressing potentially significant impacts to biological resources can be reasonable ascertained or avoided under a ZCR. Therefore, the Lead Agency should develop and adopt feasible biological mitigation measures to address projects subject to a ZCR review process.

S1-12

6. Section 22.08.040 D includes "site restoration" within the definition of "Decommissioning". The Department appreciates the inclusion of a restoration component of the Ordinance; however, the Department recommends the Lead Agency include "the restoration of the species, habitats, natural hydrology, and functions of the project site equal to or better than pre-project condition as documented in a baseline environmental report" within the definition of Decommissioning.

S1-13

Consistency with Existing Laws and Regulations

7. Table 3-3 *Environmental Design Considerations* does not identify biological concerns for small-scale solar energy systems. However, under the Ordinance small-scale solar energy systems could disturb as much as 2.5 acres of habitat supporting special status species (e.g., State-threatened or -endangered, species of special concern, or rare listings). While the DEIR states that small-scale solar energy projects would require CEQA review in more sensitive areas (e.g., open space zones and watershed zones) where avoidance minimization and mitigation measures for special-status species would be applied, theses mitigation measures would not apply to areas outside of open space and watershed zones. The Department is concerned that a project proponent may misconstrue the

S1-14

Ordinance as allowing impacts to fish and wildlife resources which are protected by other statutes or laws. The Department recommends that the Lead Agency clearly incorporate a disclaimer to the end user notifying proponent of relevant laws and regulations including Fish and Game Code section 2050 *et seq.*, Fish and Game Code section 3503, Fish and Game Code section 3503.5, Fish and Game Code section 1600 *et seq.,* State fully protected species (Fish and G. Code §§ 3511, 4700, 5050, and 5515) and the California native plant protection act (Fish and G. Code § 1900*et Seq.)*.

S1-14 Cont.

Cumulative Impacts

8. The DEIR indicates that it is programmatic in nature and that certain subsequent renewable energy projects would require discretionary review permits thereby triggering CEQA review. The DEIR also acknowledges that the Ordinance may directly, indirectly, or cumulatively result in significant impacts. However, the Ordinance allows small-scale solar and certain utility-scale structure mounted solar without discretionary permits or CEQA review if they meet the requirements of the Zoning Code amendments with three exceptions (p. 68, *2.3. Scope of the EIR*).

"Alternatively, the proposed project would allow for the development of small-scale solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review if they meet the requirements of the proposed Zoning Code amendments, with the following exceptions: (1) future small-scale ground-mounted systems proposed in Open Space (O-S) or Watershed (W) zones would require a Minor Conditional Use Permit (CUP) and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed; (2) future utility-scale structure-mounted solar energy facilities would be prohibited in O-S and W zones; and (3) future utility-scale structure-mounted solar energy facilities proposed in Single-Family Residence (R-I) zones would require a CUP and would therefore undergo future CEQA review on a project-specific level at the time the discretionary permit is processed. Therefore, the environmental review completed as part of this EIR is prepared at a project-specific level for these components that do not require further CEQA review using the information available from the proposed Zoning Code amendments and knowledge of such systems and facilities that have already been developed in the County or other jurisdictions."

S1-15

This condition allows the administrative or ministerial approval of projects with three exceptions. Per the Ordinance, small-scale ground-mounted solar energy systems allow a maximum lot disturbance of 2.5 acres which, absent the exceptions identified above, allows the development without further CEQA review. The Department is concerned that the 2.5 acre maximum allowable footprint of ground-mounted small-scale solar energy systems is too large an area of impact to be processed without review or a discretionary action. The Lead Agency should demonstrate that 2.5 acres does not exceed a reasonable need for small-scale ground-mounted solar energy systems. To reduce potential cumulative impacts, the condition should be revised to specify that the ministerial approval applies to "development of small-scale *structure-mounted* solar energy systems and utility-scale structure-mounted solar energy facilities without discretionary permits or CEQA review…"

9. Page 78 of section 3.3.3, Key Renewable Energy Resource Areas states "The majority of the unincorporated urban islands are built out, so land available for renewable energy development would primarily consist of rooftops, backyard areas, and pockets of undeveloped hillsides." The Department is concerned that traditionally undeveloped open spaces would be developed under ministerial approval without regard to their regional importance to local biota, their habitats and movements. The Department recommends the DEIR describe the Ordinance's consistency with Los Angeles County General Plan, Conservation and Open Space Element (1980): "Many Biotic resources of the County have been lost due to the encroachment of urban and agricultural development. These resources are especially vulnerable to destruction as a result of unmanaged development". S1-16

10. Facilities with relatively small impacts should not be exempted from mitigating on an individual basis when their cumulative impact over the duration of the Ordinance may be significant. Should the Ordinance continue to allow ground disturbing projects under an administrative process the Department recommends the Lead Agency track the total acreage of sensitive habitat impacted under the administrative and ministerial processes and provide and track appropriate mitigation. Impacts and mitigation should be made available to the public and the Department. S1-17

Preservation

11. The Natural Community Conservation Plan (NCCP) Act is a planning tool which promotes coordination and cooperation among public agencies, land owners, and other private interests by promoting the conservation of natural habitats to ensure that a project's mitigation is roughly proportional to those of the project's impacts. Under an NCCP, an established preserve system provides surety that areas of natural habitats intended to offset development impacts are provided necessary to ensure that the public's fish and wildlife resources are protected. Owing to the fact unincorporated Los Angeles County does not have a draft or approved NCCP or established preserve system, the public nor Department have reasonable assurances that administrative or ministerial projects pursuant the Ordinance would appropriately minimize and offset impacts to fish and wildlife resources. The Department recommends that the DEIR include a discussion of how the incremental impacts to biological resources resulting from administrative and ministerial projects are comprehensively mitigated. S1-18

Transmission

12. In accordance with section 3.3.2.3 Standards for Utility-Scale Ground-Mounted Renewable Energy Facilities "... all equipment and accessory structures related to the facility, including but not limited to solar collector arrays, wind turbines, mounting posts, substation, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures." This approach allows very little influence on the siting of appurtenances, including transmission lines, which could result in miles of linear impacts to biological resources. The scope of the impacts associated with the supporting infrastructure cannot be reasonably anticipated. Given the breadth of the potential impacts, the Department recommends defining limits for appurtenance impacts. Without having significant preservation commitments prior to implementing such an ordinance, the Department recommends that the Lead Agency does not adopt the Ordinance without first identifying a comprehensive mitigation strategy capable of absorbing the varied impacts that would result from adopting the Ordinance. S1-19

13. On-site and off-site transmission lines are required to be placed underground to the satisfaction of the Los Angeles County Department of Public Works, except where above ground crossings are required. Although the Ordinance does not specify a trigger for when an above ground transmission line would be required (the Department recommends that a trigger mechanism provided in the Ordinance). It should be stipulated that the provision shall not be construed to direct unauthorized Take (Fish a G. Code § 86) of any fully protected (Fish and G. Code §§ 3511, 4700, 5050, and 5515), endangered, rare, or threatened species (CEQA Guidelines § 15380). S1-20

Coastal Impacts

14. The DEIR specifies that "…the Coastal Islands are limited in the availability of both land and structures for ground-mounted and structure mounted energy. However, small systems could be implemented on structures and on the small areas of ground that may be available" (p. 75, 3.2.3 Planning Area Context). Given the limited availability of land within the Coastal Islands, the Department believes that only structure-mounted energy generation would be appropriate for coastal islands. S1-21

Thank you for the opportunity to comment on the L.A. County Renewable Energy Ordinance, DEIR. Questions regarding this letter and further coordination regarding these issues should be directed to Eric Weiss, Senior Environmental Scientist at Eric.Weiss@wildlife.ca.gov or (858) 467-4289. S1-22

Sincerely,

Betty J. Courtney
Environmental Program Manager I
South Coast Region

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Response to Comment Letter S1

California Department of Fish and Wildlife
Betty J. Courtney, Environmental Program Manager I
April 6, 2015

S1-1 This comment consists of a summary of the proposed project and thus does not require a response pertaining to the proposed project or to the Draft EIR. However, it should be noted that the following language has been inserted into the Section 3.3.2 of the EIR as a result of an additional provision to the applicability of the proposed Zoning Code amendments: "Additionally, any modification(s) that would convert a project generating energy primarily for on-site use into a project generating energy primarily for off-site use or a project generating energy primarily for off-site use into a project generating energy primarily for on-site use would need to comply with the proposed Zoning Code amendments."

S1-2 This comment describes the jurisdiction of the California Department of Fish and Wildlife (CDFW) relative to the proposed project, therefore, no response pertaining to the proposed project or to the Draft EIR is required.

S1-3 This comment lists the fully protected species known to occur within the County. Section 4.4.1 of the Draft EIR acknowledges that a variety of special-status species are known to occur within the County, including fully protected species.

S1-4 This comment lists numerous endangered, rare, or threatened species known to occur within the County that may have the potential to be affected by the "renewable energy project and transmission lines, regardless of the size." Section 4.4.1 of the Draft EIR acknowledges that a variety of special-status species are known to occur within the County and may be affected by the proposed project.

S1-5 The comment consists of a description of the protections for avian species that are included in the Fish and Game Code. It also states that CDFW has "jurisdiction over actions that may result in the disturbance or destruction of certain avian species and nests." This comment summarizes existing regulations; as such, no response pertaining to the proposed project or to the Draft EIR is required.

S1-6 This comment expresses a concern about the potential effects of future renewable energy projects that would be permitted by right or allowed upon obtaining a Zoning Conformance Review. This concern is more explicitly described in comments S1-12, S1-14, S1-15, S1-16, S1-17, and S1-18. Corresponding responses are provided below.

S1-7 This comment attempts to summarize the provisions of the proposed Zoning Code amendments relative to regulations for small-scale wind energy systems. Although generally an accurate summary, the comment states that small-scale ground-mounted wind energy systems are not permitted within 300 feet or five times the tallest wind tower height of "recorded open spaces." This buffer is actually from recorded open space "easements."

The proposed Zoning Code amendments have been revised subsequent to the release of the Draft EIR; however, the bird and bat protection measures described in this comment would continue to apply to small-scale ground-mounted wind energy systems.

As noted in the comment, these measures would not apply to temporary MET towers. This is because temporary MET towers are used to measure winds prior to construction of a small-scale wind energy system or utility-scale wind energy facility. Such projects would be a temporary use. Furthermore, it is anticipated that temporary MET towers would only be constructed where a future small-scale wind energy system or utility-scale wind energy facility is being considered, thus reducing the possibility for development of temporary MET towers in any area where wind energy projects would be prohibited. In the event that potentially significant impacts would occur to birds, bats, or other biological resources as a result of a future temporary MET tower, such effects would be identified during project-level CEQA review, and mitigation measures would be identified if necessary.

Additionally, as noted in this comment, the proposed bird and bat protection measures would not apply to structure-mounted wind energy systems. Because these systems would be constructed on a support structure, such as a building or a carport, they would be located on top of existing development and would involve little to no ground disturbance, thereby reducing the overall impact of such projects on habitat. Furthermore, one of the objectives of the proposed project is to encourage structure-mounted renewable energy projects. In the event that potentially significant impacts would occur to birds, bats, or other biological resources as a result of a future structure-mounted wind energy project, such effects would be identified during project-level CEQA review, and mitigation measures would be identified if necessary.

S1-8 This comment also iterates a previous concern about guy wires and lighting on temporary MET towers related to avian collision and mortality. The potential for avian species to be attracted to or otherwise impacted by the wires, equipment, and vegetation near wind turbines is discussed in the Avian and Bat Risks and Indirect Impacts sections of Criterion A and B in the Section 4.4.4 of the Draft EIR. The

attraction of species to modified habitats around facilities was identified as a potential indirect impact to bird species. Additionally, Section 4.4.4 of the Draft EIR has been modified to account for lighting on wind turbines and temporary MET towers as another potential attractor. Per CEQA Guidelines Section 15088.5, this revision does not constitute a significant new change resulting in a need to recirculate the EIR. Subsequent to the release of the Draft EIR, provisions were added to the proposed Zoning Code amendments that prohibit guy wires on both small-scale wind energy systems and temporary MET towers. Guy wires would also be prohibited on utility-scale ground-mounted wind energy facilities.

The recommendation to require the same setbacks for temporary MET towers will be included in the Final EIR for review and consideration by decision makers. See Response S1-7 for an explanation of why the same setbacks were not applied for temporary MET towers in the proposed Zoning Code amendments. Additionally, mitigation measures are provided in the EIR to ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future temporary MET towers (see MM BIO-1).

S1-9 The recommendation to require flashing lights on all MET towers will be included in the Final EIR for review and consideration by decision makers. See Response S1-8 for a discussion of temporary MET towers and potential effects to avian and bat species, including how these effects were addressed in the Draft EIR.

It is noted that the proposed Zoning Code amendments have been revised subsequent to the release of the Draft EIR. Under the revised Zoning Code amendments, the regulations for small-scale wind energy systems and temporary MET towers that are currently in place would remain in place upon project approval. Changes to existing lighting standards for small-scale wind energy systems and temporary MET towers would not occur. See the Preface of this Final EIR for details about why the existing provisions for small-scale wind energy systems would remain in place under the proposed project.

S1-10 As noted above, the proposed Zoning Code amendments have been revised subsequent to the release of the Draft EIR. Under these revisions, the existing ridgeline protection measures for small-scale wind energy systems would remain in place and would also apply to utility-scale structure-mounted wind energy facilities. This existing provision requires that no small-scale wind energy system (or utility-scale structure-mounted wind energy facility) shall be placed or constructed in such a way that it silhouettes against the skyline above any major ridgeline when viewed from any designated major, secondary, or limited secondary highway on the County

Highway Plan, from any designated scenic highway, or from any significantly inhabited area, as determined by the Director of Regional Planning. As used in Part 15, the term "major ridgeline" is defined as any ridgeline that surrounds or visually dominates a landscape, as determined by the Director of Regional Planning, due to the following criteria: its size in relation to the hillside or mountain terrain or which it is a part; its silhouetting appearance against the sky or appearance as a significant natural backdrop; its proximity to and visibility from existing development or major transportation corridors; or, its significance as an ecological, historical, or cultural resource, including a ridgeline that provides a natural buffer between communities or one that is part of a park or trails system. Furthermore, the top of a wind energy system or facility shall be located at least 25 vertical feet below the top of any adjacent major ridgeline (as defined above) and shall be located at least 100 horizontal feet from any adjacent major ridgeline. This existing provision would protect ridgelines with scenic, ecological, recreational, or cultural value. This existing provision also represents an increase in the horizontal setback relative to the originally proposed Zoning Code amendments that were released with the Draft EIR. Ridgeline protection measures for small-scale wind energy systems cannot be made more restrictive than what is currently required in Part 15 (see the Preface of this Final EIR for details; see also Government Code Section 65893 et seq.).

The changes to the proposed Zoning Code amendments also include changes to the ridgeline protection provisions for utility-scale ground-mounted wind energy facilities. These provisions would require the following:

"Significant ridgelines. The highest point of a utility-scale ground-mounted wind energy facility shall be located at least 50 vertical feet and 300 horizontal feet from a significant ridgeline identified in the General Plan, in an applicable Area or Community Plan, or within an applicable Community Standards District."

and

"Slope setbacks in Hillside Management Areas. The project shall map the location of Hillside Management Area, as defined in the Zoning Code, located within a 500-foot radius of any proposed utility-scale ground-mounted wind energy facility where the system exceeds 50 vertical feet as measured from the base of the slope where it equals or exceeds 25% slope. For any of these mapped areas, all utility-scale ground-mounted wind energy facilities shall be located at least 300 horizontal feet from the maximum elevations, which are the highest points where the land slopes away, and the highest point of the utility-scale ground-mounted wind energy facility shall not protrude above these maximum elevations."

S1-11 This comment requests a flow chart illustrating the County's project review protocol for each type of renewable energy project. Section 3.3.3 of the EIR explains the permitting requirements under the proposed Zoning Code amendments for each type of renewable energy project type that is addressed in the proposed Zoning Code amendments. Additionally, the application materials that are required for a Zoning Conformance Review, a Minor Conditional Use Permit (CUP), and a CUP are included in the proposed Zoning Code amendments, which were attached to the Draft EIR. The revised version of the Zoning Code is attached to this Final EIR as Appendix A. The proposed project does not involve any changes to the applicable processing forms, with the exception of changes to the ZCR application form that would result from MM BIO-3 (see Response S1-14 below for a description of this measure). Furthermore, as described in Section 10.1, Regional Planning will develop an internal implementation manual to help guide Regional Planning staff through the review protocol for renewable energy projects, as established in the proposed Zoning Code amendments. This would ensure that the provisions in the proposed Zoning Code amendments are properly enforced. However, the recommendation to provide a flow chart will be included in the Final EIR for review and consideration by decision makers.

S1-12 This comment requests that feasible mitigation be identified for small-scale solar energy systems and utility-scale structure-mounted solar energy facilities. The comment also identifies that small-scale ground-mounted solar energy systems and utility-scale structure-mounted solar energy facilities would be permitted under a Zoning Conformance Review. The proposed Zoning Code amendments have been revised to allow utility-scale structure-mounted solar energy facilities in most zones without a Zoning Conformance Review (i.e., their permitting level would be equivalent to that of a small-scale structure-mounted solar energy system). See the Preface of this Final EIR for a discussion of why this change was made. This change does not alter the significance determinations given in the Draft EIR. Per CEQA Guidelines Section 15088.5, this correction does not constitute a significant new change resulting in a need to recirculate the EIR.

As stated in this comment, small-scale and structure-mounted solar energy projects would be allowed with ministerial permits in most zones. As provided for in CEQA Guidelines Section 15126.4(2), "in the case of the adoption of a plan, policy, regulation, or other public project, mitigation measures can be incorporated into the plan, policy, regulation, or project design." In accordance with this section of the CEQA Guidelines, the County has applied minimization and avoidance measures for

small-scale and structure-mounted solar energy projects through the development standards of the proposed Zoning Code amendments. These are described as follows:

- Under the proposed Zoning Code amendments, small-scale ground-mounted solar energy systems would require discretionary review in the O-S and W zones. Requiring discretionary review in the O-S and W zones is more stringent than what is currently allowed, as such projects are currently allowed in the W zone with a ministerial permit and with no limits to their size. The majority of the San Gabriel Mountains are within the W zone, and the O-S zone encompasses smaller areas scattered primarily throughout the Santa Monica Mountains, the San Gabriel Mountains, and the Antelope Valley. Because the O-S and W zones allow for fewer types of development than the County's commercial, residential, agricultural, and industrial zones, these zones contain a concentration of open space, including habitat and natural communities. Therefore, because the small-scale solar energy systems involving ground disturbance would require project-level CEQA review in some of the County's more biologically sensitive areas, such projects would be required, on a project level, to incorporate measures to minimize, avoid, and/or mitigate impacts to special-status species, habitat for special-status species, and natural communities. Furthermore, the proposed project would provide size limitations for such projects where there currently are none.
- Small-scale ground-mounted solar energy systems would be limited in size to 25% of a lot or 2.5 acres, whichever is smaller. Furthermore, such projects would be required by definition to provide energy primarily for on-site use. As such, the size of the solar energy system would be proportional to the energy requirements of the on-site land use. The size of the ground-mounted solar energy system would vary depending on the on-site land use, amount of vacant land available to accommodate solar panels, availability of structure-mounted installation options, solar potential of the site, and other factors. Because the systems would provide for on-site uses only, projects would generally not extend to 2.5 acres in size. See Response S1-15 for further discussion on the proposed size limits for small-scale solar energy systems.
- The height of a small-scale ground-mounted solar energy system would be limited to 15 feet; the height of structure-mounted solar energy systems and facilities would be limited to 5 feet above what is allowed in the applicable zone.
- Setbacks from the perimeter of the roof would be required for utility-scale structure-mounted solar energy facilities.
- Concentrated solar thermal collectors would be prohibited.

The County has determined that these proposed development standards would be feasibly verified during ministerial permitting. As such, under CEQA Guidelines Section 15126.4(2), they constitute fully enforceable measures that would be directly incorporated into County policy. However, as indicated by the commenter, the EIR concluded that such measures would not reduce the effects of the small-scale and structure-mounted solar energy projects to below a level of significance for some issue areas, such as biological resources. Applying mitigation measures that would require discretion or further investigation of project sites by County staff beyond what is required for issuance of ministerial permits would be contrary to one of the objectives of the proposed project, which is to "encourage the development of small-scale and structure-mounted renewable energy systems and facilities through a streamlined and standardized permit review process" and would therefore not be feasible. [2] Due to the infeasibility of such mitigation measures, the County has provided minimization and avoidance measures as part of the proposed Zoning Code amendments for small-scale solar energy systems and utility-scale structure-mounted solar energy facilities. Subsequent to the release of the Draft EIR, the County also incorporated MM BIO-3, which would apply to small-scale ground-mounted solar energy systems and would be feasibly implemented as part of Regional Planning's ministerial permitting process (see Response S1-14).

In accordance with CEQA Guidelines Section 15126.6, the EIR presents and analyzes an alternative (the Reduced Small-Scale Solar Energy Systems Alternative) that would lessen the significant effects of small-scale and structure-mounted solar energy projects (see Chapter 6 of the Draft EIR). Additionally, the EIR provides mitigation measures for future projects that would be subject to discretionary review. For any small-scale ground-mounted solar energy system requiring discretionary review, mitigation is provided in the EIR to ensure that biological impacts are adequately evaluated and that appropriate measures are applied (see MM BIO-1). As described above, discretionary review would be required for such systems proposed in the O-S or W zone and systems that are proposed to be larger than the maximum size limit. MM BIO-1 provides recommendations for standard mitigation measures that can be applied to these future projects if significant impacts are identified during CEQA

[2] This conclusion is supported by the findings of San Diego Citizenry Group v. County of San Diego (Aug. 26, 2013) 219 Cal.App.4th 1. In this case, impact avoidance measures were built into a new zoning ordinance for the County of San Diego in order to mitigate the impacts of ministerial permits. The court concluded that additional mitigation measures would be infeasible because they would require the issuance of discretionary permits, which was inconsistent with the core objective of the project—to streamline the issuance of certain permits.

review. The following recommended measures are particularly relevant to solar energy projects:

- Establish buffers of a minimum of 100 feet between solar panels and the edge of existing lakes, reservoirs, wetlands, playas, and other water features.
- Establish buffers of a minimum of 100 feet between solar panels and the edge of existing lakes, reservoirs, wetlands, playas, and other water features.
- For significant impacts to sensitive species, natural communities, or ecological processes (like wildlife movement or hydrological processes) resulting from ground disturbance impacts associated with ground-mounted renewable energy facilities, compensatory mitigation would generally involve one or a combination of the following actions: On or off-site habitat preservation, habitat restoration/enhancement, long-term habitat management activities, and/or species translocations.
- For impacts to federal or state-listed species from ground-mounted renewable energy facilities, incidental take authorization would be required from the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife.
- For impacts to jurisdictional wetlands and waters from ground-mounted renewable energy facilities, permits and/or approvals would be required from the appropriate regulatory agencies with jurisdiction over the wetlands and waters.
- For potential impacts to avian species related to reflection/refraction of light from solar projects (referred to as the "lake effect"), solar projects sited away from existing lakes, reservoirs, wetlands, playas, and other water features would have a reduced potential to attract waterfowl and other bird species and a reduced potential to impact these species from collision with panels; therefore, projects sited adjacent to existing lakes, reservoirs, wetlands, playas, and other water features or areas where bird use determined to be high and the risk of avian collision with panels is considered high should incorporate anti-reflective or low-glare solar panels or design the configuration of solar panels so that they do not mimic natural waterbodies (e.g., avoid large contiguous areas of solar panels; intersperse areas of panels with areas of no panels).

After application of MM BIO-1, if a future project subject to discretionary review would still have a potentially significant effect involving avian collision with panels, MM BIO-2 would be required, as stated in the Draft EIR. MM BIO-2 requires the preparation of a Bird Conservation Strategy for submittal and approval by the County of Los Angeles and the U.S. Fish and Wildlife Service. The Bird Conservation Strategy would be required to

describe avoidance, minimization, monitoring, and/or compensatory mitigation measures that would offset the adverse effects of bird collision.

S1-13 This comment consists of a recommendation to add a description of site restoration to the proposed definition of "Decommissioning" that would be part of the proposed Zoning Code amendments. This recommendation will be included in the Final EIR for review and consideration of decision makers.

The proposed Zoning Code amendments include a number of requirements for decommissioning that would be specific to renewable energy projects. As part of the application materials for a CUP, future utility-scale ground-mounted projects would be required provide a decommissioning plan. The conditions of approval for such projects would also include numerous specifications to ensure the performance of the decommissioning plan. Additionally, as stated in the proposed conditions of approval, the decommissioning plan would be required to be prepared to the satisfaction of the County through the Director of Public Works and Director of Regional Planning. As such, the County would ensure restoration of the species, habitats, natural hydrology, and functions of the project site to pre-project conditions or better and would ensure that specifications for site restoration are included in the decommissioning plan. Furthermore, mitigation is provided in Section 4.3 of the EIR to require decommissioning plans for discretionary renewable energy projects to include restoration of disturbed areas with native vegetation at the end of the project's life (see MM AQ-2).

As required by CEQA, the EIR for the proposed Zoning Code amendments addresses all phases of future projects developed pursuant to the Zoning Code amendments. As such, the environmental effects of decommissioning are captured in the analysis within the Draft EIR.

S1-14 This comment states that Table 3-2, Environmental Design Considerations, in the Draft EIR does not identify any design considerations under the category of biological resources for small-scale solar energy systems. The environmental categories listed in Table 3-2 are generalizations that were included to aid members of the public in reviewing the EIR. As discussed in Response S1-12, a number of measures and approval requirements designed to protect biological resources have been incorporated into the proposed Zoning Code amendments for small-scale ground-mounted solar energy systems.

This comment also expresses concern that project applicants may misconstrue the proposed Zoning Code amendments as authorizing violations of laws protecting fish

and wildlife resources. The comment recommends that the County notify project applicants of other relevant laws and regulations. The proposed Zoning Code amendments provide that a proposed small-scale solar energy system must be compliant with all relevant laws, regardless of any notice provided. Additionally, in response to the recommendation provided in this comment, the County has incorporated the following mitigation measure in the Final EIR:

MM BIO-3 Ministerial permits for small-scale ground-mounted solar energy systems will include a notice to the permittee explicitly stating that additional state and federal regulations may apply to the construction and operation of the small-scale ground-mounted solar energy system including, but not limited to, U.S. Endangered Species Act, the California Endangered Species Act, California Native Plant Protection Act, and the California Fish and Game Code.

MM BIO-3 has been incorporated as a revision in Section 4.4.6 of the EIR and in Chapter 9. Per CEQA Guidelines Section 15088.5, this revision does not constitute a significant new change resulting in a need to recirculate the EIR.

S1-15 The commenter requests that the County demonstrate that a 2.5-acre maximum allowable size for small-scale ground-mounted solar energy systems does not exceed a reasonable need for small-scale ground-mounted solar energy systems. The commenter subsequently requests that only small-scale structure-mounted and utility-scale structure-mounted solar energy systems be allowed without discretionary permits and that small-scale ground-mounted solar energy systems should be subject to discretionary approval. These two concerns are addressed separately below.

Size of Small-Scale Ground-Mounted Solar Energy Systems

The proposed Zoning Code amendments establish a maximum lot coverage of 25% of the parcel or 2.5 acres, whichever is lesser, for small-scale ground-mounted solar energy systems. This wide range in size is provided because such systems may support single-family residences as well as commercial and industrial uses. By definition, such systems must provide primarily for on-site uses, and systems would be sized accordingly. Additionally, applicants would not be financially incentivized to construct on-site systems that exceed the on-site energy demand. As stated in Section 3.3.3 of the Draft EIR, typical residential solar energy systems range from 3 to 10 kW. Depending on the solar module, each kilowatt requires roughly 70 square feet of mounting area for a ground-mounted system (California Solar Electric Company 2014). Therefore, ground-mounted systems used for residential purposes will

typically range from 210 to 700 square feet, depending on amount of energy needed, efficiencies of the system, and type of solar module (see the California Solar Electric Company website at http://www.californiasolarco.com/faq.html). This equates to approximately 0.005 to 0.02 acres. As such, in single-family residential zones, the maximum lot coverage of 2.5 acres would not typically be reached. Furthermore, in the unincorporated areas of the Antelope Valley (the largest contiguous area over which the County has jurisdiction), the average parcel size is 2.5 acres. As such, the average size of a small-scale solar energy system that could be constructed in the Antelope Valley is 0.6 acres (25% of 2.5 acres). Decreasing the maximum size of such systems would not be consistent with the project objective for encouraging small-scale and structure-mounted renewable energy, as it would limit the energy generating potential for on-site use. The maximum limit of 2.5 acres or 25% of the parcel (whichever is less) is intended to prevent any future energy intensive land uses located on large, partially vacant lots from establishing a solar energy system that is larger than 2.5 acres but that still falls within the definition of a small-scale solar energy system. For such land uses that are energy intensive, establishing a cap in the size of an on-site ground-mounted solar energy system is intended to encourage such uses to construct structure-mounted solar energy systems instead of ground-mounted solar energy systems. The maximum size that is established for small-scale ground-mounted solar energy systems minimizes ground disturbance to the extent feasible while still ensuring that the proposed project is consistent with the County's objective of encouraging development of small-scale renewable energy systems.

Ministerial Permits

It should be noted that small-scale ground-mounted solar energy systems are currently allowed in the following zones with a ministerial permit: light agriculture, heavy agriculture, commercial, industrial, and watershed. Furthermore, under the current Zoning Code, such systems are not limited in size. Theoretically, in many zones, an applicant is currently allowed to build a solar energy system that covers an entire parcel, so long as the project meets the development standards of that zone (setbacks, height, etc.). As such, the proposed project would provide a restriction in the size of all small-scale ground-mounted solar energy systems where there currently are no restrictions aside from those of the base zone. The analysis in the Draft EIR was conservatively conducted under the assumption that the proposed project would potentially result in an increased number of renewable energy projects within the County due to streamlined and standardized permitting. However, the only change in the level of review and approval (i.e., ministerial versus discretionary) that would occur under the proposed project for small-scale ground-mounted solar energy

systems is that small-scale ground-mounted systems would require discretionary review in the W zone, where they currently are allowed with a ministerial permit.

Requiring discretionary review for all small-scale ground-mounted solar energy systems would be contrary to the project objectives, one of which is to "encourage the development of small-scale and structure-mounted renewable energy systems and facilities through a streamlined and standardized permit review process." As shown in Table 10-2, the proposed Zoning Code amendments would generally reduce permitting requirements for small-scale and structure-mounted projects (with the exception of small-scale ground-mounted solar energy) and would increase permitting requirements for utility-scale ground-mounted facilities. As such, while the proposed project would streamline and standardize the permitting and development standards for renewable energy projects, these permitting requirements and development standards were designed to particularly incentivize small-scale and structure-mounted projects, in accordance with the project objectives. Adding discretionary review to small-scale ground-mounted solar energy systems would not meet this objective and would be contrary to the underlying goal of incentivizing small-scale and structure-mounted projects relative to utility-scale ground-mounted projects.

S1-16 In this comment, CDFW expresses concern that the ministerially allowable small-scale ground-mounted solar energy systems would result in development within open space areas without discretionary review. CDFW subsequently requests that the Draft EIR analyze the proposed project's consistency with a statement from the County's 1980 General Plan that describes how biotic resources are often lost due to encroachment and unmanaged development.

In addition to the measures that have been incorporated into the proposed Zoning Code amendments (see Response S1-12), other County policies would contribute to limiting the development of small-scale ground-mounted solar energy facilities in potentially sensitive areas, including the revised Hillside Management Areas Ordinance (approved in March 2015 as part of the General Plan Update), which would require projects located in Hillside Management Areas and involving 15,000 cubic yards or more of cut and fill to obtain a CUP. (See Figure 4.1-1 in the EIR for the areas of the County that are within a Hillside Management Area.) The General Plan Update, along with the revised Hillside Management Ordinance, is anticipated be officially adopted in July 2015. The revised Hillside Management Ordinance would go into effect at that time.

The proposed project, in addition to future renewable energy projects, are subject to the General Plan, applicable community plans, area plans, local coastal plans, and specific plans. The analysis in the EIR concluded that the proposed project would be consistent with the County's land use plans.

S1-17 The comment pertains to cumulative impacts of ground-disturbing project that would be allowed with a ministerial permit (i.e., small-scale ground-mounted solar energy systems). The commenter recommends tracking the total acreage of sensitive habitat affected by such systems and providing and tracking appropriate mitigation. The County currently monitors impacts to SEAs (which cover more than 176,000 square miles in Los Angeles County and contain the County's most important biological resources) through an implementation program and will continue to monitor renewable energy development as part of evaluating the overall health of each SEA.

This comment states that the proposed Zoning Code amendments would allow ground-disturbing projects under a ministerial permitting process. It is noted that the County's Zoning Code currently allows for a variety of projects involving ground disturbance without discretionary approval, and that other counties across California allow ground-disturbing projects without discretionary approval. For example, both San Diego County and Marin County allow small wind turbines with a ministerial permit. As described in Response S1-15, under the current Zoning Code there are no size restrictions specific to small-scale ground-mounted solar energy systems, aside from the regulations of the base zone. As such, the proposed project would provide a restriction in the size of all small-scale ground-mounted solar energy systems where there currently are no restrictions aside from those of the base zone. While the proposed project seeks to encourage small-scale and structure-mounted renewable energy development, it also imposes standards that are not currently in the Zoning Code to ameliorate the environmental effects of such projects.

The environmental effects of small-scale ground-mounted solar energy systems were evaluated in this EIR. While small-scale ground-mounted solar energy systems would typically be small in size (see Response S1-15), the environmental analysis in the EIR was conducted under worst-case-scenario assumptions relative to the size of such projects. For this reason, the analysis in the EIR concluded that small-scale ground-mounted solar energy systems have the potential to result in significant effects on biological resources. County decision makers will determine whether these potential effects are acceptable in light of the benefits of the proposed project.

The cumulative effects of renewable energy development in the County, in conjunction with other types of development in the County and in surrounding jurisdictions, is evaluated in Chapter 5 of this EIR. The analysis in Chapter 5 identified several cumulatively significant impacts to biological resources. While mitigation is identified in the EIR to reduce the effects of the proposed project (see MM BIO-1, MM BIO-2, and MM BIO-3), the EIR conservatively determined that even after mitigation, impacts to biological resources could be potentially significant.

S1-18 This comment states that the Draft EIR should include a discussion of how the incremental impacts to biological resources resulting from ministerially approved projects are comprehensively mitigated. This recommendation will be included in the Final EIR for review and consideration by decision makers.

The EIR for the proposed Zoning Code amendments analyzes the environmental effects of ministerially approved projects at the project level (see Section 10.1). For biological resources, potentially significant effects were identified under several of the criteria in the County's CEQA Environmental Checklist Form. As described in Response S1-17, the analysis and significance determinations in the EIR are conservative and are based on the worst case scenario relative to the size of such projects. However, as described in Response S1-15, such projects would typically be small in size. As described in Response S1-12, minimization and avoidance measures have been incorporated into the proposed Zoning Code amendments to address potential effects of small-scale ground-mounted solar energy systems while implementing the project objectives.

S1-19 This comment pertains to utility-scale ground-mounted renewable energy facilities and the potential for impacts to occur as a result of appurtenances such as transmission lines. The EIR analyzes these projects at the programmatic level, as they would be subject to further discretionary approval and CEQA review. The analysis in the EIR is inclusive of the accessory structures and appurtenances. Therefore, the impacts of such structures and appurtenances have been analyzed at the programmatic level. Because the effects of accessory structures and appurtenances would vary greatly based on the size of the facility and where it is located in the County, further project-specific and site-specific analysis would occur at the project level.

It should be noted that utility-scale ground-mounted renewable energy facilities are currently allowed in the County. The proposed project would implement more stringent permitting requirements and development standards for such projects. For example, under the current Zoning Code, such projects are allowed in some industrial

zones with a ministerial permit. The proposed project would ensure that all utility-scale ground-mounted projects are evaluated under CEQA for potentially significant impacts. In addition to the permitting requirements, development standards, findings, and conditions of approval that would be required for such facilities under the proposed Zoning Code amendments, the EIR provides mitigation to ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future utility-scale ground-mounted renewable energy facilities (see MM BIO-1).

S1-20 This comment states that the proposed Zoning Code amendments do not provide a trigger for when undergrounding of transmission lines would be required. However, the proposed Zoning Code amendments state that undergrounding transmission lines would be required for utility-scale ground-mounted renewable energy facilities as a condition of approval. As such, no trigger is required for undergrounding, as it would be required by the proposed Zoning Code amendments. The undergrounding process would be subject to a variety of measures involving dust control and minimization of erosion. Exceptions to the requirement for undergrounding are where above-ground crossings are required (i.e., the California Aqueduct) and where the permittee obtains a modification. Modifications to the standards of the proposed Zoning Code amendments can be requested as part of a Minor Conditional Use Permit (CUP) or CUP for future utility-scale projects if the applicant is able to make the findings for such a modification as listed in the proposed Zoning Code amendments (see Appendix A). One of these findings is that "Due to topographic or physical features of the site, strict compliance with all of the required standards would substantially and unreasonably interfere with the establishment of the proposed development on the subject property." This finding addresses the issue of infeasibility in the event that a future project site were to contain a topographic or physical feature that would preclude the project from strictly complying with the proposed Zoning Code amendments. Aside from required above-ground crossings and/or obtaining a modification, transmission lines would be undergrounded.

The effects of future utility-scale ground-mounted renewable energy projects and all wind energy projects would be subject to further discretionary review and CEQA review. The site-specific and project-specific environmental effects of future projects, including the construction and operation of transmission lines and the undergrounding process, would be addressed on a project-by-project basis and applicable regulations would be identified at that time. As such, the provision for undergrounding transmission lines would not authorize Take. During the project-specific environmental review process, potential effects to special-status species would be identified, and permittees would be required to engage with CDFW for Take

permits as necessary. Additionally, the EIR provides mitigation to ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future utility-scale ground-mounted renewable energy facilities (see MM BIO-1).

S1-21 This comment provides the recommendation that only structure-mounted renewable energy projects should be allowed in the Coastal Islands Planning Area (consisting of Santa Catalina Island and San Clemente Island). This recommendation will be included in the Final EIR for review and approval by the decision makers. Clarifications have been made in the Final EIR stating that Santa Catalina Island would not be subject to the proposed Zoning Code amendments (see the Preface of this Final EIR). Per CEQA Guidelines Section 15088.5, this clarification in the EIR does not constitute a significant new change resulting in a need to recirculate the EIR.

The Draft EIR evaluates the effects of the proposed project on the environment, including the effects of implementing renewable energy systems and facilities within San Clemente Island. It should be noted that development of renewable energy in the Coastal Islands Planning Area would be subject to the requirements of the applicable Local Coastal Plan.

S1-22 This comment concludes the letter; as such, no response pertaining to the proposed project or to the Draft EIR is required.

Comment Letter S2

State of California • Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
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Edmund G. Brown, Jr., *Governor*
Lisa Ann L. Mangat, Acting *Director*

April 6, 2015

Jay Lee
Department of Regional Planning
320 West Temple St, Room 1354
Los Angeles, CA 90012

RE: Draft Environmental Impact Report (DEIR) SCH #2014051016 for Los Angeles County's Renewable Energy Ordinance

Dear Mr. Lee,

The Tehachapi District of the California Department of Parks and Recreation (State Parks) appreciates the opportunity to comment on the Draft Environmental Impact Report for the County's Renewable Energy Ordinance.

State Parks is a State Agency as defined by the California Environmental Quality Act (CEQA) § 21082.1, a Trustee Agency as used by CEQA, its Guidelines and as defined by CCR § 15386 for the resources affected by this proposed project. Our mission is to provide for the health, inspiration, and education of the people of California by helping preserve the state's extraordinary biodiversity, protecting its most valued natural and cultural resources, and creating opportunities for high quality outdoor recreation. S2-1

As the governmental entity responsible for the stewardship of the following State Parks:

Antelope Valley California Poppy Natural Reserve
Antelope Valley Indian Museum State Historic Park
Arthur B. Ripley Desert Woodlands State Park
Saddleback Butte State Park

We have a strong interest and concern about contemplated alterations of land use adjacent to these State Parks. The long-term health of the State Parks are dependent on the health of the area's ecosystems because the biotic boundaries of these State Parks extend beyond its jurisdictional boundaries and must be managed with an eye towards regional concerns.

We have detailed our concerns and comments below.

State Parks recommends that the County consider only alternatives which avoid direct and indirect impacts to the above mentioned State Parks and other critical publicly and privately protected conservation lands within the Western Mojave Desert in order to avoid habitat fragmentation and degradation of natural and visual resource values. S2-2

State Parks are by definition, areas of outstanding scenic or natural character, containing significant historical, archaeological, ecological, geological, or other similar values. The purpose of State Parks is to preserve outstanding natural, scenic, and cultural values, indigenous aquatic and terrestrial fauna and flora, and the most significant examples of ecological regions of California. Therefore, by their very nature parks, once degraded by intrusive influences, cannot be easily replaced.

We recommend that the Reduced Utility –Scale Solar and Wind Energy Facilities Alternative be adopted as the preferred plan for the County's Renewable Energy Ordinance.

S2-2 Cont.

BIOLOGICAL
Foraging Habitat – Fragmentation

We are concerned that Utility–Scale Wind and Solar Energy projects could significantly impact the State Parks by interrupting wildlife movement corridors and by removing foraging and nesting habitats for wildlife that also use those lands. Disruption of movement patterns by proposed projects could alter essential ecosystem functions, such as predator-prey relationships, gene flow, pollination and seed-dispersal, competitive or mutualistic relationships among species. It is our expert opinion if core habitat areas become islands with no connecting landscape to allow movement of species, they will not be able to continue to support the animals and plants that currently reside within them.

The Department is concerned with the unavoidable adverse impacts of habitat, including the loss of sensitive plant communities, which contains a conspicuous display of wildflowers and other annual grasslands (Antelope Valley California Poppy Natural Reserve, Antelope Valley Indian Museum State Historic Park, Arthur B. Ripley Desert Woodland State Park and Saddleback Butte State Park).

This habitat is extremely important due to its location of being adjacent to the State Parks. These lands are used for foraging, dispersal and cover by small and large mammals, foraging raptors and other wildlife.

This permanent unavoidable adverse impact will result an irreversible change that will have a direct adverse effect to vegetation communities that are currently being used and are occupied by special-status species including, but not limited to: the Mojave desert tortoise, Mohave ground squirrel, American badger, silvery legless lizard, coast horned lizard, western burrowing owl, loggerhead shrike, Le Conte's thrasher, and other birds and raptors protected by the Migratory Bird Treaty Act and various California Fish and Game Codes.

S2-3

Development of renewable energy facilities and associated infrastructure will contribute to the establishment and spread of weed species which are already a major threat to desert ecosystems.

We are concerned that construction activities and soil disturbance will introduce new noxious weeds that may spread to the State Parks. Resource management policies for State Parks direct us to preserve and restore indigenous plants and animals, while systematically removing populations of exotics. We believe that the spread of invasive

S2-4

plants such as Bermuda grass (*Cynodon dactylon*), erodium, Mediterranean barley (*Hordeum marinum*), fescue (*Vulpia* spp.), Mediterranean grass, Russian thistle (*Salsola tragus*), and red brome from the proposed projects could be a major threat to the State Parks that could affect many special-status plant and wildlife species within the State Parks.

This is a significant and unavoidable impact. We request that no proposed projects be located adjacent to the State Parks. Additional lands should be purchased to tigate these concerns.

S2-4 Cont.

LAND USE

Based on our review of the DEIR we are pleased that County's Renewable Energy Ordinance will be consistent with the relevant goals and policies of the County's Draft Antelope Valley Area Plan, including:

Policy COS 13.1: Direct utility-scale renewable energy production facilities, such as solar facilities, to locations where environmental, noise, and visual impacts will be minimized.

Policy COS 13.5: Where development of utility-scale renewable energy production facilities cannot avoid sensitive biotic communities, require open space dedication within Significant Ecological Areas as a mitigation measure.

Policy COS 13.6: Ensure that all utility-scale renewable energy production facilities, such as solar facilities, do not create land use conflicts with adjacent agricultural lands or existing residential areas in the vicinity. Require buffering and appropriate development standards to minimize potential conflicts.

Policy COS 13.7: Limit the aesthetic impacts of utility-scale renewable energy production facilities to preserve rural character.

Policy COS 13.8: Coordinate with other jurisdictions to plan for utility-scale renewable energy production facilities in order to minimize impacts to sensitive biotic communities and existing residential areas.

Goal COS 14: Energy infrastructure that is sensitive to the scenic qualities of the Antelope Valley and minimizes potential environmental impacts.

Policy COS 14.1: Require that new transmission lines be placed underground whenever physically feasible.

We support that the ordinance will prohibit all utility-scale renewable energy facilities and small-scale wind energy systems within the open space areas and in designated Significant Ecological Areas within the Antelope Valley.

S2-5

VISUAL RESOURCES

We are concerned that Utility –Scale Wind and Solar Energy projects will cause substantial degradation of the existing visual character to the visual resources of several State Parks within the West Mojave and Eastern Slopes Ecoregion Subarea including but not limited to: Antelope Valley California Poppy Natural Reserve, Antelope Valley

S2-6

Indian Museum State Historic Park, Arthur B. Ripley Desert Woodland State Park and Saddleback Butte State Park.

Once again based on our review of the DEIR we are pleased that County's Renewable Energy Ordinance will be consistent with the relevant goals and policies of the County's Draft Antelope Valley Area Plan, which seeks to reduce impacts to scenic vistas by setting aside extensive areas for conservation that include open space designations within the Angeles National Forest and the implementation of policies that preserve views by preventing the introduction of urban land uses in SEAs, near scenic hillsides, on ridgelines and within Scenic Resource Areas.

S2-6 Cont.

MANDATORY FINDINGS OF SIGNIFICANCE

The Department recommends the adoption of the Reduced Utility –Scale Solar and Wind Energy Facilities Alternative as the preferred plan for the DEIR. This will help reduce the impacts to State Parks, which will avoid the interruption of an important habitat linkage and protect open spaces areas, preserve important significant scenic resources and will consistent with land use policies and goals of the Department and the Draft Antelope Valley Area Plan.

Once again, we appreciate the opportunity to comment on the proposed DEIR. As we have outlined in our comments, there are a number of significant issues related to the State Parks. It is important that all land use decisions adjacent to the State Parks be compatible with the preservation of the tremendous resources found there. For further discussion, please feel free to contact me or Russ Dingman, Staff Environmental Planner, at (661) 724-2380.

S2-7

Sincerely,

Kathy Weatherman
District Superintendent

Response to Comment Letter S2

California Department of Parks and Recreation, Tehachapi District
Kathy Weatherman, District Superintendent
April 6, 2015

S2-1 This comment is introductory in nature and does not raise any specific concerns. However, the commenter notes that the California Department of Parks and Recreation (State Parks) has interest and concern with respect to alterations of land use adjacent to State Parks, as the biological resources within State Parks often extend beyond State Park's boundaries.

The proposed project consists of amendments to the Zoning Code. The proposed project does not allow by right any future renewable energy projects that would result in land use conversion (i.e., ground-mounted projects) that are not currently allowable under the existing County regulations (see Table 10-2).

S2-2 The commenter states that State Parks recommends that the County consider alternatives that avoid direct and indirect impacts to State Parks and other publicly and privately protected conservation lands. The commenter recommends that the County adopt the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative, which is described and analyzed in the Draft EIR.

The County acknowledges the commenter's support for the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative. County decision makers have the approval authority for the proposed project and will consider all information in the Final EIR and related documents before making a decision on the project. The information in this comment will be in the Final EIR for review and consideration by the decision makers.

S2-3 This comment consists of a description of biological resources within State Parks and in the vicinity of State Parks that could be affected if utility-scale wind and solar energy projects are developed. It also describes potential impacts that could occur, such as effects to wildlife movement, wildlife corridors, habitat removal and fragmentation, loss of sensitive communities, obstruction to gene flow, and effects of special-status species. The effects of future renewable energy projects on regional habitat linkages and wildlife movement are discussed in Sections 4.4.1 and Section 4.4.4 (Criterion D) of the Draft EIR and impacts related to habitat loss and sensitive species are discussed in Section 4.4.4 (Criteria A and B).

Utility-scale projects, with the exception of utility-scale structure-mounted solar energy facilities, are evaluated in the Draft EIR at the programmatic level (see Section 10.1 for a description of programmatic analysis). Significant and unavoidable effects were identified to biological resources in the Draft EIR. Future utility-scale ground-mounted solar energy projects and all wind energy projects would undergo further discretionary review and CEQA review on a project-by-project basis. As such, while the Draft EIR contains a programmatic analysis of the potential effects of such projects, site-specific analysis would be conducted on a project-by-project basis as future projects are proposed. It cannot be anticipated at this time whether such projects would be proposed within proximity to a State Park; however, the Zoning Code amendments would prohibit utility-scale ground-mounted facilities from the A-1 zone, the O-S and W zones, the R zones, and SEAs. All of the State Parks listed in comment S2-1 are partially bordered by A-1 zoned property where utility-scale ground-mounted facilities would be prohibited. Future project-level CEQA review and discretionary approval processes would identify site-specific effects, such as the effects to biological resources located within or in the vicinity of any nearby State Parks. State Parks would be notified in accordance with CEQA of any future renewable energy projects occurring adjacent to State Park units.

S2-4 This comment consists of concerns related to the establishment and spread of noxious weed species in State Parks and how renewable energy projects may exacerbate this issue. It is assumed that this comment pertains primarily to ground-mounted projects. The effects of future projects developed pursuant to the proposed Zoning Code amendments on biological resources are addressed in Section 4.4 of the Draft EIR. The discussion of impacts to biological resources includes the potential for some future projects to introduce invasive plant species during construction and operation. These effects were identified as being associated with small-scale ground-mounted solar energy projects and utility-scale ground-mounted renewable energy projects. The analysis in the Draft EIR is consistent with the statement in this comment that future projects could result in a significant and unavoidable impact. (However, in the Draft EIR, this impact determination was made for numerous reasons, not just due to the potential for the spread of invasive species.) For future utility-scale ground-mounted renewable energy projects, project-specific discretionary approval and associated CEQA review would be required. At that time, site-specific effects, such as impacts to special status plant species within State Parks, would be identified and evaluated for their significance under CEQA. While the proposed Zoning Code amendments include provisions to preserve native vegetation on the sites of future utility-scale ground-mounted renewable energy projects, additional project-specific mitigation measures or design features could be implemented on a project-by-project

basis, depending on the level of impacts identified during CEQA review. With respect to small-scale ground-mounted solar energy systems, which are allowed without further discretionary review in most zones, avoidance and minimization measures have been incorporated into the provisions of the proposed Zoning Code amendments and would also be required in association with other County regulations and policies, as well as state regulations, that are in place to protect biological resources from development. For information about the measures that such systems would be subject to, see Response S1-12 (describes avoidance and minimization measures incorporated into the proposed Zoning Code amendments); S1-14 (describes adherence to state requirements); and S1-16 (describes other applicable County policies).

S2-5 This comment consists of support for certain provisions in the proposed Zoning Code amendments. As such, no response pertaining to the proposed project or to the Draft EIR is necessary. However, it is noted that the last sentence in this comment is no longer accurate due to changes that were made to the proposed Zoning Code amendments subsequent to the release of the Draft EIR. As described in the Preface of this Final EIR, regulations for small-scale wind energy systems and temporary MET towers would not change relative to existing conditions (with the exception of several new bird and bat protection measures that would go into effect upon project approval). As such, the regulations for siting of small-scale wind energy systems would remain the same as existing regulatory conditions, meaning that such systems would be allowable upon discretionary approval in the O-S zone. See the Preface of this Final EIR for details about why the existing provisions for small-scale wind energy systems would remain in place under the proposed project.

S2-6 This comment consists of concerns regarding the effects of utility-scale renewable energy projects on the existing visual character and visual resources of State Parks and also consists of a concurrence with certain aspects of the proposed Zoning Code amendments. Aesthetic impacts of utility-scale renewable energy projects are addressed in Section 4.1 of the Draft EIR. As noted in this comment, the proposed Zoning Code amendments include a variety of baseline standards to address visual impacts for renewable energy projects throughout the County (currently, such baseline standards do not exist specifically for renewable energy projects). As stated in response to comment S2-3, zoning restrictions would prohibit utility-scale ground-mounted renewable energy facilities in areas zoned as A-1, O-S, W, and residential and within SEAs, which would limit the potential for visual impacts adjacent to many of the State Park units. Furthermore, the Antelope Valley Area Plan (approved by the Board of Supervisors in November 2014 and anticipated to be

officially adopted by July 2015) sets forth policies that aim to minimize visual impacts to the State Parks within in the Antelope Valley. In areas where utility-scale projects could be developed, visual impacts to recreational users at State Parks would be evaluated on project-by-project basis per CEQA, since further discretionary review would be required.

S2-7 The commenter recommends adoption of the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative, which is described and analyzed in the Draft EIR. The commenter states that this would help reduce impacts to State Parks. The County acknowledges the commenter's support for the Reduced Utility-Scale Solar and Wind Energy Facilities Alternative. This recommendation will be included in the Final EIR for review and consideration by the decision makers.

The commenter also states that the letter outlines a number of significant issues related to State Parks. These concerns are addressed in the responses above.

Comment Letter S3

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

April 21, 2015

Mr. Jay Lee
Department of Regional Planning
Los Angeles County
320 West Temple Street, Room 1354
Los Angeles, California 90012

Draft Environmental Impact Report for the Los Angeles County Renewable Energy Ordinance, Unincorporated Portions of Los Angeles County, Southern Field Division, SCH2014051016

Dear Mr. Lee:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (EIR) for the Los Angeles County renewable energy ordinance (Project). The Project describes proposed amendments to the County code to establish regulations for the development of small-scale wind and solar energy systems, utility-scale wind and solar energy facilities, and temporary meteorological towers in unincorporated areas of the Los Angeles County. The regulations would allow, with exceptions, the development of utility-scale structure-mounted solar energy facilities without California Environmental Quality Act (CEQA) review if the facilities meet the requirements of the proposed zoning code amendments. These exceptions include the following:

- Future small-scale ground-mounted systems proposed in open space or watershed zones which would require conditional use permit (CUP) and would therefore undergo CEQA review
- Future utility-scale structure-mounted solar energy facilities would be prohibited in the zones mentioned above
- Future utility-scale structure-mounted solar energy facilities proposed in single-family residence zones would require CUP and would therefore undergo CEQA review

S3-1

California Department of Water Resources has the following concerns with regards to the Project:

1. The Project should address conditions in which chemical dust control will be allowed, as well as approval of nontoxic soil stabilizers by the Regional Water Board. A buffer shall be required to insure no chemicals enter the State Water Project California Aqueduct (Aqueduct) from dust control measures and herbicide application.

S3-2

2. The Aqueduct was not listed in the table addressing set back requirements for solar and wind projects. Swainson's hawks nests are located near the Aqueduct. Setbacks shall be addressed in the document to protect nesting Swainson's hawks. The set backs shall also be sufficient to ensure wildlife impacted by renewable energy projects do not end up within the Department of Water Resources (DWR) right of way, causing them to be viewed as take by DWR. The renewable energy projects shall address changes in movement by wildlife that may force them to use DWR right of way, where they may be in danger of falling into the aqueduct or may cause more interaction with DWR employees.

   In addition, the set backs shall not interfere with routine maintenance and operations of DWR.

S3-3

3. DWR has experienced impacts to the State Water Project (SWP) due to changes in run-off from development on adjacent land. Please include the SWP, including associated ditches, sand traps, storage areas, spoil piles, and culverts as potential areas of impact when proposing any erosion and sedimentation control plans near the SWP right of way. Under California Government Code 66455.1, DWR shall be consulted prior to construction or maintenance activities within close proximity to the DWR right-of-way or when activities that could compromise the safety of state employees in the area. Activities include, but are not limited to, transmission wire installation, pull site, and turbine installation.

S3-4

   Any development that affects DWR SWP is required to be reviewed and approved by DWR through its encroachment permit process. The guidelines to DWR's encroachment permit process can be found at:

   http://www.water.ca.gov/engineering/Services/Real_Estate/Encroach_Rel/

S3-5

4. The Aqueduct is a reliable source of water and should be considered the same way lakes and rivers are in the EIR. It serves as a water source to many species, including bats and waterfowl, in the impacted area. The final EIR shall address the following:

   a. Speed of turbines to reduce impacts to bats that may be attempting to access the Aqueduct.
   b. Mitigation measures that will be done to reduce impacts to water birds, including species of special concern, accessing the Aqueduct.

S3-6

Please provide DWR with a copy of the final environmental documentation when it becomes available for public review. Any future correspondence relating to this proposed project shall be sent to:

Leroy Ellinghouse, Chief
SWP Encroachments Section
Division of Operations and Maintenance
Department of Water Resources
1416 Ninth Street, Room 641-2
Sacramento, California 95814

If you have any questions, please contact Leroy Ellinghouse, Chief of the SWP Encroachments Section, at (916) 653-7168 or Jonathan Canuela at (916) 653-5095.

S3-7

Sincerely,

for

David M. Samson, Chief
State Water Project Operations Support Office
Division of Operations and Maintenance

cc: State Clearinghouse
Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, California 95814

bcc: Sheree Edwards, 641-1
Megan Evans, Southern Field Division
Jaime deSantiago, Southern Field Division
John Bunce, Southern Field Division
Nadell Gayou, 901 P Street

Response to Comment Letter S3

Department of Water Resources
David M. Samson, Chief
April 2, 2015

S3-1 This comment summarizes several provisions of the proposed Zoning Code amendment. As such, no response pertaining to the proposed project or to the Draft EIR is required. It is noted that several changes have been made in the proposed Zoning Code amendments subsequent to the release of the Draft EIR. These changes are summarized in the Preface of this EIR and any associated updates to the EIR have been made throughout the EIR in strikeout and underline text (see Chapter 4 of this Final EIR). As described in the Preface, the changes to the proposed Zoning Code amendments do not alter the significance determinations given in the EIR. Per CEQA Guidelines Section 15088.5, the changes to the project and the associated corrections in the EIR do not constitute a significant new change resulting in a need to recirculate the EIR.

S3-2 This comment pertains to use of chemical dust control products. As discussed in Section 4.3.2 of the EIR, the Antelope Valley Air Quality Management District's (AVAQMD's) Rule 403, Fugitive Dust, requires fugitive dust sources to implement best available control measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. Similar to the provisions of the proposed Zoning Code amendments, the AVAQMD recommends non-toxic dust suppressants as one of several recommended control measures for unpaved roads (AVAQMD Rule 403(c)(12)(a)). As such, the proposed project would not introduce a new dust control measure that is not already currently allowed and recommended for use within the County. It is also noted that under the proposed Zoning Code, use of chemical dust control measures would not be a requirement. The condition of approval that includes soil binders also allows for the use of "application of a similarly effective material to control dust such as use of gravel."

Section 4.9 of the Draft EIR addresses the water quality impacts of utility-scale ground-mounted renewable energy projects (the projects to which this condition of approval would apply) at the programmatic level. While numerous indirect effects of these projects are discussed, including impacts to water supply, the indirect effects of non-toxic soil binders and chemical stabilizers are not specifically included, since they are currently approved for use and are regulated by the Regional Water Quality

Control Board, the California Air Resources Board, and the US Environmental Protection Agency.

S3-3 This comment pertains to Swainson's hawk nests located near the Aqueduct. The characteristics of Swainson's hawks and potential effects to this species that could be caused by renewable energy projects are summarized in Section 4.4.1 of the EIR. Section 4.4.4 (Criterion A and B) in the EIR describes the potential for a variety of hawk species (includes Swainson's hawk) to be affected by renewable energy projects, particularly utility-scale ground-mounted facilities.

The proposed Zoning Code amendments would apply to the unincorporated areas of the County. Setbacks for specific features within the County, such as the Aqueduct or any other utility conveyance, are considered site-specific issues and would be addressed on a project-by-project basis. Renewable energy projects subject to further discretionary review (i.e., utility-scale ground-mounted projects, small-scale wind energy systems, and temporary MET towers) would be required to evaluate project-specific impacts to biological resources, including nesting Swainson's hawk, during the CEQA process. Project-specific and site-specific mitigation measures would be identified for such projects as necessary. For projects that could be developed without discretionary review (i.e., small-scale solar energy systems and some utility-scale solar energy systems), any nesting Swainson's hawk on or near the site would be under the protection of the Migratory Bird Treaty Act, as well as state requirements that protect special-status species.

Furthermore, the Aqueduct is flanked on both sides by an O-S zone buffer. No utility-scale projects are currently allowed in the O-S zone, and this prohibition would continue under the proposed project. As such, only small-scale projects would be allowed to occur adjacent to the Aqueduct, and only small-scale structure-mounted solar energy projects (i.e., rooftop solar) would be allowed to occur within the O-S zone without discretionary approval. Additionally, the areas designated as O-S that border the Aqueduct are surrounded by the A-1 and A-2 zones. Utility-scale ground-mounted facilities are currently prohibited from the A-1 zone and require discretionary approval in the A-2 zone. These requirements would continue under the proposed project. Under the proposed project, small-scale solar energy systems and utility-scale structure-mounted solar energy systems would be allowed to occur within the A-1 and A-2 zones without discretionary approval. Small-scale wind energy systems, temporary MET towers, and utility-scale structure-mounted wind energy facilities would be allowed but would require project-specific discretionary approval (see Table 10-1 and Table 10-2 for more information about the permitting requirements for each zone and which permitting requirements would change upon

project approval). As such, the existing zoning, prohibitions, and permitting requirements would limit the types of projects that would be allowed to occur adjacent to the Aqueduct or within the immediate vicinity of the Aqueduct. Any additional setbacks that may be required for an approved renewable energy project would be applied on a case-by-case basis.

S3-4 The EIR provides analysis for the unincorporated County as a whole; therefore, the analysis within the EIR does not consider specific effects to individual water bodies, as it cannot be anticipated at this time whether future projects would be proposed within proximity to a specific water body such as the Aqueduct. Furthermore, the Aqueduct occupies a relatively small portion of land when compared with the geographical extent of the unincorporated County.

While the EIR does not identify waterbody-specific effects, it does contain an environmental analysis of the potential impacts of future renewable energy projects relative to erosion and runoff. Sections 4.6 and 4.9 of the EIR address erosion, and Section 4.9 of the EIR also addresses potential runoff and water quality effects. The analysis in the Draft EIR determined that the proposed project could have a potentially significant effect relative to soil erosion. Projects subject to further discretionary approval would be subject to project-specific CEQA review (this includes all wind energy projects, all utility-scale ground-mounted solar energy projects, and small-scale ground-mounted solar energy projects that are proposed in the O-S and W zones). Project-specific mitigation measures may be required to address site-specific impacts related to erosion and runoff and would be identified on a project-by-project basis. Projects that would not be subject to further discretionary review consist of small-scale structure-mounted solar energy systems, small-scale ground-mounted solar energy systems proposed outside of the O-S and W zones, and most utility-scale structure-mounted solar energy facilities. The County has applied minimization and avoidance measures for small-scale and structure-mounted solar energy projects through the development standards of the proposed Zoning Code amendments. Response S1-12 contains a description of these measures.

Furthermore, as specified in this comment, projects developed pursuant to the proposed Zoning Code amendments would be required to comply with California Government Code 66455.1.

S3-5 The proposed Zoning Code amendments do not grant any right-of-way encroachments. As such, any future projects requiring right-of-way access would need to obtain access from the relevant property owner.

S3-6 Section 4.4 of the Draft EIR addresses the potential biological effects of future projects developed pursuant to the proposed Zoning Code amendments. Specifically, effects involving water and water birds are addressed under Criteria A and B (effects to special-status species and sensitive natural communities) and Criterion D (effects on wildlife movement, corridors, and nursery sites). The analysis under these three criteria encompasses effects related to waterbodies in general. Therefore, this analysis is inclusive of any waterbody within the unincorporated County that would have the potential to be affected by a future renewable energy project developed pursuant to the proposed Zoning Code amendments. The analysis in the Draft EIR identified potentially significant effects to biological resources. Avoidance and minimization measures have been provided in the form of mitigation measures (MM BIO-1 and MM BIO-2) and in the form of development standards and conditions of approval that have been incorporated into the proposed Zoning Code amendments. For descriptions of these measures, see Response S1-12 (small-scale ground-mounted solar energy systems and structure-mounted solar energy systems); Response O1-2 (wind energy projects); and O1-10 (utility-scale ground-mounted solar energy facilities).

S3-7 The Department of Water Resources will be provided with future correspondence relating to this proposed project at the address specified in this comment. It should be noted that the Department of Water Resources would be notified of future renewable energy projects requiring discretionary approval, as required under CEQA.

Comment Letter R1

Antelope Valley Air Quality Management District
43301 Division St., Suite 206
Lancaster, CA 93535-4649

661.723.8070
Fax 661.723.3450

Eldon Heaston, Executive Director
In reply, please refer to AV0315/022

March 31, 2015

Jay Lee
Department of Regional Planning
320 West Temple Street
Room 1354
Los Angeles, CA 90012

Subject: Draft Environmental Impact Report (SCH# 2014051016) Los Angeles County Renewable Energy Ordinance Project

Dear Mr. Lee:

The Antelope Valley Air Quality Management District (AVAQMD) has reviewed the Draft Environmental Impact Report (DEIR) for Los Angeles County Renewable Energy Ordinance Project. The AVAQMD concurs with the proposed analysis of potential impacts in the Air Quality section. AVAQMD Designations and Classifications are available on the AVAQMD web site at: http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=2908 .

R1-1

If you have any questions regarding this letter, please contact me at (661) 723-8070 x2.

Sincerely,

Bret Banks
Deputy Director

BSB/bb

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Response to Comment Letter R1

Antelope Valley Air Quality Management District
Bret Banks, Deputy Director
March 31, 2015

R1-1 This comment concurs with the analysis of potential impacts in the Air Quality section of the Draft EIR. It should be noted that AVAQMD would be notified of future renewable energy projects requiring discretionary approval, as required under CEQA.

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Comment Letter R2

California Water Boards

Edmund G. Brown Jr. Governor

Matthew Rodriguez Secretary for Environmental Protection

Lahontan Regional Water Quality Control Board

April 3, 2015

File: Environmental Doc Review
Los Angeles County

Jay Lee
Los Angeles County Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Email: jalee@planning.lacounty.gov

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE LOS ANGELES COUNTY RENEWABLE ENERGY ORDINANCE, LOS ANGELES COUNTY, STATE CLEARINGHOUSE NO. 2014051016

The California Regional Water Quality Control Board, Lahontan Region (Water Board) staff received the Draft Environmental Impact Report (DEIR) for the above-referenced ordinance (Ordinance) on February 23, 2015. The DEIR was prepared by the Los Angeles County Department of Regional Planning (County) and submitted in compliance with provisions of the California Environmental Quality Act (CEQA). The Ordinance will establish regulations, including development standards, for the development of renewable energy projects in unincorporated areas where the County has land use jurisdiction. Water Board staff, acting as a responsible agency, is providing these comments to specify the scope and content of the environmental information germane to our statutory responsibilities pursuant to CEQA Guidelines, California Code of Regulations, title 14, section 15096. Water Board staff commented on the Notice of Preparation of the DEIR in a letter dated June 3, 2014. We appreciate that the DEIR addressed some of our concerns raised in our previous letter, but two issues in that letter were apparently not addressed: (1) promote and provide incentives for use of previously disturbed lands for ground-mounted renewable energy projects, and (2) incorporation of the State Water Resources Control Board policy on use of recycled water, for construction and maintenance of renewable energy projects. Our comments on the DEIR are outlined below.

R2-1

R2-2

AUTHORITY

All groundwater and surface waters are considered waters of the State. Surface waters include streams, lakes, ponds, and wetlands, and may be ephemeral, intermittent, or perennial. All waters of the State are protected under California law. State law assigns responsibility for protection of water quality in the Lahontan Region to the Lahontan Water Board. Some waters of the State are also waters of the U.S. The Federal Clean Water Act (CWA) provides additional protection for those waters of the State that are also waters of the U.S.

R2-3

The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) contains policies that the Water Board uses with other laws and regulations to protect the quality of waters of the State within the Lahontan Region. The Basin Plan sets forth water quality standards for surface water and groundwater of the Region, which include designated beneficial uses as well as narrative and numerical objectives which must be maintained or attained to protect those uses. The Basin Plan can be accessed via the Water Board's web site at http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml.

R2-3 Cont.

Los Angeles County is located within the jurisdiction of multiple Regional Water Boards. The Antelope Valley and the watersheds that drain towards the Antelope Valley are within the jurisdiction of the Lahontan Water Board. We request that the DEIR recognize that the Ordinance falls under the jurisdiction of multiple Water Boards and that a copy of the DEIR be made available to the appropriate Water Boards and the State Water Resources Control Board (State Water Board) for review and comment.

R2-4

RECOMMENDED ELEMENTS TO INCLUDE IN THE ORDINANCE

The goal of the Ordinance is to establish regulations and development standards for small-scale and utility-scale renewable energy projects in unincorporated areas of Los Angeles County. In the high desert, the quantity and quality of water are integral components driving development, especially in the Antelope Valley area. We are encouraged that the County incorporated into the DEIR elements that promote watershed management, support low-impact development (LID), and reduce the effects of hydromodification. We are encouraged that the DEIR discusses rooftop-mounted solar and wind projects, and how these systems would have minimal impact on stormwater run-off and natural drainages.

R2-5

However, the Ordinance does not address the importance of building ground-mounted solar and wind projects on previously disturbed lands, where feasible, to protect ephemeral watersheds, maintain biological soil crusts, and minimize erosion in desert regions. In addition, the environmental document does not discuss use of recycled water where feasible, for construction and maintenance of solar and wind projects, as encouraged by the State Water Board Recycled Water Policy (July 2009).

Focus Development on Previously Disturbed Lands

We recommend that the County promote and provide incentive for ground-mounted renewable energy development on previously disturbed lands as part of the renewable energy Ordinance, where feasible. Desert ecosystems are fragile. Biological soil crusts are common and provide a variety of functions including soil stabilization and nutrient cycling. When these ecosystems are disturbed, recovery is slow, on the order of decades. To minimize impacts to undisturbed desert lands, we encourage the County to support and promote development and reuse of previously disturbed lands, such as former agricultural lands. Such reuse can benefit environmental resources, including hydrology and water quality, by maintaining relatively undisturbed natural areas and avoiding direct impacts to established habitats and surface waters.

R2-6

Recycled Water Uses

The State Water Board adopted the Recycled Water Policy in February 2009 (effective May 14, 2009, and amended January 22, 2013). The purpose of the policy is to increase the use of recycled water from municipal wastewater sources, in a manner that implements state

R2-7

and federal water quality laws, as a means towards achieving sustainable local water supplies. The Recycled Water Policy establishes goals and mandates for recycled water use. The mandates are to increase the use of recycled water from the amount used in 2009 by 200,000 acre-feet per year by 2020 and by 500,000 acre-feet per year by 2030. Incentives for implementing recycled water projects include grant opportunities and priority funding.

In July 2009, the State Water Board adopted General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water (General Permit). Some of the allowable recycled water uses include: landscape irrigation of parks, greenbelts, playgrounds, school yards, athletic fields, golf courses, and cemeteries; dust control for construction activities and road maintenance; mixing concrete; and soil compaction.

The Water Board supports recycled water as a safe alternative to potable water for such approved uses including dust control, road maintenance, and construction. We encourage the County to consider recycled water use as a development standard in their Ordinance. The Los Angeles County Sanitation District treatment facilities in Lancaster and Palmdale both have the technologies to supply project developers with recycled water for both construction and operational needs.

R2-7 Cont.

PERMITTING REQUIREMENTS

A number of activities associated with renewable energy development have the potential to impact waters of the State and, therefore, may require permits issued by either the State Water Board or Lahontan Water Board. We note that the DEIR addresses the need to obtain a permit under the State Water Board General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, 20012-006-DWQ for renewable energy projects 1 acre in area and larger. Other required permits may include:

- Recycled water use for landscape irrigation and dust control may require Waste Discharge Requirements (WDRs), issued by the Lahontan Water Board; and
- Streambed alteration and/or discharge of fill material to a surface water, including water diversions, may require a CWA, section 401 water quality certification for impacts to federal waters (waters of the U.S.), or dredge and fill WDRs for impacts to non-federal waters, both issued by the Lahontan Water Board.

We request that the DEIR recognize the potential permits that may be required of project developers, as outlined above. Information regarding these permits, including application forms, can be downloaded from our web site at http://www.waterboards.ca.gov/lahontan/.

R2-8

Thank you for the opportunity to comment on the DEIR. We are encouraged that the County is taking the initiative to establish long-term planning strategies for renewable energy development. If you have any questions regarding this letter, please contact me at (760) 241-7391 (tbrowne@waterboards.ca.gov) or Patrice Copeland, Senior Engineering Geologist, at (760) 241-7404 (pcopeland@waterboards.ca.gov).

R2-9

Tom Browne, PhD, PE
Water Resource Control Engineer

cc: State Clearinghouse (SCH 2014051016) (state.clearinghouse@opr.ca.gov)
California Department of Fish and Wildlife, South Coast Region (AskR5@wildlife.ca.gov)

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Response to Comment Letter R2

Lahontan Regional Water Quality Control Board
Tom Browne, PhD, PE, Water Resource Control Engineer
April 6, 2015

R2-1 This comment consists of an introduction to the Lahontan Regional Water Quality Control Board and a summary of the proposed project; as such, no response pertaining to the proposed project or to the Draft EIR is required.

R2-2 The two issues that are outlined in this comment are further discussed in the responses below.

R2-3 This comment consists of a description of the jurisdiction of the Lahontan Regional Water Quality Control Board and of the *Water Quality Control Plan for the Lahontan Region* (Basin Plan); as such, no response pertaining to the proposed project or to the Draft EIR is required.

R2-4 Section 4.9 of the Draft EIR recognizes that the proposed project falls under the jurisdiction of the Los Angeles RWQCB and the Lahontan RWQCB, and that a small portion of the proposed project is within the jurisdiction of the Central Valley RWQCB. In the County's transmittal of the Draft EIR to the State Clearinghouse, staff recommended that the State Clearinghouse distribute the Draft EIR to the Los Angeles RWQCB, the Lahontan RWQCB, and the State Water Resources Control Board for review and comment. The Central Valley RWQCB has been added to the EIR mailing list and will receive all future EIR-related notifications.

R2-5 This comment concurs with aspects of the environmental analysis in the Draft EIR; as such, no response pertaining to the proposed project or to the Draft EIR is required.

R2-6 The concerns regarding recycled water are addressed in Response R2-7. See Response O1-2, O1-5, and O1-10 for a discussion of site selection for future wind energy projects and utility-scale ground-mounted projects.

The recommendations for the proposed Zoning Code amendments provided by the commenter will be included in the Final EIR for review and consideration by decision makers.

R2-7 The proposed Zoning Code amendments require the use of recycled water where feasible as a condition of approval for utility-scale ground-mounted renewable energy facilities (see Appendix A). These provisions provide baseline recycled water

requirements for these projects where none currently exist. Section 4.17.2 of the Draft EIR has been revised to include a description of the State Water Board Recycled Water Policy. The proposed Zoning Code amendments would be consistent with this policy, as new recycled water provisions would be applied to future utility-scale ground-mounted renewable energy facilities where no such provisions currently exist.

R2-8 Section 4.9.4 of the EIR has been revised to reflect the additional permitting requirements identified by the commenter that may be required for future projects developed pursuant to the proposed Zoning Code amendments. These changes are shown in this Final EIR. Because these additions provide new information that clarifies and expands upon information already found in the Draft EIR, these additions do not raise important new issues about significant effects requiring recirculation pursuant to Section 15088.5 of the CEQA Guidelines.

R2-9 This comment concludes the letter. As such, no response pertaining to the proposed project or to the Draft EIR is required.

Comment Letter C1

Mar.03.2015 05:59 PM Audio Visual Live Inc 6617280187

Attn: Jay Lee

Subject: Energy Ord. Response

From: Virginia Stout

Pages including cover: 4

Antelope Acres Town Council
P. O. Box 6708
Lancaster, California 93539

March 3, 2015

Los Angeles County Department of
Regional Planning
Attention: Jay Lee
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012

Comments for Renewable Energy Ordinance

The Antelope Acres Town Council has many concerns about the Draft Renewable Energy Ordinance providing baseline standards for solar and wind energy projects. C1-1

1. Glare: At certain times of the day, glare from utility solar is an unavoidable danger and an incredible distraction to drivers. A more accurate way to mitigate glare must be formulated. C1-2

2. The utility solar and wind projects are sold and resold so many times that it is conceivable that the end person can claim bankruptcy or dispute the original agreement or ordinance. How can the taxpayer be protected from a project's financial problems? C1-3

If the permittee can receives a six month extension, how many six month extension can a permittee apply for? What are the criteria to be used? C1-4

3. Since all project perimeter fencing is contiguous or nearly contiguous, how are the larger desert dwellers, such as coyotes, kit foxes, and badgers going to access a more extended foraging area? C1-5

Although mitigation land is required, why are there no wildlife corridors incorporated into the design of the renewable energy projects? Foraging habitat is immediately removed for animals to get to and from their traditional hunting grounds. C1-6

4. The cumulative effect of utility scale industrial facilities has not been adequately addressed by the Renewable Energy Ordinance. Why has this been disregarded? We ask that this be included in the report. C1-7

1

.5. Why differentiate the coastal zone with the desert zone? Why do these zones have different standards for preservation of scenic views? Why is scenic defined differently in a coastal zone than the desert? C1-8

6. Why was renewable energy excluded from Economic Opportunity Areas? C1-9

7. Landscape area: A landscape contractor, registered with the County and posted as the responsible entity, shall maintain, in perpetuity, all project perimeter fencing landscaping. Proof of this service shall be posted at the facility and a check list shall be kept for immediate reference. C1-10

Why have temporary irrigation installed when it may take up to ten years for some roots to establish themselves and the plants to grow large enough to survive? If there is extreme heat or drought, which is predicted, the plants will need supplemental water, not just intermittent water truck dousing. C1-11

An permanent irrigation system shall be installed and functioning at the establishment of site approval and throughout the duration of the project.

8. Setbacks: The setbacks for bats and eagles need to be extended. Why is a golden eagle nest site stipulated in the ordinance and not eagles in general or eagles sitings by residents, as that could mean they are searching for nesting and foraging sites as populations spread? C1-12

Why, for renewable wind energy facilities, is there not a County appointed biologist available for counting bird kill, instead of a project self-monitoring itself? It is well known that you cannot completely mitigate bird kill. C1-13

9. Noise: A single event noise level of 60 dBA SEL is more audible in a very quiet rural environment. A consistent, unlimited sound and vibration travels further distances in unpopulated areas than in built up residential areas. Why, since the ordinance affects a sizeable rural area with many inhabitants, is the ability of sound to travel not addressed in the Renewable Energy Ordinance? C1-14

10. If sensitive receptors within a 5-mile radius will be affected by utility scale renewable energy facilities, permits should not be granted without an agreement with those receptors. C1-15

11. Modifications: All applicants shall follow the same rules. No exceptions shall be given for topographic or physical features. Please remove the exceptions provided for Section 22.52.1640. Wind towers higher than 500 feet should not be allowed and should never be granted a variance. (Chapter22.56). C1-16

Is there a height limit which would require the County to deny?

12. Uses Subject to Permits - Findings: The Hearing Officer should be able to deny a CUP for the problems mentioned in Chapter 22.52.1650, A through C. C1-17

13. Water Use: The project shall use piped recycled water or trucked recycled water. The use of potable water from the public right-of-way or on-site groundwater shall not be used under any condition. C1-18

14. Uses Subject to Permits. All Conditional Use Permits and Minor Use Permits shall require a public hearing. All language that says a Hearing Officer shall approve CUPs if he or she agrees with the changes proposed should be changed from shall to "may". The government needs to be more transparent. C1-19

Thank you for taking public comments seriously. We look forward to your responses to our concerns. C1-20

Sincerely,

Virginia Stout

Antelope Acres Town Council

Response to Comment Letter C1

Antelope Acres Town Council
Virginia Stout
March 3, 2015

C1-1 This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

C1-2 This comment states that a more accurate way to mitigate glare from utility-scale solar energy projects must be identified. The County will include the commenter's request for additional measures pertaining to glare in the Final EIR, for consideration by decision makers.

The proposed Zoning Code amendments require that all utility-scale solar energy facilities be designed and located in such a way to minimize reflective glare toward any inhabited structure on adjacent properties as well as adjacent street rights-of-way. This is a condition of approval for all utility-scale ground-mounted solar energy facilities and for utility-scale structure-mounted solar energy facilities that require a Minor CUP. Additionally, utility-scale ground-mounted solar energy facilities would be required to include a glare study in the application materials for the CUP or Minor CUP. The information in the glare study would be considered as part of the CEQA analysis for the project. Glare studies are typically conducted by lighting engineers in accordance with the methods and thresholds outlined in the Illuminating Engineering Society of North America (IENSA) Lighting Handbook (IESNA 2011). Glare is defined as visual discomfort resulting from high contrast in brightness levels. As part of a glare study, a lighting engineer would either quantify or qualitatively characterize the amount of glare produced by a solar energy facility and would recommend measures to reduce the glare. Glare may be minimized through screening, siting, and maximum allowable reflectance.

Currently, there are no development standards that are specific to renewable energy facilities in the Zoning Code. As such, requiring glare minimization and avoidance measures as a condition of approval and requiring a glare study to be part of the application package sets forth more stringent development standards than those that are currently in place. Section 10.1 contains a description of the distinction between the proposed Zoning Code amendments and existing regulations in place for renewable energy projects.

The analysis in the Draft EIR determined that utility-scale structure-mounted solar energy facilities would have a potentially significant impact relative to light and glare. Because these projects could be constructed without further CEQA review and without discretionary approval in most zones, there is the potential that they could generate glare that is considered significant under CEQA. For utility-scale ground-mounted solar facilities, which require discretionary approval, the County typically requires that the following mitigation measure be applied: "glass used to cover the flat-plate PV panels shall be high-transmission, low-iron tempered glass and have a reflectance value of 8% or less." Compliance with the County's measure for PV panels with low reflectively would be expected to reduce potential glare effects of utility-scale ground-mounted solar energy projects to less than significant. However, because these projects would be subject to further CEQA review as part of the discretionary review process, they could potentially be subject to additional mitigation measures if significant impacts are identified during the project-specific CEQA review. Glare may be further minimized through screening, siting, and maximum allowable reflectance. The County would be able to impose such conditions on a case-by-case basis for utility-scale ground-mounted solar energy facilities.

C1-3 This comment pertains to bankruptcy of utility-scale renewable energy project applicants. Economic effects need not be considered in an EIR (see CEQA Guidelines section 15064(e)). The question that is raised in this comment will be included in the Final EIR for review and consideration by the decision makers.

The ordinance establishes as a standard condition of approval, a requirement that all utility-scale solar and wind energy facilities prepare a decommissioning plan to the satisfaction of the Director of Public Works. The decommissioning plan is required to analyze the performance and financial guarantees sufficient for the decommissioning plan, and, should the facility become nonoperational, the County may initiate decommissioning work. For any alleged zoning violations found on a subject property, including failure to comply with the conditions of an approved Conditional Use Permit for a utility-scale facility, the applicant and/or the property owner will be responsible for abating the violations.

C1-4 This comment pertains to permit extensions allowed under the proposed Zoning Code amendments after a system or facility has stopped operating. This comment does not pertain to the adequacy of the environmental analysis in the Draft EIR.

The process for determining the appropriate number of extensions granted is on a case by case basis and based on a number of factors, including responsiveness, health

(e.g., illness), and financial constraints of the applicant, and other factors that affect the commencement of decommissioning.

C1-5 This comment presents a question regarding foraging areas for animals such as coyotes, foxes, and badgers and potential impacts of perimeter fencing.

For utility-scale ground-mounted projects, the proposed Zoning Code amendments require that perimeter fencing incorporate small animals–permeable design. For a discussion of the impacts of the proposed project on wildlife movement, see Section 4.4 of the Draft EIR. While the impacts of fences are not specifically discussed, a significant and unavoidable impact to wildlife movement was identified for projects that may typically include perimeter fencing, such as utility-scale ground-mounted facilities. This significance determination was identified because such projects typically require large areas of land in areas where wildlife is present and may therefore impact existing wildlife corridors. Indirect effects from increased noise levels or nighttime lighting, which would potentially discourage movement within corridors and linkages, were also identified in Section 4.4 of the Draft EIR.

As described in Section 10.1 of this document, future utility-scale ground-mounted renewable energy projects would be required to undergo project-level CEQA review and discretionary approval prior to implementation. As such, project-specific mitigation measures may be required to address site-specific impacts to biological resources.

C1-6 This comment pertains to wildlife corridors being incorporated into the design of renewable energy projects.

For utility-scale ground-mounted projects, the proposed Zoning Code amendments require that perimeter fencing incorporate small animal–permeable design. For a discussion of the impacts of the proposed project on wildlife corridors and habitat, see Section 4.4 of the Draft EIR. A significant and unavoidable impact to wildlife movement has been identified in this EIR.

As described in Section 10.1, future utility-scale ground-mounted renewable energy projects would be required to undergo project-level CEQA review and discretionary approval prior to implementation. As such, project-specific mitigation measures may be required to address site-specific impacts to biological resources, such as effects to wildlife corridors.

C1-7 This comment addresses cumulative effects of utility-scale projects. The cumulative environmental effects of the proposed project are considered and addressed in

Chapter 5 of the Draft EIR. Additionally, future utility-scale ground-mounted projects (solar and wind) and future utility-scale structure-mounted wind energy projects would be required to undergo project-specific CEQA review and discretionary approval prior to implementation. CEQA requires the analysis of cumulative impacts. As such, at the time of environmental review, utility-scale ground-mounted projects and utility-scale structure-mounted wind energy projects would be evaluated for their cumulative effects on the environment.

Additionally, the state is currently undergoing a process of studying the effects of renewable energy projects across the Mojave Desert as part of the Desert Renewable Energy Conservation Plan (DRECP). The DRECP considers renewable energy development in the Mojave Desert over the next 25 years. It provides an ecosystem approach to impact mitigation and landscape-level natural resources conservation through strategic habitat conservation. Baseline biological information from a variety of sources was collected and considered in developing the DRECP's goals and objectives. The Antelope Valley area of Los Angeles County, which is part of the Mojave Desert, is included in the boundaries of the DRECP.

In summary, the cumulative effects of utility-scale projects would be examined in the CEQA documents that would be prepared for individual projects, and potential effects are also being studied and addressed at a desert-wide scale.

C1-8 This comment raises questions about the differences between the Coastal Zone and desert areas and why scenic views are defined and protected differently in these locations. Environmental impacts on scenic vistas within both the Coastal Zone and in the desert are considered and addressed in Section 4.1 of the Draft EIR. The Coastal Zone is an area specifically mapped by the State Legislature. On land, the Coastal Zone varies in width from several hundred feet in highly urbanized areas up to five miles in certain rural areas. Offshore, the Coastal Zone includes a three-mile-wide band of ocean. Development in the Coastal Zone is subject to the California Coastal Act of 1976 (refer to Division 20 of the Public Resources Code), which contains specific provisions to preserve coastal views. Development within the Coastal Zone is subject to coastal development permits, which are issued by either the California Coastal Commission or a local government that has adopted a Local Coastal Plan that has been certified by the California Coastal Commission. The area of the County that is within the Coastal Zone is governed by Local Coastal Plans that have been certified by the California Coastal Commission. Because compliance with applicable Local Coastal Plans and the California Coastal Act is already mandated by state law, the language describing these regulations has been stricken from the final version of the proposed Zoning Code amendments (see Appendix A). While the

County has instated protections on scenic views within the desert as part of its land use plans, coastal views are specifically regulated under the California Coastal Act.

C1-9 This comment consists of a question about why renewable energy was excluded from Economic Opportunity Areas. Utility-scale ground-mounted solar and wind energy facilities are prohibited from Economic Opportunity Areas based on specific direction from the Los Angeles County Board of Supervisors as part of the Antelope Valley Area Plan Update.

C1-10 This comment consists of a suggested Zoning Code provision and does not pertain to the adequacy of the environmental analysis in the Draft EIR. This suggestion will be included in the Final EIR for review and consideration by the decision makers. The County currently does not maintain a registered list of contractors. Landscaping contractor's licenses are issued through the California Contractors State License Board. The conditions of approval for utility-scale ground-mounted projects would require that the landscaped area along perimeter fencing be maintained. Additionally, establishment of the plantings would be required to be verified at the time of regular inspections, according to inspection time frames in the permit conditions. The applicant, and ultimately the property owner, is responsible for maintaining any required project perimeter fencing landscaping. Furthermore, a detailed landscaping plan would be required as part of the application materials for utility-scale ground-mounted projects. A landscape architect or landscaping professional would likely be used by future project applicants to develop this plan.

C1-11 This comment consists of a suggested Zoning Code provision and does not pertain to the adequacy of the environmental analysis in the Draft EIR. The provision that this commenter suggests will be included in the Final EIR for review and consideration by the decision makers. As a condition of approval for utility-scale ground-mounted renewable energy projects, the proposed Zoning Code amendments require that the landscaped area be maintained throughout the life of the project. The proposed Zoning Code amendments would also require submittal of a landscaping plan, which includes a description of the necessary water associated with planting and maintaining proposed landscaping, as part of the application materials for a proposed utility-scale solar energy facility. This information would be reviewed as part of the project materials, and the information would be made available as part of staff materials for the project. These provisions would ensure maintenance of landscaped areas.

C1-12 This comment consists of a suggested Zoning Code provision and does not pertain to the adequacy of the environmental analysis in the Draft EIR. Impacts on avian and

bat species are addressed in Section 4.4 of the Draft EIR. See Response I10-3 for more details on golden eagle nest sites.

The setbacks for ground-mounted small-scale wind energy systems and utility-scale wind energy facilities have been developed through consultation with biological experts. The setbacks specified in the proposed Zoning Code amendments are the minimum setbacks. Additional setbacks may be imposed for future projects. All wind energy projects would be subject to further CEQA review as part of the discretionary review process, at which time additional setbacks could be required if significant impacts are identified.

C1-13 This comment consists of a suggested provision for monitoring bird kill and does not pertain to the adequacy of the environmental analysis in the Draft EIR. Impacts on avian and bat species are addressed in Section 4.4 of the Draft EIR. For utility-scale wind energy facilities, which would require project-specific discretionary approval and CEQA review, site-specific requirements for monitoring may be instituted as mitigation or as a feature of the project as necessary. Additionally, such projects would involve coordination with CDFW if natural resources within its jurisdiction would be affected.

C1-14 Impacts related to noise are addressed in Section 4.12 of the Draft EIR. This section describes the characteristics of noise, including audible frequencies, noise attenuation over distance, the tolerability of different types of noise, perceptible changes in noise, and noise-sensitive land uses. In accordance with the County's CEQA thresholds, the proposed project was analyzed with respect to the following criteria: Would the project result in exposure of persons to, or generation of, noise levels in excess of standards established in the County General Plan or Noise Control Ordinance; Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from parking areas; Would the project result in 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; 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; and, 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. The operational noise impacts of wind energy projects would be potentially significant and unavoidable, as the operation of wind turbines would have the

potential to result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

As described in Section 10.1 of this document, future wind energy projects would be required to undergo project-level CEQA review and discretionary approval prior to implementation. The County CEQA thresholds include a criterion addressing noise in the project vicinity and one that addresses whether or not the project would result in exceedance of established noise standards. Both of these thresholds would encompass potential impacts occurring non-adjacent to the project site. Project-specific mitigation measures may be required for future wind energy projects to address site-specific noise impacts. Furthermore, as described in Section 10.1, the proposed project would not trigger any changes in whether or not wind energy projects are allowed in the County. Wind energy is allowed under the current Zoning Code provisions and wind energy would continue to be allowed under the proposed Zoning Code amendments, with the added caveat that projects would have to comply with the baseline guidelines established by the proposed project.

The existing noise requirement for small-scale wind energy systems would not change upon adoption of the proposed project. The noise requirement that was proposed in the version of the Zoning Code amendments released with the Draft EIR has been revised for utility-scale ground-mounted wind energy facilities to state the following: "Noise from a utility-scale wind energy system shall not exceed 60 dBA Leq (equivalent sound level), as measured at the closest existing neighboring inhabited dwelling at the time of approval, or closest property line, whichever is closer." Per CEQA Guidelines Section 15088.5, this revision does not constitute a significant new change resulting in a need to recirculate the EIR.

It is noted that Part 15 of the Zoning Code works in conjunction with the County's Noise Control Ordinance (see Chapter 12.08 of the County Code). Section 4.12 of the EIR has been revised to clarify that projects must comply with the thresholds established in the Noise Control Ordinance. For example, for wind energy projects located on a residential property, noise would be limited to 45 dBA during the night, due to required compliance with the Noise Control Ordinance. Conversely, where the noise threshold established in the Noise Control Ordinance is less stringent than that established in Part 15 of the Zoning Code, the noise threshold established in Part 15 would apply. The revisions that were made to the EIR to clarify this nuance do not constitute a significant new change resulting in a need to recirculate the EIR, per CEQA Guidelines Section 15088.5.

C1-15 This comment consists of a suggested Zoning Code provision and does not pertain to the adequacy of the environmental analysis in the Draft EIR. The suggestion will be included in the Final EIR for review and consideration by the decision makers.

Potential impacts of future utility-scale renewable energy projects to sensitive receptors are addressed in the Draft EIR. Section 4.1 addresses potential effects to viewsheds, Section 4.3 addresses potential effect on air quality, Section 4.8 addresses potential effects regarding hazards and hazardous materials, and Section 4.12 addresses potential effects related to noise. Utility-scale ground-mounted projects would be subject to further discretionary approval and project-specific CEQA review. As part of the CEQA process, community members would be notified in accordance with CEQA Guidelines Section 15087 and a review period would be provided in accordance with CEQA Guidelines Section 15105. Additionally, as part of the CUP process, a public hearing would be held, during which community members would be able to comment on the project.

C1-16 This comment consists of a request to eliminate the "Modifications" section in the proposed Zoning Code amendments. This comment does not pertain to the environmental analysis in the Draft EIR but will be included in the Final EIR for review and consideration by decision makers.

The potential impacts of renewable energy projects developed pursuant to the proposed Zoning Code amendments have been addressed in the Draft EIR. Projects involving a modification in the standards of the proposed Zoning Code amendments would need to undergo further project-level CEQA review and would require discretionary approval. During the project-level CEQA review, the impacts of the proposed project, including the aspect of the project design that is not in conformance with the proposed Zoning Code amendments, would be evaluated for its effects to the environment pursuant to CEQA. Project-specific mitigation measures would be identified if needed, and decision makers would be able to decide whether or not to approve the modification during the discretionary approval process.

The Variance permitting process has been established to allow for the modification of development standards in the unlikely event that would be necessary.

C1-17 This comment consists of a suggested revision to the proposed Zoning Code amendments and does not pertain to the adequacy of the environmental analysis in the Draft EIR. The suggested revision will be included in the Final EIR for review and consideration by the decision makers. The Hearing Officer would be required to make

the findings set forth in Part 15 prior to approving a CUP or a Minor CUP for a proposed wind energy or solar energy project. The Hearing Officer cannot approve a Minor CUP or CUP if he or she cannot make the required findings.

C1-18 This comment consists of a suggested Zoning Code provision and does not pertain to the adequacy of the environmental analysis in the Draft EIR. The suggestion will be included in the Final EIR for review and consideration by the decision makers. The impacts of the proposed project related to water supply and groundwater supply are considered and addressed in Section 4.9 and Section 4.17 of the Draft EIR. Impacts of renewable energy projects to both water supply and groundwater resources were determined to be potentially significant and unavoidable. See Response C2-45 for a description of other measures that would be part of the proposed project that would serve to monitor and regulate water use of future utility-scale ground-mounted projects.

As described in Section 10.1, future utility-scale ground-mounted solar energy projects and all wind energy projects would be required to undergo project-level CEQA review and discretionary approval prior to implementation. As such, project-specific mitigation measures may be required to address site-specific water supply impacts.

C1-19 This comment consists of a suggested revision to the proposed Zoning Code amendments and does not pertain to the adequacy of the environmental analysis in the Draft EIR. The suggested revision will be included in the Final EIR for review and consideration by the decision makers. The consideration to approve both a CUP or a Minor CUP would involve a public hearing. A Hearing Officer must approve a CUP or Minor CUP if he or she makes the required findings.

C1-20 This comment concludes the letter and does not raise a significant environmental issue for which a response is required.

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Comment Letter C2

Three Points-Liebre Mountain Town Council
P. O. Box 76
Lake Hughes, CA 93532

14 March 2015

SENT VIA EMAIL

Ms. Susan Tae, Supervising Regional Planner, Section Head
Community Studies North Area
Department of Regional Planning
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Mr. Jay Lee, Planner
Renewable Energy Ordinance
Department of Regional Planning
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Dear Ms. Tae and Mr. Lee,

Subject: Renewable Energy Ordinance, Draft 3

Our town council appreciates the opportunity to comment on the Renewable Energy Ordinance, Draft 3 (REO3). This ordinance will have far-reaching effects on rural communities across the county; many of them have already experienced ill-effects of utility-scale renewable energy development covering thousands of acres in the Antelope Valley. Several aspects of the ordinance including, but not limited to, the time-frame to comment, water issues, noise, dust and Valley Fever concerns, nighttime lighting, Minor Conditional Use Permits (MCUP), Conditional Use Permits (CUP), small-scale and utility-scale renewable energy uses, protection of ridgelines, and biological considerations of development necessitate response, and the councils represented here request changes to the REO3 that would not only clarify existing language, but offer protections to not only town council areas, but the county at large. C2-1

While the Renewable Energy Ordinance Team visited our town council during January of 2015, only a working draft document was available. The REO3 was not available for viewing until February 20th, and the comment period is actually cut short by "ideally" sending comments prior to the submission of the planning package that goes to planning commissioners. For some councils, approval of comments or letters is not possible because of how meeting dates fall in relation to the comment deadline, which is not listed on the released draft REO3. Two or three weeks is not enough time to thoroughly review this document, and its importance to rural communities is without question. We find it reasonable to request additional time for our concerns to be heard, and our suggestions implemented. C2-2

DEFINITIONS

Section 5, 22.08.210, U, page 4/79. Utility-Scale Solar Renewable Energy facility, ground-mounted. "Ground-mounted utility-scale solar renewable energy facility" means a facility affixed to the ground where renewable solar energy resources are used to generate direct electrical or thermal energy primarily for off-site use. This definition includes all on-site and off-site equipment and accessory structures related to the facility, including but not limited to solar collector arrays, wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures." *The definition, here, does not adequately address the exclusion of parabolic "boiler" type solar arrays or power "concentrating" towers, although the previous definition of "Solar Arrays" (Section 4, 22.08.190, S) "do not include concentrated solar thermal devices, which use lenses or mirrors to focus or reflect a large area of sunlight onto a small area." Part U's "including, but not limited to solar arrays" does not go on to define what other types of solar equipment are allowed. This opens the statement to include, essentially, everything. Please provide more specific language that excludes parabolic trough boiler and power tower type renewable energy systems from the ordinance. They also use tremendous amounts of water—precious in our high desert areas. Not only that, but well documented massive killing of birds at the Ivanpah plants at Primm, Nevada, and unprecedented glare beyond that of panels and FAA lighting on wind towers would render visual distraction to scenic areas and render useless the Rural Outdoor Lighting Ordinance, further imposing destruction of dark night sky views, and daytime views, too. Moreover, Part U also states structure mounted utility-scale solar energy facility that is "used to generate direct electrical or thermal energy primarily for off-site use, also contains more "including, but not limited to" language. There is no definition of thermal energy for off-site use. This should be more specifically described to assure solar concentrating "thermal" energy is not allowed.* C2-3

Section 6, 22.08.230, W, page 6/79. "Wind tower" means the vertical component, including blades if any, of a small-scale wind energy system, a utility-scale energy facility using wind resources, or a temporary meteorological tower that elevates the wind turbine generator and attached blades above the ground." *This statement is confusing. Why not describe a meteorological tower as a "met tower" and a wind turbine with blades, meant to generate electricity, as a wind tower?* C2-4

LAND USE ZONES

As the document lists "Permitted Uses," "Accessory Uses," and "Uses Subject to Permits," through particular land use zones, for each zone, all utility-scale solar and wind energy facilities, structure mounted, are a permitted use (Sections 7-48, 22.20.080 through 22.25.320, pages 6-31). *When we reach Zone C-R, Commercial Recreation, the ordinance allows ground mounted utility-scale solar and wind energy that is incompatible with recreational areas and should not be permitted (page 29/79).* C2-5

In Zone M-4, Section 48, 22.32.190, a CUP is needed for "use listed is located within 300 feet of a public school, public park, or a residential or A-1 Zone." The three hundred foot distance should be extended to two miles, since children, especially, are sensitive receptors, and according to Arline Bronzaft, B.A., M.A., Ph.D., who spoke at the Oct. 30 [2010] International Symposium on Adverse Health Effects from Wind Turbines, many other studies have demonstrated that intrusive noises, such as passing traffic or overhead aircraft, adversely affect children's cardiovascular systems, memory, C2-6

language development and ability to learn. The abstract of her article in Bulletin of Science Technology Society August 2011 vol. 31 no. 4 291-295 states, "Furthermore, based on our knowledge of the harmful effects of noise on children's health and the growing body of evidence to suggest the potential harmful effects of industrial wind turbine noise, it is strongly urged that further studies be conducted on the impacts of industrial wind turbines on their health, as well as the health of their parents, before forging ahead in siting industrial wind turbines."

C2-6 Cont.

Section 56, 22.40.430, page 35/79, A, Uses Subject to Permits, in O-S Zone, "Energy generating or storage devices, including but not limited to geothermal devices" are allowed with a CUP. *Energy generating or storage devices are not appropriate use in open space lands that Regional Planning deems appropriate for "campgrounds, crops, grazing of animals, [and] resource management (22.40.410). The term "energy generation devices" is unclear, and if open space lands are appropriate places for them, they need to be described in detail and their purpose stated, justifying their placement.*

C2-7

COMMUNITY STANDARDS DISTRICTS

Section 57, 22.44.113, Sec. 58, 22.44.113, Sec. 59, 22.44.133 page 35/79. *According to* Section 22.52.1605 *of the REO3, supplemental district regulations (such as Community Standards District provisions) apply to all renewable energy projects. However, in instances where the REO3 regulates matters that are also addressed by CSD provisions, the REO3 prevails, and CSD provisions are subordinated. This untenable arrangement has never been explained, and Planning Staff have never provided any reasons for including such provisions. This portion of the REO3 must be revised to ensure that CSD provisions prevail, particularly in regard to utility scale wind and solar generation projects, unless the ordinance stipulates a more stringent or protective requirement, with regard to renewable energy. The reasons are obvious. CSDs are established for, constrained to, and address, developed residential uses, and they include provisions that are intended to protect these residential uses from incompatible industrial development such as that associated with utility-scale RE generation projects. Granting industrial uses the ability to sidestep community protection provisions of any CSD "by right" and without reason or justification undermines the entire CSD structure. If a renewable energy proponent wishes to develop a project that violates a CSD provision, then they should be required to go through the variance process just like any other project proponent that wishes to avoid CSD requirements. Above all, RE developers should not be granted a perfunctory "pass" that allows them to completely ignore the very development standards that communities have fought hard for and which protects residents from incompatible development.*

C2-8

PART 15

Section 22.52.1600, Purpose, page 40/79. "This Part 15 establishes regulations and permit requirements that support and facilitate the development of small-scale solar energy systems, small scale wind energy systems, [Add: *Industrial*] utility-scale solar renewable energy facilities, [*Industrial*] utility-scale wind energy facilities, and temporary meteorological towers in a manner that protects public health, safety, and welfare, and minimizes significant safety hazards and impacts to the environment." *The ordinance, as written, does not apply sufficient regulations that would protect rural residents against visual impacts—many of the roads in rural areas access considerable viewshed, with ridgelines not protected by CSDs, which are, then, not protected by this ordinance; air quality and threat of Valley Fever are not well addressed; safety is a concern of rural residents, who, during times*

C2-9

of wildfire, rely heavily on aircraft water and retardant drops, which are impeded by 5oo foot tall wind turbines; there are environmental considerations pertaining to wildlife, conservation areas, and public trust lands.

C2-9 Cont.

Section 22.52.1605, B, page 41/79. "Applicability of zone and supplemental district regulations. All provisions of the zone and any supplemental district in which a small-scale solar renewable energy system, small-scale wind energy system, utility-scale solar renewable energy facility, utility-scale wind energy facility, or temporary meteorological tower is located shall also apply. Where a provision of the zone or supplemental district regulates the same matter as this Part 15, whichever provision of this Part 15 is more restrictive shall apply." *Please see above for reference to Community Standards Districts.*

C2-10

Part E. 1., 2., Subsequent Application, page 42/79. "1. Any subsequent application modification(s) that would increase the physical size, height, or footprint of a previously approved small-scale solar renewable energy system, small-scale wind energy system, utility-scale solar renewable energy facility, utility-scale wind energy facility, or temporary meteorological tower; and 2. Any subsequent application modification(s) that would change the type of equipment used by the previously approved small-scale solar renewable energy system, small-scale wind energy system, utility-scale solar renewable energy facility, utility-scale wind energy facility, or temporary meteorological tower, except for replacement of equipment for maintenance purposes." *Please assure us that any modifications that change a previously approved small-scale, or utility-scale renewable energy system would be required to submit a CUP or a Minor CUP, and both permitting processes fulfill a public notice process.*

C2-11

22.52.1610, Application Materials, B, 4. a., v., page 43/79. "Watercourses." "The Project Area," [unincorporated Los Angeles County] a*ccording to California Department of Fish and Wildlife (CDFW), "supports aquatic, riparian, ephemeral and wetland habitats; therefore, a jusidictional delineation of the creeks and their associated habitats should be a requirement of the Renewable Energy Ordinance for future projects"(June 2, 2014 REO2 Letter). The application materials should include those specific types of water related areas listed above.*

C2-12

22.52.1610, B., 4. ix, page 43/79 "Transmission Lines." *Please add Generation Tie lines. This is important for visual impacts evaluation.*

C2-13

22.52.1610, B, 4. e, page 44/79. "Conceptual dust control plan." Conceptual means "not concrete." *The REO3 needs to hold projects to a solid, not theoretical dust plan that will actually mitigate dust. So far, Best Management Practices, and Rule 403 of the Antelope Valley Air Quality Management District, which include soil stabilizers, have proven unsuccessful in stopping wind driven dust events. Provide amendments that actually require more stringent control without polluting or damaging the environment.*

C2-14

22.52.1610, B., 5., a., iii., page 45/79. Discussion of guy wires. *The CDFW, in their response letter June 2, 2014 to REO2, request that no guy wires or non-strobe lighting be allowed on RE met towers and other structures, due to the fact that the wires pose a significant threat of mortality to avian wild life. "Guy wires supporting communications and meteorological towers can kill birds at high rates, including birds protected by Fish and Game Code (Kerlinger et al. 2008, Longcore et al. 2008). Both the CEC [California Energy Commission]-CDFG Guidelines (2007) and the U.S. Fish and Wildlife Service (2000) recommend using freestanding tower designs due to avian mortality impacts from*

C2-15

guywires. The Department recommends the Lead Agency require the use of mono-pole structures (when feasible), or otherwise utilize other technologies that do not use guy wires." Eliminate the use of guywires in REO3. It is possible to set met towers without guywires.

C2-15 Cont.

22.52.1615, C. 1.d., page 48/79. "Project perimeter fencing shall incorporate small animal permeable design, unless otherwise modified by the Hearing Officer." *Please define criteria by which modification of small animal permeable fencing be changed. Require assessment by CDFW and/or USFWS, in documented consultation with the Hearing Officer.*

C2-16

22.52.1615, C. 2., page 48/79. Standards for Utility-scale Solar Energy Facilities. "Height of the solar array shall not exceed 25 feet." *Solar arrays that reach up to 25 feet in height would be intrusive visually to flat or hilly landscapes and rural residential areas. Restrict height to 12 feet maximum.*

C2-17

22.52.1615, C. 3.a., b., page 48/79. Lighting. "a. Motion sensors for entry-lighting to the on-site equipment structures and buildings; and b. Light-sensor or motion-sensor lighting for the main facility access gate, operations and maintenance building doorways, and any parking areas of facilities with operation and maintenance buildings." *Motion-sensor lighting is obtrusive in dark areas, since it is constantly tripped by insects, animals, bats, birds, and blowing trash, so lights go off and on all night. This is not an appropriate requirement for all areas, nor does it comport with dark skies preservation. Lighting should remain off unless emergency maintenance is required, and only for the duration of the emergency activity.*

C2-18

22.52.1615, C. 6., Significant Ridgelines, Page 49/79. "The highest point of a utility scale solar renewable energy facility shall 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." *In order to address visual impacts to ALL ridgelines, impose the setback requirement recommended by CDFW, again, in their June 2, 2014 REO2 letter: "The Department [CDFW] recommends the Lead Agency [Regional Planning] consider a requirement for setbacks for all wind energy facilities and meteorological towers from significant ridgelines and Significant Environmental Areas at a minimum of twice the height of the proposed facility to reduce the potential impacts to migratory birds and other avifauna." This would ensure compliance with all CSDs, ensure less visual impact and allow adequate clearance to reduce potential impacts to birds and avifauna. Please amend to "The highest point of a utility-scale wind energy facility shall be located a minimum of twice the height of the proposed facility."*

C2-19

22.52.1625., A. 1., Standards for Temporary Meteorological Towers. Aviation Safety. All safety lights required by the Federal Aviation Administration that meets FAA standards shall be required for any wind tower, shall comply with applicable Federal Aviation Administration (FAA) standards. Any aviation-related agency or the Department may impose additional requirements as deemed necessary." *Sections of the REO3 requires the addition of "FAA-required safety lights" on all utility scale wind energy facilities. This poses a problem in that utility companies frequently state that FAA lights are required when in fact they are not. Take for example the transmission lines recently constructed through Acton and the Angeles National Forest. SCE informed the California Public Utilities Commission (CPUC) that FAA required lights on the new towers, so the CPUC authorized them. However, the US Forest Service clarified that FAA lights were not actually required on such transmission tower structures, so SCE did not install lights on any of the 60+ miles of towers located in several utility corridors along ridgelines and hilltops throughout the Angeles National Forest. In fact,*

C2-20

these "FAA-required" lights were only installed in residential areas located in valleys (specifically where aircraft do not fly). The point is, the County must take every possible action to avoid the installation of FAA lights and diligently confirm any applicant claim that "FAA-required" lights are indeed required. The County must also seek alternatives to such lights, and ensure that any lights which are installed shine light only in an upward direction and are not visible from any area that is at or below the elevation of the lights. Otherwise, the entire point of the County's recently adopted Rural Outdoor Lighting Ordinance is completely lost.

C2-20 Cont.

22.52.1625, C. 1., page 50/79. Standards for Temporary Meteorological Towers. Aviation Safety. "Wind towers" usage here is confusing when the title of the section refers to Temporary Met Towers. The language is used interchangeably and misleads the reader. There should be a separate section for Met Towers and one for Wind Towers. *Table 22.52.1625 A--Again, no guy wires, please. Make all met towers free standing, according to recommendation by the CDFW, due to high avian mortality rates at guywired towers. Also, alternating bands of aviation orange and white paint, with visibility marker spheres may be necessary for aviation safety, but a time period for their permitted operation should be instituted, of not more than two years, otherwise the removal of the "temporary" met towers could take years, or never happen at all. The orange and white painted towers are obtrusive to scenic areas and rural communities, and this obtrusion should be limited with a proscribed time limit for their operation, and should follow decommissioning requirements that include complete removal of foundation and tower apparatus, and restoration of the site.*

C2-21

C2-22

C2-23

Table 22.52.1625, page 51/79. Setback Requirements for Temporary Meteorological Towers. *The table seems to mix wind tower setbacks and met tower setbacks, even though, as previously mentioned, the section applies to "Temporary Meteorological Towers."*

C2-24

22.52.1630, A., 2., page 52/79. Standards for Small-scale Wind Energy Systems. Significant Ridgelines. See above comment at 22.52.1615, C. 6., which requests twice the height of the wind tower below the ridgeline.

C2-25

22.52.1630, C.2.a., page 53/79. Small-scale Wind Energy Systems. Impacts to birds and bats. Design. "Use of trellis towers prohibited." *Trellis towers are not the only threat to birds and bats. This would prevent perching and nest building dangerously near spinning blades, but blades do their own damage atop monopoles. Barotrauma (injury by rapid air pressure reduction) is the cause of death in a high proportion of bats found at wind energy facilities; 90% of bat fatalities involved internal hemorrhaging consistent with barotrauma. Institute a data base that identifies locations of small-scale wind energy systems, that includes review by independent biologists of the effects of numbers of small-scale turbines. Cumulatively, several in one area could lead to adverse effects on birds, bats, avifauna, and sensitive habitats in Significant Ecological Areas, near parks, public and private conservation lands, open-space areas, and rural communities. There needs to be criteria for limiting small-scale wind energy systems when their cumulative effects exert measurable harm to wildlife, cause noise-related effects, shadow flicker, and impinge on viewshed. How would CEQA be applied to cumulative impacts of numbers of individually placed small-scale wind energy systems?*

C2-26

C2-27

22.52.1630, C, 2, c., ii., page 54/79. "No part of the small-scale wind energy system shall be closer than one mile from a known golden eagle nest site." *How is adherence to the Migratory Bird Treaty*

C2-28

Act and Bald and Golden Eagle Protection Act applied to small-scale wind individually and cumulatively? How does the County propose to comply with those acts through this REO3?

According to the National Wind Coordinating Collaborative, Wind Turbine Interactions with Birds, Bats, and their Habitats: A Summary of Research Results and Priority Questions, Spring 2010, "Siting turbines away from where raptors concentrate may reduce raptor collision rates at wind facilities. Raptors are known to concentrate along ridge tops, upwind sides of slopes, and canyons (See CDFW recommendations ,above, June 2014 REO2 letter.) to take advantage of wind currents that are favorable for hunting and traveling, as well as for migratory flights" (Bednarz et al. 1990; Curry and Kerlinger 1998; Barrios and Rodriguez 2004; Hoover and Morrison 2005; Manville 2009)). Eagles' territory comprises one to six square miles. It would be reasonable to extend the range of nest site distance to small-scale wind turbines to five miles.

C2-28 Cont.

22.52.1635, C., 5. page 57/79. Standards for Utility-Scale Wind Energy (USWE). Impacts to Birds and Bats. *The California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development, published by the California Energy Commission (CEC) has been removed from the ordinance. If the County wishes to take a proactive approach to protection of birds and bats that has the CEC's approval, the guidelines would be a reasonable addition to requirement for a CUP. Please reinstate this requirement. Also see above comment for small-scale wind energy systems*

C2-29

22.52.1635, C., 5, c.,i., (A)(B)(C), page 57/79. Setbacks. "No part of a ground-mounted utility-scale wind energy facility shall be closer than 0.25 miles from the following: (A) Adopted Significant Ecological Areas; (B) Recorded open space easements and publicly designated preserve areas; and (C) Riparian areas and wetlands." *One quarter of a mile 1,320 feet is not adequate setback for USWE. As noted previously, riparian areas attract birds; "significant" wildlife exists in SEAs. Noise, shadowflicker, ice throw, wind turbine collapse, and fire danger posed by turbines would indicate a minimum of one mile from sensitive areas. Also, there is no updated SEA map that shows final boundaries that would define setbacks.*

C2-30

22.52.1635, C., 7, Table 22.52.1635-A, Location. Setbacks listed for onsite or offsite residence or habitable structure, above ground transmission line, public access easement or public trail, or property line, scenic drives and routes, and railways indicate 2X the tallest wind tower. Buildings other than a residential structure, 1X the tallest wind tower height. *Domestic wind turbine project setbacks can be as much as 2 miles from residences, and projects are also measured for the distance of sound travel, and are required to provide a sound study as proof of adequate distance from towns and residences, with a reasonable expectation of a 30dcb in rural areas. This also protects residents, to a degree, from experiencing low-frequency tones, gear noise, and shadowflicker. Scenic viewshed from public trails, conservation easements with viewpoints, need to be considered. If preservation of safety, public health, and viewshed related to conservation and open-space lands is a priority for RP, extension of setbacks to one mile and two miles to replace 1X and 2X tower heights in the Table. Note: There is no discussion of reducing impacts to viewshed with regard to Utility-Scale Wind Energy projects, and for good reason. They cannot be disguised with screens or landscaping. That is why larger setbacks are so important to implement.*

C2-31

C2-32

22.52.1640, A., 1., 2., page 59/79. Modifications. "1. Due to topographic or physical features of the site, strict compliance with all of the required standards would substantially and unreasonably interfere with the establishment of the proposed development on the subject property; and 2. The requested

C2-33

modifications would not be contrary to the purpose of this Part 15." *The REO3 allows energy developers to sidestep the few protections that do exist by simply requesting a "modification" to the requirements based on a claim that they "unreasonably interfere" with development. The only basis for denying such requests is if the County finds them to be "contrary to the purpose" of the REO. However, the County will* ***never*** *be able to make such a finding because the entire purpose of the Ordinance is to "support and facilitate" the development of RE projects (See Section 22.52.1600). The circular structure of these ordinance provisions ensures that large-scale energy projects will proceed quickly, with little or no community input, and without regard for community impacts. This is completely unacceptable, and the REO must be revised to strengthen (rather than decimate) protections for established rural residential communities. Please eliminate this Section A, items 1 and 2.*

C2-33 Cont.

22.52.1640, C., page 60/79. "A small-scale solar energy system that exceeds the maximum lot coverage required under subsection B.2 of Section 22.56.1615, requires approval of a Minor Conditional Use Permit pursuant to Part 1 of Chapter 22.56 and is subject to the development standards specified in subsections A and B.1 of Section 22.52.1615 and A.2 and C.5 of Section 22.52.1620 and conditions specified in subsections A.2.d and A.2.g of Section 22.52.1655." *Section 22.52.1615 of the REO3 allows "Small-Scale Solar Energy Systems" to occupy up to 2.5 acres of land (on a five acre parcel), and 22.52.1640 B even provides a "Minor Conditional use Permit" pathway to increase this limit even further. However, the amount of energy generated by 2.5 acres of solar arrays is so substantial that it could never be deemed "primarily for on-site use" on rural residential and agricultural lots, as evidenced by data recently provided by the National Renewable Energy Laboratory ("NREL"). According to NREL's data, 2.5 acres of "tilt" photovoltaic solar panels will provide more than enough energy to support 55 homes, which greatly exceeds the on-site energy "need" of* ***any*** *residential parcel. Obviously, a 2.5 acre "solar array" that is constructed on rural residential/agricultural land is* ***clearly*** *not intended to "generate direct electrical or thermal energy primarily for on-site use" because no rural residential use is equivalent to 55 homes. In other words, the intent of placing 2.5 acres of PV panels on any land other than industrially or commercially zoned property is clearly to generate energy for off-site use, and therefore solar generation plants of this size intrinsically fail to meet the definition of "Small-Scale Solar Energy System" found in 22.08.190 of the Ordinance. For this reason, the size limit for "small-scale solar energy systems" installed on parcels zoned for rural residential/agricultural use must be much less than 2.5 acres. The ARTC recommends that the size limit be constrained to less than one quarter of an acre, which is still sufficient to supply more than 5 homes according to NREL.*

C2-34

*The California Energy Commission describes utility-scale turbines as 50-500 kilowatts or more, and distributed use, or small-scale systems as 1-25 kilowatts. From the CEC Overview of Wind Energy: "The components of a utility-scale "wind farm" include wind turbines, an underground power transmission system, control and maintenance facilities, and a substation that connects the farm with the utility power grid. Utility-scale wind turbines are classified by size as follows: small (less than 50 kilowatts [kW]); intermediate (50 to 500 kW); and large (above 500 kW). . . . Another application of wind is in distributed use systems, which provide on-site power in either stand-alone or grid-connected configurations. Most such systems range in size from one to 25 kW. Distributed wind systems are applicable to industry, water districts, rural residences, agricultural use, and a wide variety of isolated power uses located in good wind resource areas" (*http://www.energy.ca.gov/wind/overview.html*). A 50kW small-scale wind system would power between 8 and 23 homes. This is not "primarily" onsite*

C2-35

use. This may work for multiple family homes, or unlimited residence zones, but The ordinances also allows 2 turbines on a gross acre of land. According to definition of small-scale wind, a limit of 16 -32 kW wind systems would be more than adequate for personal use.

C2-35 Cont.

22.52.1645, A., page 61/79. Uses Subject to Permits-Aviation Review. *Please add an item 5. "Evaluate aviation fire fighting capabilities in vicinity of local airports surrounded by wind towers and utility-scale solar energy projects."*

C2-36

Part 15. DUST CONTROL, AIR QUALITY

22.52.1655, A., 2., a., page 63/79. Uses Subject to Permits, Access roads, "Dirt access roads shall be treated with a suitable non-toxic long-term soil binder, or application of similarly effective material to control dust such as use of gravel." *The REO3 authorizes the use of "soil binders" to control dust on access roads and other disturbed areas. However, the Commission is advised that soil binders in this application are not appropriate for the following reasons (cited in the California Stormwater BMP Handbook): 1) Soil Binders do not hold up to pedestrian or vehicular traffic, therefore authorizing their use on access roads will provide ineffective (and non-existent) dust control. 2) Soil binders often do not penetrate compacted soils, and are therefore ineffective. 3) The performance of soil binders are soil-texture specific; some do not work on sandy soils, and others do not work on silty soils. Both soil types can be colocated within the Antelope Valley, therefore it is unlikely that an effective soil binder will be found. 4) Soil binders do not perform well in low humidity areas. The Antelope Valley is located in the high desert and typically has very low relative humidity, therefore authorizing the use of soil binders in the Antelope Valley will provide ineffective dust control. 5) The use of soil binders may have water quality impacts due to their chemical makeup. Throughout the Antelope Valley, residents rely on wells for drinking water, therefore authorizing the use of soil binders in the Antelope Valley without first documenting the potential impacts of such materials on drinking water quality is wholly inappropriate.*

C2-37

There are also problems with the dust control provisions that address non-access road areas and other portions of RE projects (see for example page 64 of 75). The REO3 appears to rely on existing vegetation to control dust levels, in that it authorizes mowing of such vegetation, but prohibits root system removal. This presumes that existing vegetation which thrives on the full sunlight of the Antelope Valley and perhaps relies on dew condensation for survival will continue to survive when covered over entirely by solar panels which eliminate both light and condensation. Worse yet, the Ordinance contains no "back up" dust control provisions detailed that must be implemented if (or rather when) the native vegetation dies out. This serious deficiency must be addressed before any renewable energy ordinance is adopted.

C2-38

22.52.1655, 2., d., page 65/79, Site Disturbance. " The measures found in this subsection shall in no way be construed as a substitute for compliance with State requirements imposed by the applicable Air Quality Management District."Add: *or air (and water) quality standards set forth by the Environmental Protection Agency.*

C2-39

22.52.1655, 2., d., v. (A), Fugitive Dust. "Fugitive dust emission shall be controlled by phased earthwork, site watering, use of clean gravel not to exceed a depth of six inches where applicable, application of non-toxic soil stabilizers, limiting public access on unpaved areas, posting private roadways with reduced speeds, and/or re-vegetation. Use of other fugitive dust mitigation measures

C2-40

may be implemented if determined by the Department of Regional Planning and Department of Public Works to be suitable methods to adequately control dust during construction, operations, and removal and restoration activities." *Detail other "suitable" methods of proposed alternative dust control. The residents of the Antelope Valley deserve protection, in place, before this ordinance is approved. Also, please add: Suitable methods of dust control shall not be toxic or polluting, and shall not cause further diminishment of air and surface water quality after becoming airborne, or waterborne.*

C2-40 Cont.

The REO3 makes no mention of Valley Fever, or its prevention. It presumes well managed dust control through the use of soil stabilizers and water during construction. Water causes the fungus to bloom, further exacerbating the problem of controlling its proliferation and stabilization during high wind events in the Antelope Valley.

County Department of Public Health Epidemiologist, "Dr. Ramon Guevara, has made it a personal mission to educate people about the emergent issue of cocci in his territory. In L.A. County, we have so many cases, and we have a potentially large problem, because the population is growing. . . The highest rate of infection is in Antelope Valley, a rapidly developing outpost of the county that adjoins the southern edge of the San Joaquin Valley. In the past decade, the number of cases there has increased five hundred and forty-five percent. . . In addition to vacant land, Antelope Valley has abundant sunshine and regular high winds, which make it a logical place to build alternative-energy infrastructure. With California pledging to get a third of its electricity from renewable sources by 2020, the region is pitching itself as a hub for the industry. There are some thirty solar projects in development. . . The construction of the solar facilities could have unintended consequences for the environment, though, releasing hazardous dust into the air. "In the afternoon, when the kids come out of school, it's always windy."[Dr.]Lauer [Phd., Environmental Microbiology at California State University, Bakersfield] says. "When they walk home, they all get exposed" ("Death Dust", New Yorker Magazine, January 20th, 2014).

C2-41

Additionally, Dr. Guevara's response letter to the REO2 states, "There are no standards of criteria here for what is acceptable in terms of amount and duration of resultant dust, measurements of dusts, and rules for feasibility and appropriateness of vegetation preservation, planting, and maintenance. These should be put forth with processes to involve the surrounding communities." This has not appeared in the REO3. Residents of the Antelope Valley deserve concrete, detailed dust monitoring and control plans in place and these should include air quality monitoring stations provided in the permitting process that will determine the levels of particulate matter in the air, reflecting the success or failure of vegetation-based dust control techniques, as well as soil binding products, to protect the population from Coccidioidomycosis.

22.52.1655. 2., e., page 68/79. Transmission Lines. "On-site and off-site transmission lines shall be placed underground to the satisfaction of the Department and Department of Public Works, except where above-ground crossings are otherwise required (such as over the California Aqueduct)." *Please add: Generation Tie Lines shall be placed underground to minimize effects to the viewshed.*

C2-42

22.52.1655. 2., f., page 68/79. Visual Impact. "Any utility-scale solar renewable energy facility that is placed within the viewshed of a Scenic Drive, Scenic Highway or Scenic Route identified in the General Plan or in an applicable Area Plan or Community Plan shall be analyzed for its visual impacts,

C2-43

and appropriate conditions relating to siting, buffering, height, and design of the facility may be imposed to minimize significant effects on the viewshed;" *Please add more certain language: "design of the facility will be imposed to eliminate effects on the viewshed."*

C2-43 Cont.

22.52.1655. 2., g., h., iii. page 69/79. Water Quality protection. Water Use. "Measures to protect groundwater and surface water from waste discharge shall be incorporated into the project design, as appropriate, and shall meet the requirements of the Regional Water Quality Control Board. *To guarantee projects' compliance with water quality protection, add: Water testing for waste and pollutant discharge to surface water and ground water shall be instituted, and results available for public view.*

C2-44

22.52.1655. 2., iii. "The project shall use piped recycled water if it is available from the public right-of-way within one mile from the project site at fair market value and suitable for use. If such piped recycled water does not meet the water demand, the project shall use piped potable water if it is available from the public right of-way within one mile from the project site at fair market value and suitable for use. *The REO3 does not address the enormous quantities of water that are required to operate solar RE projects. Allowing RE developers to obtain water from any source that they find convenient without regard for the impacts that such water withdrawals may have on the water table and domestic water wells is a substantial deficiency of the REO3. This deficiency is best addressed by requiring RE projects to rely solely on the use of recycled water (obtained from the "purple" hydrants that dot the Antelope Valley). To affect this purpose and eliminate the possibility of using potable water on RE infrastructure, the recycled water must be trucked in via suitably marked trucks* (perhaps *painted purple to match the fire hydrants) so that observers can monitor for compliance.*

Also, projects in the Antelope Valley eill have longer distances to travel to and from a tertiary treated water source, so the requirement of "within one mile" would render this a wasted point. If RE developers are allowed to use potable water available within one mile of their projects, then a concentration of projects in one area would cause a more rapid loss of ground water. Local residents are also concerned that small water districts that serve them, as well as agricultural interests with large wells are selling water to the huge developments inside and outside their communities. In this time of serious drought there may not be enough water to serve RE development. Requiring the use of recycled water would help protect water sources for residents.

C2-45

NOISE

22.52.1655, C., 1., page 70/79. Small-Scale wind energy systems. Noise. " Noise from a small-scale wind energy system shall not exceed 60 dBA SEL (single event noise level), as measured at the closest neighboring inhabited dwelling." *The treatment of Noise Pollution in the REO3 is deficient in a number of ways. 1) It applies only to small-scale wind energy facilities and ignores the substantially louder noise potential of utility-scale wind generation facilities (both structure- and ground-mounted). The noise limit application is too narrowly constrained in the REO3, and must be expanded to address all utility-scale generation projects. 2) It constrains the consideration of noise impacts to only existing inhabited dwellings, and ignores businesses and outdoor uses such as equestrian facilities (barns, corrals, trails), animal rescue facilities, agricultural uses, etc. It also ignores impacts to adjacent land that has not yet been developed for residential or agricultural use; it is likely that such land will be rendered worthless given the high noise threshold that the draft ordinance allows. This must be rectified by imposing a fence-line noise limit. 3) It establishes a very high (60 dB) noise threshold that*

C2-46

C2-47

C2-48

Is entirely unsuitable for rural areas. Ambient noise levels in such areas are typically less than 45 dBA, (quiet rural areas ambient level is 24dBA) and an increase of 10 dBA results in an approximate doubling of the sound, while an increase of 20 dBA results in an approximate quadrupling of the sound. The draft ordinance establishes a 60 dBA threshold, which essentially triples the ambient noise level in rural areas. To frame the issue in more understandable terms, 60 dBA is approximately the noise level one experiences 3 feet from an operating clothes washer or air conditioner. As it currently stands, the ordinance authorizes this continuous and exceptionally loud "noise overlay" in rural areas where the existing noise profile is virtually non-existent. The Commission is reminded that rural communities exist because rural residents seek the peace and quiet afforded by such communities. All of this is threatened by the high noise threshold established by theREO3. To address this concern, the threshold value must be reduced to 50 dBA. 4) It relies on a "Single Event Level" parameter which does not properly or accurately represent the continuous noise profile generated by wind energy facilities. While uses which occasionally create single noise events of 60 dBA or more may be reasonable in rural areas, uses which generate such noise levels on a continuous basis (such as wind turbines) are not. 5) Nowhere does the ordinance require any project proponent to provide noise data as part of the application process, nor does it require a "follow up" assessment at the site to confirm this noise provision is met. Worse yet, it provides no backstop protections to ensure compliance with this noise limit over time and after the wind turbine bearings and contact surfaces are worn down and no longer "true". A multilevel chart of allowable noise generation that depends on zoning and location would be a more democratic approach to noise levels that differ so much across the county. This currently proposed ordinance would essentially hold rural residents hostage to an urban noise level.

C2-48 Cont.

22.52.1655., C., 2., page70/79. Visual Impact. "2. Visual Impact. Any small-scale wind energy system placed within the viewshed of a Scenic Drive, Scenic Highway or Scenic Route identified in the General Plan or in an applicable Area or Community Plan shall be assessed for its visual impacts, and appropriate conditions shall be applied relating to siting, buffers, and design of the system, Add: *and may result in complete restriction. This should apply to utility-scale wind RE.*

C2-49

22.52.1660, Enforcement procedures. B., page 71/79. Nothing in this Section shall preclude the Director or designee from issuing a warning, field notice of violation, Notice of Violation, or citation prior to issuing a Final Zoning Enforcement Order for a non-compliant small-scale solar energy system, small-scale wind energy system, utility-scale solar energy facility, utility-scale wind energy facility or temporary meteorological tower. *Please add a maximum number of violations that may be issued before a final notice of non-compliance is ordered. We understand a final notice can be issued any time, but this item B would allow an infinite number of violations, and the project could subsequently avoid a final order without an enumeration of process and ultimate action.*

C2-50

MINOR CONDITIONAL USE PERMITS

C2-51

Section 67, 22.56.030., 10., a., page 74/79. Application Information Required. "Maps in the number prescribed, and drawn to a scale specified by the director, showing the location of all property included in the request, the location of all highways, streets, alleys and the location and dimensions of all lots or parcels of land within a distance of 500 feet from the exterior boundaries of the subject parcel of land. If the application is for a minor conditional use permit in accordance with Section 22.56.085, a distance of 300 feet from the exterior boundaries of the subject parcel of land shall be provided in lieu of 500 feet." *A minor CUP, which allows accessory uses of a substantial nature, as currently*

C2-52

C2-53

C2-54

unamended in this REO3; such as so-called small scale solar energy system covering 2.5 acres of a 5 acre parcel, Modification of a Significant Ridgeline, structure mounted utility-scale wind energy facilities, and temporary met towers. In the Antelope Valley, noticing requirements should include a further distance or at least match that required for a CUP (500 ft.). Without signage, a Minor CUP may go unnoticed. Include signage for North County Projects, or consider written and email notification to town councils and land owners within 1000 feet.

C2-54 Cont.

Section 69., 22.56.085, page 76/79, Minor Conditional Use Permit. An application for a minor conditional use permit may be filed for the following uses:

1. **MODIFICATION OF SIGNIFICANT RIDGELINE PROTECTION PROVISIONS AS PROVIDED IN SECTIONS 22.44.143 D. 10. b; 22.44.143 D.10.c.; or 22.44.144 D. b.

2. **SMALL SCALE SOLAR ENERGY SYSTEMS, GROUND MOUNTED, IN THE OPEN SPACE AND WATERSHED ZONE, IN ACCORDANCE WITH PART 15 OF CHAPTER 22.52.

3. **SMALL SCALE WIND ENERGY SYSTEM IN ACCORDANCE WITH PART 15 OF CHAPTER 22.52.

4. **UTILITY-SCALE WIND ENERGY FACILITY, STRUCTURE MOUNTED, IN ALL ZONES EXCEPT SINGLE FAMILY RESIDENCE ZONE, IN ACCORDANCE WITH PART 15 OF CHAPTER 22.52.

C2-55

Remove item 1 as an item approved to file for a minor conditional use permit. Communities with significant ridgelines identified in CSDs have obviously identified them as "significant." To allow modification and variance from a CSD is counter to the purpose of that document, meant to protect rural communities from inappropriate development. This requires a CUP, with appeal to the board of supervisors.

Remove item 2 as an item approved to file for a minor conditional use permit. As discussed previously, the 2.5 acre allowance on 5 acre plus properties need more stringent review, since it qualifies as a "utility-scale" RE project, capable of powering 55-78 homes, and according to definitions provided in this unamended document. A CUP is required. See comments, page 8, above.

C2-56

Remove item 3 as an item approved to file for a minor conditional use permit. In 22.52.1625, the REO3 allows 2 small-scale wind energy systems for 5 gross acres of land. For the same reasons listed above, the so-called small-scale wind energy system, as indicated in the ordinance is 50kW; enough to power 8-23 homes. Two turbines would power 16-46 homes. The California Energy Commission describes utility-scale turbines as 50-500 kilowatts or more, and distributed use, or small-scale systems as 1-25 kilowatts. From the CEC Overview of Wind Energy: "The components of a utility-scale "wind farm" include wind turbines, an underground power transmission system, control and maintenance facilities, and a substation that connects the farm with the utility power grid. Utility-scale wind turbines are classified by size as follows: small (less than 50 kilowatts [kW]); intermediate (50 to 500 kW); and large (above 500 kW). . . . Another application of wind is in distributed use systems, which provide on-site power in either stand-alone or grid-connected configurations. Most such systems range in size from one to 25 kW. Distributed wind systems are applicable to industry, water districts, rural residences, agricultural use, and a wide variety of isolated power uses located in good wind resource

C2-57 Cont.

areas" (http://www.energy.ca.gov/wind/overview.html). A 50kW small-scale wind system would power between 8 and 23 homes. This is not "primarily" onsite use. This may work for multiple family homes, or unlimited residence zones, but The ordinances also allows 2 turbines on a gross acre of land. According to definitions of s A limit of 16 -32 kW wind systems would be more than adequate for personal use. This is not small-scale, this is utility scale, and meant for offsite use, and should fall under a CUP.

C2-57 Cont.

Remove item 4 as an item approved for a minor conditional use permit. Utility-scale, by its nature would be hard pressed to be classified as "minor" in nature, especially from a noise impact, visual impact, and biological impact. This requires a CUP.

C2-58

Section 69., 22.56.085, D., page 78/79. The decision of the Hearing Officer may be appealed to the commission. All appeals shall be filed within the time period set forth in, and shall be subject to all of the other provisions of Part 5 of Chapter 22.60 except that the decision of the commission shall be final and effective on the date of the decision and shall not be subject to further administrative appeal, unless the permit was considered by the commission concurrently with a decision on a general plan or specific plan amendment, zone change, development agreement or other legislative action. ***The underlined sentence should be stricken from this ordinance and kept as it is recorded in Part 5, 22.60.200, A: "Appeals. To avoid results inconsistent with the purposes of this Title 22, unless otherwise specified or limited by specific provisions of this title, decisions of the director or hearing officer may be appealed to the commission; and decisions of the commission may be appealed to the board of supervisors." As the ordinance is written now, there is no appeal for a Minor CUP. As you can see above, there are problems with what is considered a minor modification with insignificant effect. This is an affront to the political process, by which constituents may request a decision be made by their elected officials. The part D would eliminate that possibility. In this REO3, that has the potential to substantially impact rural communities, we urge RP in the strongest possible way, to preserve residents' right to appeal to the board of supervisors regarding any permit approved by the planning commission.*

C2-59

Again, we appreciate the opportunity to work toward the best version of this Renewable Energy Ordinance. We respectfully request the changes enumerated in this letter, and believe our best interests lie in protecting our communities from inappropriate renewable energy development, while encouraging distributed generation that will contribute greatly to the preservation of not only our rural lifestyle, but the environment that makes that available to us.

C2-60

Yours truly,

Chris Wangsgard
President

Susan Zahnter
Vice President

Karen Plemmons
Secretary

Diane Phillips
Treasurer

Richard Zahnter
Member at Large-scale

Copies to: Supervisor Michael D. Antonovich, Field Deputy Norm Hickling, Planning Deputy Edel Vizcarra

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Response to Comment Letter C2

Three Points–Liebre Mountain Town Council
March 12, 2015

C2-1 This comment is introductory in nature. The concerns summarized in this introduction are addressed in the responses below.

C2-2 The 45-day review period provided for the Draft EIR complies with CEQA Guidelines Section 15105. The beginning and ending dates for public review of the Draft EIR was included on the Notice of Availability, which was mailed to 300 stakeholder individuals and organizations, emailed to approximately 2,300 addresses, and published in the Los Angeles Times, Acton Agua Dulce Weekly News, Glendale News-Press, Los Angeles Daily Journal, Antelope Valley Press, La Opinion, and The Signal Newspaper. Additionally, the starting and ending dates of the review period for the Draft EIR were posted on the County's website: http://planning.lacounty.gov/energy. These noticing procedures complied with and exceeded the noticing requirements set forth in CEQA Guidelines Section 15087.

The request for an extended review period for the proposed Zoning Code amendments will be included in the Final EIR for review and consideration by the decision makers. The second draft of the proposed Zoning Code amendments was released on May 5, 2014. The third draft of the proposed Zoning Code amendments depicts the revisions from the second draft in strikethrough and underline. There is no deadline to submit comments on the third draft. All comments received have been evaluated by Regional Planning and any additional comments received will be evaluated by Regional Planning.

C2-3 In response to this comment, the proposed Zoning Code amendments have been updated (see Appendix A). The definitions of the types of projects that would be regulated by the proposed Zoning Code amendments have been amended to explicitly state that such technologies (i.e., concentrated solar thermal collectors) would be prohibited. Furthermore, the analysis in the Draft EIR assumes that such technologies would not be allowed under the proposed Zoning Code amendments (see Section 3.3.4 in the Draft EIR).

C2-4 This comment consists of a requested revision to the definitions in the proposed Zoning Code amendments and does not pertain to the environmental analysis in the Draft EIR.

C2-5 This comment consists of a requested revision to the proposed Zoning Code amendments and does not pertain to the environmental analysis in the Draft EIR.

However, this request will be included as part of the Final EIR for review and consideration by decision makers.

Impacts of the proposed project related to recreational facilities are addressed and considered in Section 4.15 of the Draft EIR. Utility-scale ground-mounted renewable energy projects would be subject to discretionary approval and further CEQA review. As such, potential land use inconsistencies within Commercial Recreation zones would be evaluated on a project-by-project basis.

C2-6 The permitting requirements described in this comment are not correct. As stated in Section 22.32.190 of the Zoning Code, "in Zone M-4 a conditional use permit is required for uses in subdivisions 1, 2, and 3 of this subsection A only where the use listed is located within 300 feet of a public school, public park, or a residential or A-1 Zone." This statement does not apply to renewable energy projects, as those projects would be listed underneath Subdivision 6 of Subsection A upon approval of the proposed Zoning Code amendments. The proposed Zoning Code amendments would not add any renewable energy uses to the list of uses that could be exempt from a CUP in Zone M-4. As such, all renewable energy projects requiring further discretionary review in Zone M-4 (see Table 10-2) would require CEQA review that would identify impacts to any sensitive uses that would potentially be affected.

This comment also discusses the potential effects of noise from utility-scale wind energy facilities. The effects of noise are addressed in Section 4.12 of the Draft EIR. Mitigation measure MM NOI-3 identified in Section 4.12 requires consultation with the County Department of Public Health regarding operational noise for future utility-scale wind energy projects.

Approval of the proposed Zoning Code amendments would not entitle any wind turbines, as further discretionary review would be required for any such facilities (small scale or utility scale). In fact, the proposed Zoning Code amendments would place more restrictions on utility-scale ground-mounted wind energy facilities than currently exist in the Zoning Code.

C2-7 The provision described in this comment is already part of the Zoning Code and is therefore not part of the proposed Zoning Code amendments. As such, this provision is already adopted as part of the existing, current Zoning Code and is not evaluated as part of the proposed project in the Draft EIR.

C2-8 In response to this comment, the proposed Zoning Code amendments have been revised to clarify that for utility-scale projects, where the proposed Zoning Code

amendments and a provision of the zone or supplemental district regulates the same matter, whichever provision is more restrictive shall apply, except for the wind tower height, height for structure-mounted projects, and fence heights established in the proposed Zoning Code amendments.

It is noted that the proposed Zoning Code amendments do not entitle or propose any utility-scale ground-mounted renewable energy facilities. If a future project is proposed, the applicant would need to apply for a CUP and the project would be subject to project-level review under CEQA. The EIR prepared for the proposed Zoning Code amendments addresses the environmental effects of renewable energy projects developed pursuant to the proposed Zoning Code amendments on all areas over which the County has jurisdiction, including areas within Community Standards Districts (CSDs).

C2-9 The concerns listed in this comment (visual impacts, air quality, Valley Fever, wildlife, safety, and biological resources) are all discussed in more detail in the responses below.

C2-10 See response C2-8 for a discussion of the applicability of the proposed Zoning Code amendments.

C2-11 Subsequent to the release of the third version of the proposed Zoning Code amendments, a subdivision 3 has been added to Part E (the updated proposed Zoning Code text is provided in Appendix A). This new subdivision requires that any modifications that would (a) convert an existing project generating energy primarily for on-site use into a project generating energy primarily for off-site use or (b) convert an existing project generating energy primarily for off-site use into a project generating energy primarily for on-site use would be subject to the proposed Zoning Code amendments. The permitting requirements for any of the modifications listed in Part E would be equivalent to the permitting required under the proposed Zoning Code amendments (see Table 10-2). As specified in Table 10-2, small-scale solar energy projects and utility-scale structure-mounted solar energy projects would not require a CUP or a Minor CUP in most zones. (As such, modifications to such projects would not require a CUP or a Minor CUP, unless that project were to be modified to the extent that such a permit would be required [i.e., if a small-scale ground-mounted solar energy system were to be modified so that it fell under the definition of utility-scale ground-mounted solar energy facility]). The permitting requirements for small-scale solar energy projects do not represent a substantial change relative to the existing permitting requirements for such projects (see Table 10-2).

As shown in Table 10-2, all wind energy projects and utility-scale ground-mounted projects undergoing one or more of the modifications described in Part E would be required to obtain a CUP or a Minor CUP and to undergo the applicable noticing procedures. Furthermore, both the CUP and Minor CUP processes involve public noticing and a public hearing. (However, it is noted that the Minor CUP process does not require on-site posting of notices.)

C2-12 The types of projects that would be required to show watercourses on a site plan as part of their application package for a CUP are utility-scale ground-mounted renewable energy facilities. As part of the application review process, the County would determine the presence of aquatic, riparian, ephemeral, and wetland habitats on the project site.

While impacts of utility-scale ground-mounted projects to water quality and biological resources are addressed at the programmatic level in the EIR, site-specific impacts to watercourses and their associated habitat would be evaluated on a project-by-project basis during the discretionary permitting process and the CEQA review process required for future utility-scale ground-mounted renewable energy projects. During these processes, any permits that may be required from CDFW (including a Streambed Alteration Agreement under Section 1600 of the California Fish and Game Code) would be identified. It should also be noted that such facilities would be prohibited from the A-1 zone, the O-S and W zones, the residential zones, and SEAs. The design of these facilities would be further subject to setbacks from a variety of land uses and land forms, such as certain visually and/or biologically important ridgelines. These land use prohibitions and regulations would limit the likelihood of a future utility-scale ground-mounted renewable energy facility resulting in a direct impact to a watercourse or to aquatic, riparian, ephemeral, and wetland habitats. Furthermore, the EIR provides mitigation to ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future renewable energy projects that would be subject to further discretionary review (see MM BIO-1 and MM BIO-2). MM BIO-1 provides recommendations for standard mitigation measures that could be applied if significant effects are identified during project-level CEQA review. Recommended measures provided in MM BIO-1 that would specifically address effects to jurisdictional waters are as follows:

- Establish buffers of a minimum of 100 feet between solar panels and the edge of existing lakes, reservoirs, wetlands, playas, and other water features.
- For significant impacts to sensitive species, natural communities, or ecological processes (like wildlife movement or hydrological processes) resulting from

ground disturbance impacts associated with ground-mounted renewable energy facilities, compensatory mitigation would generally involve one or a combination of the following actions: On or off-site habitat preservation, habitat restoration/enhancement, long-term habitat management activities, and/or species translocations.

- For impacts to jurisdictional wetlands and waters from ground-mounted renewable energy facilities, permits and/or approvals would be required from the appropriate regulatory agencies with jurisdiction over the wetlands and waters.
- For potential impacts to avian species related to reflection/refraction of light from solar projects (referred to as the "lake effect"), solar projects sited away from existing lakes, reservoirs, wetlands, playas, and other water features would have a reduced potential to attract waterfowl and other bird species and a reduced potential to impact these species from collision with panels; therefore, projects sited adjacent to existing lakes, reservoirs, wetlands, playas, and other water features or areas where bird use determined to be high and the risk of avian collision with panels is considered high should incorporate anti-reflective or low-glare solar panels or design the configuration of solar panels so that they do not mimic natural waterbodies (e.g., avoid large contiguous areas of solar panels; intersperse areas of panels with areas of no panels).

See Response S1-12, S1-14, and S1-16 regarding impact avoidance and minimization measures for small-scale ground-mounted solar energy systems. Although these systems would be allowable without further discretionary review in certain zones under the proposed Zoning Code amendments, developers of such facilities would still be required to comply with Section 1600-1616 of the California Fish and Game Code if the proposed project would result in the alteration or degradation of a stream, river, or lake. Any impacts to jurisdictional "waters of the state" would be addressed through the CDFW permitting process. It should be noted that small-scale ground mounted solar facilities in the O-S and W zones would require discretionary approval and further review under CEQA. As such, these projects would be subject to MM BIO-1 and MM BIO-2 described above if they are located in the O-S and W zones. These zones contain the highest concentration of biologically sensitive areas relative to other zones in the County.

C2-13 This comment consists of a requested revision to the proposed Zoning Code amendments and does not pertain to the environmental analysis in the Draft EIR. Impacts of utility-scale ground-mounted renewable energy projects related to visual resources are addressed at the programmatic level in Section 4.1.4 of the Draft EIR. Utility-scale ground-mounted renewable energy projects would be

subject to discretionary approval and further CEQA review. As such, potential visual impacts resulting from future generation tie lines would be addressed on a project-by-project basis.

This request for a revision to the proposed Zoning Code will be included as part of the Final EIR for review and consideration by decision makers. It is noted that the proposed Zoning Code amendments require project infrastructure, such as transmission lines, to be shown in site plans. The proposed Zoning Code amendments also give the Director of Regional Planning authority to request additional application materials, which could include the depiction of generation tie lines, when they are a part of a project.

C2-14 This comment consists of a requested revision to the proposed Zoning Code amendments and does not pertain to the environmental analysis in the Draft EIR. This request for a revision to the proposed Zoning Code will be included as part of the Final EIR for review and consideration by decision makers.

The proposed Zoning Code identifies baseline requirements for dust control. The effects of dust resulting from utility-scale ground-mounted renewable energy projects are analyzed at the programmatic level in Section 4.3 and Section 4.6 of the Draft EIR. See Response C2-37, C2-38, and C2-41 for more information about dust control measures.

C2-15 The potential for avian species to be attracted to or otherwise impacted by the wires, equipment, and vegetation near wind turbines is discussed in the Avian and Bat Risks and Indirect Impacts sections of Criterion A and B in the Section 4.4.4 of the Draft EIR. Bird collisions with guy wires supporting wind turbines and temporary MET towers were identified as a potential impact, and the attraction of species to modified habitats around facilities was also identified as a potential indirect impact to bird species. However, in response to this comment, the Zoning Code amendments have been revised to prohibit guy wires on temporary MET towers and small-scale wind energy systems (see Appendix A). Guy wires would also be prohibited on utility-scale wind energy projects.

C2-16 This comment consists of a requested revision to the proposed Zoning Code amendments and does not pertain to the environmental analysis in the Draft EIR. This request for a revision to the proposed Zoning Code will be included as part of the Final EIR for review and consideration by decision makers.

As described in Response C1-5, impacts of the proposed project on wildlife movement are discussed in Section 4.4.4 of the Draft EIR. While the impacts of fences are not specifically discussed, a significant and unavoidable impact to wildlife movement was identified for projects that may typically include perimeter fencing, such as utility-scale ground-mounted facilities. This significance determination was identified because such projects typically require large areas of land in areas where wildlife is present and may therefore impact existing wildlife corridors. Indirect effects from increased noise levels or nighttime lighting, which would potentially discourage movement within corridors and linkages, were also identified in Section 4.4 of the Draft EIR.

It should be noted that future utility-scale ground-mounted projects would trigger involvement of CDFW if impacts to special-status species are identified. As such, review and assessment by CDFW of future utility-scale ground-mounted projects would occur on a project-by-project basis.

It is further noted that the provision quoted in this comment has been changed subsequent to the release of the Draft EIR. The phrase "unless otherwise modified by the Hearing Officer" has been removed from this provision for utility-scale ground-mounted facilities. Per CEQA Guidelines Section 15088.5, this revision to the proposed Zoning Code amendments does not constitute a significant new change resulting in a need to recirculate the EIR.

C2-17 This comment consists of a requested revision to the proposed Zoning Code amendments and does not pertain to the environmental analysis in the Draft EIR. This request for a revision to the proposed Zoning Code will be included as part of the Final EIR for review and consideration by decision makers.

Potential aesthetic impacts of utility-scale ground-mounted solar energy facilities are addressed in Section 4.1.4 of the Draft EIR. Additional restrictions could be placed on the heights of utility-scale ground-mounted solar energy facilities on a project-by-project basis during future discretionary and CEQA review of such projects. The 25-foot limit provided in the proposed Zoning Code amendments would be the baseline standard and would establish a height standard for such projects where there currently are none. The proposed Zoning Code amendments also contain other provisions to protect scenic resources, such as conditions of approval regarding effects to scenic resources and ridgeline setbacks.

C2-18 This comment consists of a requested revision to the proposed Zoning Code amendments and does not pertain to the environmental analysis in the Draft EIR. The

comment requests that the proposed Zoning Code amendments should not allow for motion-sensor lighting and that lighting should remain off unless emergency maintenance is required. This request for a revision to the proposed Zoning Code will be included as part of the Final EIR for review and consideration by decision makers.

Per the proposed Zoning Code amendments, the requirement for motion-sensor lighting would apply to utility-scale ground-mounted solar energy facilities and utility-scale wind energy facilities located within the Rural Outdoor Lighting District (see Part 9, Chapter 22.44 of the Zoning Code). The effects of future utility-scale facilities relative to lighting are addressed at the programmatic level in Section 4.1.4 of the Draft EIR. The effects of lights on nighttime views vary throughout the County. The requirements for lighting established in a proposed Zoning Code are consistent with the Dark Skies Ordinance (Part 9, Chapter 22.44 of the Zoning Code). Additionally, as stated in the proposed Zoning Code amendments, lighting in the Rural Outdoor Lighting District is limited to that required for safety and security. The proposed Zoning Code amendments also require light to be shielded and directed downward to avoid light trespass. Further restrictions could potentially be applied for utility-scale ground-mounted projects on a project-by-project basis during future discretionary and CEQA review of such projects.

C2-19 The section of the proposed Zoning Code amendments cited in this comment consists of a development standard for utility-scale solar energy facilities relative to significant ridgeline protections. However, the comment consists of a request for revisions to the development standards for utility-scale wind energy facilities. While the development standards for utility-scale solar energy facilities remain the same, the County has revised the development standards for utility-scale wind energy facilities relative to ridgelines subsequent to the release of the Draft EIR (see Appendix A and Response S1-10). These revisions provide additional protections for ridgelines that are aesthetically and/or biologically important.

C2-20 This comment consists of a suggested Zoning Code provision and does not pertain to the adequacy of the environmental analysis in the Draft EIR. The suggestion will be included in the Final EIR for review and consideration by the decision makers.

The effects of the proposed project on nighttime views are addressed in Section 4.1.4 of the Draft EIR. Any FAA lights that are required would be shown on the proposed site plan for any wind energy project or temporary MET tower developed pursuant to the proposed Zoning Code amendments. In addition, the proposed Zoning Code amendments require aviation review for any project requiring discretionary approval that is proposed within a Military Installations

and Operations Area or Airport Influence Areas as identified by the General Plan or applicable Airport Land Use Compatibility Plan. It is also noted that the County cannot impose requirements on FAA-required safety lights, as such lights must comply with FAA standards. Safety lights would only be required where they are required by FAA.

C2-21 This comment consists of a suggested revision to the Zoning Code amendments involving differentiation between the term "wind tower" and "temporary MET tower." This suggestion does not pertain to the adequacy of the environmental analysis in the Draft EIR. The suggestion will be included in the Final EIR for review and consideration by the decision makers. Both of these terms are defined in the Zoning Code.

C2-22 In response to this comment, the proposed Zoning Code amendments have been revised to prohibit guy wires on temporary MET towers.

C2-23 This comment consists of a suggested revision to the Zoning Code amendments involving removal of temporary MET towers after a maximum of two years. This suggestion does not pertain to the adequacy of the environmental analysis in the Draft EIR. The suggestion will be included in the Final EIR for review and consideration by the decision makers. It is noted that temporary MET towers are temporary uses, and requirements for decommissioning of such structures would be established during the discretionary approval process for such projects.

The visual effects of future temporary MET towers developed pursuant to the proposed Zoning Code amendments have been addressed at the programmatic level in Section 4.1.4 of the Draft EIR.

C2-24 This comment expresses a question about the applicability of the requirements in the table titled "Setback Requirements for Temporary Meteorological Towers." This comment does not pertain to the adequacy of the environmental analysis in the Draft EIR. However, it is noted that this table has been removed from the proposed Zoning Code amendments subsequent to the release of the Draft EIR. The setbacks for temporary MET towers and small-scale wind energy systems that are set forth in the existing Part 15 would remain in place under the proposed project. Refer to the Preface of this Final EIR for details about why the existing provisions for small-scale wind energy systems and temporary MET towers would remain in place under the proposed project.

C2-25 Refer to Response C2-19.

C2-26 This comment contains a recommendation that the County institute a database that identifies locations of small-scale wind energy systems and include review by independent biologists of the effects of the small-scale wind energy systems. This comment does not pertain to the adequacy of the environmental analysis in the Draft EIR. The recommendation will be include in the Final EIR for review and consideration by decision makers. The environmental effects of small-scale wind energy systems were evaluated in this EIR at the programmatic level. The cumulative effects of renewable energy development in the County, in conjunction with other types of development in the County and in surrounding jurisdictions, is evaluated in Chapter 5 of this EIR. See Response C2-27 for more information on how the cumulative effects of small-scale wind energy systems will continue to be examined and disclosed.

C2-27 This comment expresses concern regarding cumulative effects of small-scale wind energy systems on biological resources, noise, shadow flicker, and viewsheds. The EIR that has been prepared for the proposed Zoning Code amendments consists of an environmental analysis of the effects of renewable energy projects developed pursuant to the proposed Zoning Code amendments. For wind energy projects, this analysis is programmatic in nature (see Section 10.1 for a discussion of programmatic analysis). In addition to the programmatic analysis provided in this EIR, future small-scale wind energy systems would require discretionary permits and project-specific CEQA review.

CEQA requires analysis of cumulative effects in Initial Studies and EIRs (CEQA Guidelines Section 15130, 15065). Additionally, CEQA exemptions are not applicable when the cumulative impact of successive projects in the same type in the same place, over time is significant (CEQA Guidelines Section 15300.2). Cumulative impacts are defined in CEQA Guidelines Section 15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. (a) The individual effects may be changes resulting from a single project or a number of separate projects. (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." In accordance with these guidelines, CEQA review for future small-scale wind energy projects would consider the effects of the proposed project in conjunction with similar projects that were constructed in the past, are being constructed at the time of the analysis, or are considered reasonably foreseeable.

C2-28 All future small-scale wind energy projects would be required to comply with the Migratory Bird Treaty Act and the Golden Eagle Protection Act. As discussed in Response O1-2 and O1-3, the provisions of the Zoning Code amendments contain a variety of measures for protection of avian species.

The effects of future small-scale wind energy systems developed pursuant to the proposed Zoning Code amendments on biological resources such as avian species are addressed in Section 4.4.4 of the Draft EIR. The recommendation included in this comment to extend the setback of small-scale wind energy systems from golden eagle nest sites to five miles will be included in the Final EIR for review and consideration by decision makers.

C2-29 This comment pertains to removal of the requirement for utility-scale wind energy facilities to comply with the *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development (Guidelines)*. The request for reinstatement of this requirement will be included in the Final EIR for review and consideration by decision makers.

The effects of utility-scale wind energy facilities on avian species are addressed at the programmatic level in Section 4.4.4 of the Draft EIR. Utility-scale wind energy facilities would be subject to discretionary review and project-level CEQA analysis (see Section 10.1 for a description of discretionary review). As such, these projects could potentially be subject to additional mitigation measures if significant impacts are identified during the project-specific CEQA review. For more information on siting considerations for wind turbines, see Response O1-5.

C2-30 This comment consists of a request to extend the setback from a quarter mile to one mile between utility-scale wind energy facilities and SEAs, open space easements, publicly designated preserve areas, and riparian areas and wetlands. This will be included in the Final EIR for review and consideration by decision makers.

Figure 4.4-1 of the Draft EIR shows the existing and proposed SEA boundaries. While this comment does not pertain to the analysis in the Draft EIR, it is noted that the effects of utility-scale wind energy facilities on biological resources are addressed in Section 4.4.4 of the Draft EIR. While topics such as ice throw, shadow flicker, and wind turbine collapse are not all specifically addressed in Section 4.4.4, indirect effects of utility-scale wind energy facilities are addressed, including lighting, dust, dust suppression efforts, and increased human presence. Additional indirect effects and site-specific mitigation may be identified as necessary during project-specific discretionary permitting processes and associated CEQA review. The setbacks

proposed in the proposed Zoning Code amendments constitute baseline development standards where no specific standards are currently in place for these types of projects. Depending on site-specific considerations, more stringent requirements could be imposed for future projects in the form of mitigation measures or project design features. For more information on siting considerations for wind turbines, see Response O1-2.

C2-31 This comment consists of a request to extend the setbacks for utility-scale wind energy facilities. This comment does not pertain to the adequacy of the environmental analysis in the Draft EIR but will be included in the Final EIR for review and consideration by decision makers.

It is noted that the effects of utility-scale wind energy facilities related to aesthetics are addressed in Section 4.1.4 of the Draft EIR, noise is addressed in Section 4.4.4 of the Draft EIR, and shadow flicker is discussed in Section 4.8.8 of the Draft EIR. The setbacks proposed in the proposed Zoning Code amendments constitute baseline development standards where none are currently in place for utility-scale wind energy facilities. Depending on site-specific considerations, more stringent requirements could be imposed on future projects in the form of mitigation measures or project design features. For more information on siting considerations for wind turbines, see Response O1-5.

C2-32 The effects of utility-scale wind energy facilities on viewsheds are analyzed in Section 4.1.4 of the Draft EIR. The recommendations for increased setbacks will be included in the Final EIR for review and consideration by decision makers.

C2-33 This comment consists of a request to eliminate a part A of the "Modifications" section in the proposed Zoning Code amendments. It should be noted, however, that a modification pursuant to part A would require a CUP. This would involve discretionary review, CEQA review, and a public hearing. As such, the modifications described in this comment would be reviewed on a case-by-case basis by the decision makers and would also include public involvement. Furthermore, in order to obtain such a modification, the applicant must prove that "due to topographic or physical features of the site, compliance with the required standards would substantially and unreasonably interfere with the establishment of the proposed development." As such, the project site must have unique development constraints that preclude implementation of a project that would otherwise be allowable under the proposed Zoning Code amendments.

This comment does not pertain to the environmental analysis in the Draft EIR but will be included in the Final EIR for review and consideration by decision makers.

C2-34 This comment expresses concern regarding the maximum size established for small-scale ground-mounted solar energy systems. This comment does not pertain to the environmental analysis in the Draft EIR. The recommendation to reduce the maximum size of small-scale ground-mounted solar energy systems to one quarter of an acre in rural residential and agricultural zones will be included in the Final EIR for review and consideration by decision makers.

Response S1-15 describes the reasoning for the maximum limit of 2.5 acres or 25% of a lot, whichever is lesser. As described in Response S1-15, such systems by definition would provide primarily for on-site use and would need to be sized accordingly. A lot that accommodates a system of the maximum allowable size would also contain a use requiring the amount of energy generated by such a system. Such a lot would also contain enough vacant land to accommodate both the ground-mounted system and the use that requires a system of the maximum size. As such, projects would generally not extend to 2.5 acres in size. As described in Section 3.3.3 of the Draft EIR, a typical residential solar energy system is 3 to 10 kW, which would range in size from 0.005 acres to 0.02 acres. In residential and agricultural zones, the sizes of small-scale ground-mounted solar energy systems would generally be limited by the allowable uses and densities of that zone.

The effects of small-scale ground-mounted solar energy systems up to 2.5 acres in size were evaluated for their environmental effects in the EIR. Pursuant to CEQA Guidelines 15126.4(2), avoidance, minimization, and mitigation measures have been incorporated into the proposed Zoning Code amendments for these projects. See Response to comment letter S1 for further discussion of these measures.

C2-35 This comment consists of a suggested revision to the definition of small-scale wind energy system to reduce the allowable sizes of such systems. California Government Code Section 65894 and Section 25744 of the California Public Resources Code both establish a maximum rated capacity of 50 kW for small-scale wind energy systems. Furthermore, the existing regulations for small-scale wind energy systems would be retained under the proposed project. The existing maximum rated capacity for such project is 50 kW; as such, this maximum rated capacity would be retained under the proposed project. See the Preface of this Final EIR for details about why the existing provisions for small-scale wind energy systems would remain in place under the proposed project.

C2-36 The text of the proposed Zoning Code amendments has been revised in response to this comment. Aviation review would now include a request for consideration of uses such as utility-scale solar and wind energy facilities that may affect aviation fire fighting operations (see Appendix A). Per CEQA Guidelines Section 15088.5, this revision to the proposed Zoning Code amendments does not constitute a significant new change resulting in a need to recirculate the EIR.

C2-37 This comment consists of information about why soil binders would not be effective for controlling dust at renewable energy project sites in the Antelope Valley and provides several reasons for this. This information will be included in the Final EIR for review and consideration by decision makers. This comment also describes how soil binders may affect the quality of drinking water in the Antelope Valley.

As discussed in Section 4.3.2, the Antelope Valley Air Quality Management District's (AVAQMD's) Rule 403, Fugitive Dust, requires fugitive dust sources to implement best available control measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. Similar to the provisions of the proposed Zoning Code amendments, the AVAQMD recommends non-toxic dust suppressants as one of several recommended control measures for unpaved roads (AVAQMD Rule 403(c)(12)(a)). As such, the proposed project would not introduce a new dust control measure that is not already currently allowed and recommended for use within the County. It is also noted that under the proposed Zoning Code, use of soil binders would not be a requirement. The condition of approval that includes soil binders also allows for the use of "application of a similarly effective material to control dust such as use of gravel."

Section 4.9 of the Draft EIR addresses the water quality impacts of utility-scale ground-mounted renewable energy projects, temporary MET towers, and small-scale ground-mounted wind energy systems (the projects to which this condition of approval would apply) at the programmatic level. While numerous indirect effects of these projects are discussed, including impacts to water supply, the indirect effects of non-toxic soil binders and chemical stabilizers are not specifically included, since they are currently approved for use and are regulated by the Regional Water Quality Control Board, the California Air Resources Board, and the US Environmental Protection Agency.

C2-38 This comment consists of a recommended revision to the proposed Zoning Code amendments. This recommended revision does not address the environmental

analysis in the Draft EIR but will be included in the Final EIR for review and consideration by decision makers.

Air quality issues related to fugitive dust are addressed in Section 4.3 of the Draft EIR and in Response C2-37, and erosion is addressed in Section 4.6 of the Draft EIR. As discussed, AVAQMD Rule 403 regulates activities in the Antelope Valley that have the potential to generate fugitive dust, such as construction of utility-scale renewable energy projects. The proposed Zoning Code amendments contain standards and conditions of approval pertaining to dust control on non-access road areas (see Appendix A) and mitigation measures are provided in the EIR to ensure that air quality impacts are adequately evaluated and that appropriate dust suppression measures are applied to future utility-scale ground-mounted renewable energy projects (see MM AQ-1 and MM AQ-2). As stated in MM AQ-2, pursuant to a County Board Motion of May 14, 2013, Agenda Item No. 79-B, project-specific mitigation measures and/or other project-related conditions of approval for all discretionary renewable energy projects shall include the following measures related to fugitive dust control during both construction and operation:

- Continue to require a fugitive dust control plan for review and approval by the AVAQMD.
- Require a dust plume response plan including weather stations and monitors with wind speed, wind direction, temperature, and humidity sensors.
- Establish full or partial perimeter vegetation for both visual screening and limiting the off-site movement of dust.
- Require reestablishment of vegetative ground cover to the greatest extent feasible throughout the array areas for the life of the subject permit.
- Continue to require decommissioning plans to include restoration of disturbed areas with native vegetation at the end of the life of the project.
- Require additional mitigation monitoring and inspections during the first 2 years to ensure compliance with dust mitigation measures and other conditions of project approval.
- When appropriate, require a dedicated on-site compliance monitor during construction to independently monitor and report project compliance.
- When appropriate, require installation of mechanical dust-monitoring devices at each project site to identify locations on site that require dust control treatment. The dust sensors will also clarify whether the project is a dust source during a wind event.

- Require use of green-screen fencing cover during construction and use of tarps over dirt in trucks to limit off-site movement of dust and limit visual impacts during construction.

Additional dust control measures may be applied to future projects on a site-specific, project-by-project basis, depending on impacts identified during future CEQA review.

C2-39 This comment consists of a recommended revision to the proposed Zoning Code amendments. This recommended revision does not address the environmental analysis in the Draft EIR but will be included in the Final EIR for review and consideration by decision makers. It should also be noted that projects would need to comply with EPA regulations where applicable regardless of whether or not these regulations are specifically called out in the proposed Zoning Code amendments.

C2-40 This comment raises a question about a condition of approval in the proposed Zoning Code amendments and also suggests the addition of the following provision: "suitable methods of dust control shall not be toxic or polluting, and shall not cause further diminishment of air and surface water quality after becoming airborne, or waterborne." Suitable methods of dust control beyond those required and/or listed in the proposed Zoning Code amendments and identified in MM AQ-1 and MM AQ-2 would be evaluated on a project-by-project basis for utility-scale ground-mounted renewable energy projects. See responses C2-37 and C2-38 for further discussion on dust control measures. Furthermore, it is noted that the condition of approval that is quoted in this comment has been revised subsequent to the release of the Draft EIR (see Appendix A). This condition of approval now requires that use of other fugitive dust measures may be implemented if determined by applicable agencies to be suitable methods to adequately control dust in a safe manner. This provision would ensure that other methods of dust control that are implemented would not cause adverse health and safety effects.

C2-41 This comment pertains to concerns about Valley Fever and how future renewable energy projects would contribute to the increase in cases of Valley Fever in the Antelope Valley. This concern does not address the environmental analysis in the Draft EIR but will be included in the Final EIR for review and consideration by decision makers.

Section 4.3 and Section 4.6 of the Draft EIR discuss of the potential for future utility-scale ground-mounted renewable energy projects developed pursuant to the proposed Zoning Code amendments to expose people to Valley Fever and to create fugitive

dust. As stated in the Draft EIR, the California Department of Public Health and California Department of Industrial Relations have measures to implement at worksites to reduce worker exposure to Valley Fever.

The proposed Zoning Code amendments contain standards and conditions of approval pertaining to dust control (see Appendix A) and mitigation measures are provided in the EIR to ensure that air quality impacts are adequately evaluated and that appropriate dust suppression measures are applied to future utility-scale ground-mounted renewable energy projects (see MM AQ-1 and MM AQ-2). Also see response C2-38 for further discussion on dust control measures.

C2-42 This comment consists of a recommended provision for the proposed Zoning Code amendments. This recommendation does not pertain to the environmental analysis in the Draft EIR but will be included in the Final EIR for review and consideration by decision makers. Impacts of renewable energy projects including the associated infrastructure related to visual resources are addressed in Section 4.1.4 of the Draft EIR. Projects typically requiring generation tie lines (utility-scale ground-mounted) would be subject to further discretionary review, and potential impacts resulting from future generation tie lines would be addressed on a project-by-project basis. Undergrounding of generation-tie lines could be imposed as a condition of the project or as mitigation for the project.

C2-43 This comment consists of a recommended revision to the proposed Zoning Code amendments. This recommended revision does not address the environmental analysis in the Draft EIR but will be included in the Final EIR for review and consideration by decision makers. Additionally, the condition of approval that is quoted in this comment has been revised in the text of the proposed Zoning Code amendments (see Appendix A). The proposed Zoning Code amendments provide baseline guidelines for renewable energy projects and are not intended to fully mitigate all potentially significant effects of renewable energy projects that have the potential to occur in the future.

The aesthetic effects of utility-scale ground-mounted solar energy facilities developed pursuant to the proposed Zoning Code amendments are addressed at the programmatic level in Section 4.1.4 of the Draft EIR. The Draft EIR analysis concluded that these facilities would result in a potentially significant and unavoidable impact to scenic vistas and state scenic highways (see Impacts AES-3 and AES-8). All future utility-scale ground-mounted solar energy projects would undergo further CEQA review on a project-by-project basis. Site-specific impacts would be evaluated and mitigation measures would be identified, as necessary, for each project.

C2-44 This comment consists of a suggested Zoning Code provision and does not pertain to the adequacy of the environmental analysis in the Draft EIR. This suggestion will be included in the Final EIR for review and consideration by the decision makers.

The effects of future renewable energy projects on water quality are addressed in Section 4.9 of the Draft EIR.

C2-45 This comment consists of a recommended revision to the proposed Zoning Code amendments. This recommended revision does not address the environmental analysis in the Draft EIR but will be included in the Final EIR for review and consideration by decision makers.

The proposed Zoning Code amendments include measures in addition to the provision quoted in this comment that address water supply. The conditions of approval for utility-scale ground-mounted facilities would mandate that such facilities use the minimum amount of water required during construction and operation. This minimum amount of water would be established by the Hearing Officer. Additionally, permittees for such projects would be required to maintain a daily log that includes the number of gallons and acre feet of water used on the site. The permitee would be required to complete the record of monthly water usage by source within five working days following the conclusion of each month. This log would be required to be furnished to Regional Planning upon demand.

C2-46 The proposed Zoning Code amendments have been revised subsequent to the release of the Draft EIR. The existing noise requirements for small-scale wind energy systems would continue to apply to such systems and would also be applied to utility-scale structure-mounted wind energy facilities under the proposed project. A separate condition of approval for utility-scale ground-mounted wind energy facilities related to noise is now provided and states the following: "Noise from a utility-scale wind energy system shall not exceed 60 dBA Leq (equivalent sound level), as measured at the closest existing neighboring inhabited dwelling at the time of approval, or closest property line, whichever is closer." Per CEQA Guidelines Section 15088.5, this revision to the proposed Zoning Code amendments does not constitute a significant new change resulting in a need to recirculate the EIR.

It is noted that Part 15 of the Zoning Code works in conjunction with the County's Noise Control Ordinance (see Chapter 12.08 of the County Code). Section 4.12 of the EIR has been revised to clarify that projects must comply with the thresholds established in the Noise Control Ordinance. For example, for wind energy projects located on a residential property, noise would be limited to 45 dBA during the night,

due to required compliance with the Noise Control Ordinance. Conversely, where the noise threshold established in the Noise Control Ordinance is less stringent than that established in Part 15 of the Zoning Code, the noise threshold established in Part 15 would apply. The revisions that were made to the EIR to clarify this do not constitute a significant new change resulting in a need to recirculate the EIR, per CEQA Guidelines Section 15088.5.

C2-47 This comment expresses concerns about the 60 dBA noise threshold in rural areas. As currently stated in the County Code, noise from a small-scale wind energy system shall not exceed 60 dBA SEL (single event noise level), as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. Therefore, the 60 dBA SEL noise threshold has been and still will be the noise threshold that is applied to wind turbines. However, in response to this comment, the proposed Zoning Code amendments have been changed for utility-scale ground-mounted wind energy facilities. The noise level would now be measured from the closest existing neighboring inhabited dwelling at the time of approval, or the closest property line, whichever is closer. See Response C2-46 above for information about applicability of the County's Noise Control Ordinance.

C2-48 This comment expresses concerns about the 60 dBA noise limit that would be established by the proposed Zoning Code amendments. It is noted that the current regulations for small-scale wind energy systems in Part 15 state that such a system "shall not exceed 60 dBA SEL (single event noise level), as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms." Additionally, with the change that is described above in Response C2-47, the proposed Zoning Code amendments would establish more stringent noise requirements for utility-scale ground-mounted wind energy facilities.

The impacts of the noise that would be produced by future wind turbines developed pursuant to the proposed Zoning Code were evaluated in Section 4.12 of the Draft EIR. The exterior noise thresholds established in the County Noise Control Ordinance indicate a threshold of 45 dBA during the night and 50 dBA during the day for residential uses and a threshold of 55 dBA at night and 65 dBA during the day for commercial uses. Projects would be required to conform to these requirements (see Response C2-46). Additionally, mitigation measures are provided in the EIR to ensure that noise impacts are adequately evaluated and that appropriate measures are applied to future wind energy projects as required (see MM NOI-1, MM NOI-2, and MM NOI-3).

C2-49 In response to this comment, the proposed Zoning Code amendments have been changed. The 60 dBA single event noise level maximum noise level will be changed to 60 dBA L_{eq} (equivalent sound level) for utility-scale ground-mounted wind energy facilities. This revision does not constitute a significant new change resulting in a need to recirculate the EIR. As described in the Preface to the Final EIR, the existing requirements that are currently in place for small-scale wind energy systems would remain with the addition of bird and bat protection provisions. Projects would also be required to conform to the requirements of the County Noise Control Ordinance (see Response C2-46), and mitigation has been identified in this EIR ensure that noise impacts are adequately evaluated and that appropriate measures are applied to future wind energy projects as required (see MM NOI-1, MM NOI-2, and MM NOI-3).

C2-50 For any future projects that are not in compliance with the proposed Zoning Code amendments, the Director of Regional Planning or designee is authorized to issue a Final Zoning Enforcement Order. Inspections are conducted based on complaints received. In the event of a complaint, a zoning enforcement officer inspects the property and requests information to confirm compliance, as necessary.

Regarding the potential for wind turbines to produce increased noise over time, the Draft EIR includes a discussion of the potential for wind turbines to produce increased noise levels as a result of gearbox malfunction. This discussion has been revised to also account for the potential of wind turbines to produce additional sound over time (see Section 4.12.4 of the Final EIR). However, this revision does not alter the significance determinations given in Section 4.12 of the EIR. Per CEQA Guidelines Section 15088.5, this correction does not constitute a significant new change resulting in a need to recirculate the EIR.

Projects would be required to conform to the requirements of the County Noise Control Ordinance (see Response C2-46), and mitigation has been identified in this EIR ensure that noise impacts are adequately evaluated and that appropriate measures are applied to future wind energy projects as required (see MM NOI-1, MM NOI-2, and MM NOI-3).

C2-51 This comment requests a multilevel chart that shows allowable noise generation by zone and location. This request for a multilevel noise generation chart will be included in the Final EIR for review and consideration by decision makers. However, the County Noise Control Ordinance provides noise requirements based on land use type (i.e., residential, commercial, etc.). As described in Response C2-46, future projects would be subject to the County Noise Control Ordinance.

C2-52 This comment consists of a recommended revision to the proposed Zoning Code amendments. This recommended revision does not address the environmental analysis in the Draft EIR but will be included in the Final EIR for review and consideration by decision makers. Additionally, the language of the condition of approval that is quoted in this comment has been revised in the text of the proposed Zoning Code amendments (see Appendix A). The proposed Zoning Code amendments provide baseline guidelines for renewable energy projects and are not intended to fully mitigate all potentially significant effects of renewable energy projects that have the potential to occur in the future.

C2-53 This comment consists of a suggested Zoning Code provision and does not pertain to the adequacy of the environmental analysis in the Draft EIR. This suggestion will be included in the Final EIR for review and consideration by the decision makers.

C2-54 This comment consists of a recommended revision to the Zoning Code pertaining to the noticing requirements for Minor CUPs, specifically in the Antelope Valley. This recommendation does not pertain to the adequacy of the environmental analysis in the Draft EIR. This suggestion will be included in the Final EIR for review and consideration by the decision makers. It is noted that projects requiring Minor CUPs are subject to CEQA. In addition to the noticing requirements for Minor CUPs, CEQA sets forth a variety of noticing requirements depending on the level of CEQA review. Noticing requirements under CEQA may include newspaper postings, postings at the County Clerk, and postings with the State Clearinghouse. Where an EIR is required by CEQA, noticing occurs throughout the CEQA process—prior to preparation of the Draft EIR, upon completion of the Draft EIR, and upon completion of the Final EIR.

C2-55 This comment consists of a recommended revision to the Zoning Code pertaining to Minor CUP requirements. This comment consists of a suggested Zoning Code provision and does not pertain to the adequacy of the environmental analysis in the Draft EIR. This suggestion will be included in the Final EIR for review and consideration by the decision makers.

It is noted that upon adoption of the proposed Zoning Code amendments, Minor CUPs would require a public hearing. The effects of future renewable energy projects developed pursuant to the proposed Zoning Code amendments on scenic resources are addressed in Section 4.1 of the Draft EIR.

C2-56 See Response C2-34 and S1-15 for information regarding the allowable size for small-scale ground-mounted solar energy systems. This comment consists of a

recommended revision to the Zoning Code and does not pertain to the adequacy of the environmental analysis in the Draft EIR. This suggestion will be included in the Final EIR for review and consideration by the decision makers.

It is noted that the requirement for small-scale ground-mounted solar energy systems to obtain a Minor CUP in the O-S and W zones is an avoidance and minimization measure incorporated into the proposed Zoning Code amendments to address potential effects of such systems on the biological resources of the County, many of which are concentrated in those zones (see Response S1-12 for more information). The Minor CUP process would require discretionary approval, further project-level CEQA review, and a public hearing. However, the EIR analyzed such systems at the project-level, as they would not require further discretionary approval or CEQA review in most zones. The requirement for further discretionary review decreased the significance of numerous potential environmental effects, although not always to a less than significant level.

C2-57 See response C2-35 for information regarding the size of small-scale wind energy systems. This comment consists of a recommended revision to the Zoning Code and does not pertain to the adequacy of the environmental analysis in the Draft EIR. This suggestion will be included in the Final EIR for review and consideration by the decision makers.

C2-58 This comment consists of a recommended revision to the Zoning Code and does not pertain to the adequacy of the environmental analysis in the Draft EIR. This suggestion will be included in the Final EIR for review and consideration by the decision makers. It is noted, however, that utility-scale structure-mounted wind energy facilities would not necessarily be large in size.

C2-59 This comment consists of a recommended revision to the Zoning Code and does not pertain to the adequacy of the environmental analysis in the Draft EIR. Furthermore, this comment requests a change to an existing, adopted portion of the Zoning Code and therefore does not pertain to the project that is analyzed in this EIR. The existing Zoning Code allows Minor CUPs to be appealed to the Regional Planning Commission. The proposed Zoning Code amendments do not include any changes to this provision. However, this suggestion will be included in the Final EIR for review and consideration by the decision makers.

C2-60 This comment concludes the letter. As such, no response pertaining to the proposed project or to the Draft EIR is required. It is noted that the different levels of permitting requirements for renewable energy projects (see Table 10-2) in the

proposed Zoning Code amendments are intended to incentivize small-scale and structure-mounted renewable energy projects. Utility-scale ground-mounted facilities and wind energy projects would require discretionary approval and CEQA review on a project-by-project basis.

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Comment Letter C3

Association of Rural Town Councils
C/O Three Points-Liebre Mountain Town Council
P.O. Box 76
Lake Hughes, CA 93532

16 March 2015

SENT VIA EMAIL

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Dear Ms. Tae and Mr. Lee,

Subject: Renewable Energy Ordinance, Draft 3

On behalf of the Association of Rural Town Councils (ARTC), I appreciate the opportunity to comment on the Renewable Energy Ordinance, Draft 3 (REO3). This ordinance will have far-reaching effects on rural communities across the county; many of them have already experienced ill-effects of utility-scale renewable energy development covering thousands of acres in the Antelope Valley. Several aspects of the ordinance including, but not limited to, the time-frame to comment, water issues, noise, dust and Valley Fever concerns, nighttime lighting, Minor Conditional Use Permits (MCUP), Conditional Use Permits (CUP), small-scale and utility-scale renewable energy uses, protection of ridgelines, and biological considerations of development necessitate response, and the councils represented here request changes to the REO3 that would not only clarify existing language, but offer protections to not only town council areas, but the county at large. C3-1

While the Renewable Energy Ordinance Team visited town councils and ARTC meetings during the fall and early winter of 2014, only a working draft document was available. The REO3 was not available for viewing until February 20th, and the comment period is actually cut short by "ideally" sending comments prior to the submission of the planning package that goes to planning commissioners. For some councils, approval of comments or letters is not possible because of how meeting dates fall in relation to the comment deadline, which is not listed on the released draft REO3. Two or three weeks is not enough time to thoroughly review this document, and its importance to rural communities is without question. We find it reasonable to request additional time for our concerns to be heard, and our suggestions implemented. C3-2

DEFINITIONS

Section 5, 22.08.210, U, page 4/79. Utility-Scale Solar Renewable Energy facility, ground-mounted. "Ground-mounted utility-scale solar renewable energy facility" means a facility affixed to the ground where renewable solar energy resources are used to generate direct electrical or thermal energy primarily for off-site use. This definition includes all on-site and off-site equipment and accessory structures related to the facility, including but not limited to solar collector arrays, wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures." ***The definition, here, does not adequately address the exclusion of parabolic "boiler" type solar arrays or power "concentrating" towers, although the previous definition of "Solar Arrays" (Section 4, 22.08.190, S) "do not include concentrated solar thermal devices, which use lenses or mirrors to focus or reflect a large area of sunlight onto a small area." Part U's "including, but not limited to solar arrays" does not go on to define what other types of solar equipment are allowed. This opens the statement to include, essentially, everything. Please provide more specific language that excludes parabolic trough boiler and power tower type renewable energy systems from the ordinance. They also use tremendous amounts of water—precious in our high desert areas. Not only that, but well documented massive killing of birds at the Ivanpah plants at Primm, Nevada, and unprecedented glare beyond that of panels and FAA lighting on wind towers would render visual distraction to scenic areas and render useless the Rural Outdoor Lighting Ordinance, further imposing destruction of dark night sky views, and daytime views, too. Moreover, Part U also states structure mounted utility-scale solar energy facility that is "used to generate direct electrical or thermal energy primarily for off-site use, also contains more "including, but not limited to" language. There is no definition of thermal energy for off-site use. This should be more specifically described to assure solar concentrating "thermal" energy is not allowed.*** C3-3

Section 6, 22.08.230, W, page 6/79. "Wind tower" means the vertical component, including blades if any, of a small-scale wind energy system, a utility-scale energy facility using wind resources, or a temporary meteorological tower that elevates the wind turbine generator and attached blades above the ground." ***This statement is confusing. Why not describe a meteorological tower as a "met tower" and a wind turbine with blades, meant to generate electricity, as a wind tower?*** C3-4

LAND USE ZONES

As the document lists "Permitted Uses," "Accessory Uses," and "Uses Subject to Permits," through particular land use zones, for each zone, all utility-scale solar and wind energy facilities, structure mounted, are a permitted use (Sections 7-48, 22.20.080 through 22.25.320, pages 6-31). ***When we reach Zone C-R, Commercial Recreation, the ordinance allows ground mounted utility-scale solar and wind energy that is incompatible with recreational areas and should not be permitted (page 29/79).*** C3-5

In Zone M-4, Section 48, 22.32.190, a CUP is needed for "use listed is located within 300 feet of a public school, public park, or a residential or A-1 Zone." The three hundred foot distance should be extended to two miles, since children, especially, are sensitive receptors, and according to Arline Bronzaft, B.A., M.A., Ph.D., who spoke at the Oct. 30 [2010] International Symposium on Adverse Health Effects from Wind Turbines, many other studies have demonstrated that intrusive noises, such as passing traffic or overhead aircraft, adversely affect children's cardiovascular systems, C3-6

memory, language development and ability to learn. The abstract of her article in Bulletin of Science Technology Society August 2011 vol. 31 no. 4 291-295 states, "Furthermore, based on our knowledge of the harmful effects of noise on children's health and the growing body of evidence to suggest the potential harmful effects of industrial wind turbine noise, it is strongly urged that further studies be conducted on the impacts of industrial wind turbines on their health, as well as the health of their parents, before forging ahead in siting industrial wind turbines."

C3-6 Cont.

Section 56, 22.40.430, page 35/79, A, Uses Subject to Permits, in O-S Zone, "Energy generating or storage devices, including but not limited to geothermal devices" are allowed with a CUP. ***Energy generating or storage devices are not appropriate use in open space lands that Regional Planning deems appropriate for "campgrounds, crops, grazing of animals, [and] resource management (22.40.410). The term "energy generation devices" is unclear, and if open space lands are appropriate places for them, they need to be described in detail and their purpose stated, justifying their placement.***

C3-7

COMMUNITY STANDARDS DISTRICTS

Section 57, 22.44.113, Sec. 58, 22.44.113, Sec. 59, 22.44.133 page 35/79. ***According to*** Section 22.52.1605 *of the REO3,* ***supplemental district regulations (such as Community Standards District provisions) apply to all renewable energy projects. However, in instances where the REO3 regulates matters that are also addressed by CSD provisions, the REO3 prevails, and CSD provisions are subordinated. This untenable arrangement has never been explained, and Planning Staff have never provided any reasons for including such provisions. This portion of the REO3 must be revised to ensure that CSD provisions prevail, particularly in regard to utility scale wind and solar generation projects, unless the ordinance stipulates a more stringent or protective requirement, with regard to renewable energy. The reasons are obvious. CSDs are established for, constrained to, and address, developed residential uses, and they include provisions that are intended to protect these residential uses from incompatible industrial development such as that associated with utility-scale RE generation projects. Granting industrial uses the ability to sidestep community protection provisions of any CSD "by right" and without reason or justification undermines the entire CSD structure. If a renewable energy proponent wishes to develop a project that violates a CSD provision, then they should be required to go through the variance process just like any other project proponent that wishes to avoid CSD requirements. Above all, RE developers should not be granted a perfunctory "pass" that allows them to completely ignore the very development standards that communities have fought hard for and which protects residents from incompatible development.***

C3-8

PART 15

Section 22.52.1600, Purpose, page 40/79. "This Part 15 establishes regulations and permit requirements that support and facilitate the development of small-scale solar energy systems, small scale wind energy systems, [Add: *Industrial*] utility-scale solar renewable energy facilities, [*Industrial*] utility-scale wind energy facilities, and temporary meteorological towers in a manner that protects public health, safety, and welfare, and minimizes significant safety hazards and impacts to the environment." ***The ordinance, as written, does not apply sufficient regulations that would protect rural residents against visual impacts—many of the roads in rural areas access considerable viewshed, with ridgelines not protected by CSDs, which are, then, not protected by this ordinance;***

C3-9

air quality and threat of Valley Fever are not well addressed; safety is a concern of rural residents, who, during times of wildfire, rely heavily on aircraft water and retardant drops, which are impeded by 5oo foot tall wind turbines. There are also environmental considerations pertaining to wildlife, conservation areas, and public trust lands. C3-9 Cont.

Section 22.52.1605, B, page 41/79. "Applicability of zone and supplemental district regulations. All provisions of the zone and any supplemental district in which a small-scale solar renewable energy system, small-scale wind energy system, utility-scale solar renewable energy facility, utility-scale wind energy facility, or temporary meteorological tower is located shall also apply. Where a provision of the zone or supplemental district regulates the same matter as this Part 15, whichever provision of this Part 15 is more restrictive shall apply." ***Please see above for reference to Community Standards Districts, and the last page of this letter, which details modifications that will require only a MCUP to change CSDs regarding placement of wind towers.*** C3-10

Part E. 1., 2., Subsequent Application, page 42/79. "1. Any subsequent application modification(s) that would increase the physical size, height, or footprint of a previously approved small-scale solar renewable energy system, small-scale wind energy system, utility-scale solar renewable energy facility, utility-scale wind energy facility, or temporary meteorological tower; and 2. Any subsequent application modification(s) that would change the type of equipment used by the previously approved small-scale solar renewable energy system, small-scale wind energy system, utility-scale solar renewable energy facility, utility-scale wind energy facility, or temporary meteorological tower, except for replacement of equipment for maintenance purposes." ***Please assure us that any modifications that change a previously approved small-scale, or utility-scale renewable energy system would be required to submit a CUP or a Minor CUP, and both permitting processes fulfill a public notice process.*** C3-11

22.52.1610, Application Materials, B, 4. a., v., page 43/79. "Watercourses." "The Project Area," **[unincorporated Los Angeles County]** ***according to California Department of Fish and Wildlife (CDFW), "supports aquatic, riparian, ephemeral and wetland habitats; therefore, a jurisdictional delineation of the creeks and their associated habitats should be a requirement of the Renewable Energy Ordinance for future projects"(June 2, 2014 REO2 Letter). The application materials should include those specific types of water related areas listed above.*** C3-12

22.52.1610, B., 4. ix, page 43/79 "Transmission Lines." ***Please add Generation Tie lines. This is important for visual impacts evaluation.*** C3-13

22.52.1610, B, 4. e, page 44/79. "Conceptual dust control plan." ***Conceptual means "not concrete." The REO3 needs to hold projects to a solid, not theoretical, dust plan that will actually mitigate dust. So far, Best Management Practices, and Rule 403 of the Antelope Valley Air Quality Management District, which include soil stabilizers, have proven unsuccessful in stopping wind driven dust events. Provide amendments that actually require more stringent control without polluting or damaging the environment.*** C3-14

22.52.1610, B., 5., a., iii., page 45/79. Discussion of guy wires. ***The CDFW, in their response letter June 2, 2014 to REO2, request that no guy wires or non-strobe lighting be allowed on RE met towers and other structures, due to the fact that the wires pose a significant threat of mortality to avian*** C3-15

wildlife. "Guy wires supporting communications and meteorological towers can kill birds at high rates, including birds protected by Fish and Game Code (Kerlinger et al. 2008, Longcore et al. 2008). Both the CEC [California Energy Commission]-CDFG Guidelines (2007) and the U.S. Fish and Wildlife Service (2000) recommend using freestanding tower designs due to avian mortality impacts from guywires. The Department recommends the Lead Agency require the use of monopole structures (when feasible), or otherwise utilize other technologies that do not use guy wires." Eliminate the use of guywires in REO3, and require monopole construction of met towers and small-scale wind energy systems.

C3-15 Cont.

22.52.1615, C. 1.d., page 48/79. "Project perimeter fencing shall incorporate small animal permeable design, unless otherwise modified by the Hearing Officer." ***Please define criteria by which modification of small animal permeable fencing be changed. Require assessment by CDFW and/or USFWS, in documented consultation with the Hearing Officer.***

C3-16

22.52.1615, C. 2., page 48/79. Standards for Utility-scale Solar Energy Facilities. "Height of the solar array shall not exceed 25 feet." ***Solar arrays that reach up to 25 feet in height would be intrusive visually to flat or hilly landscapes and rural residential areas. Restrict height to 12 feet maximum.***

C3-17

22.52.1615, C. 3.a., b., page 48/79. Lighting. "a. Motion sensors for entry-lighting to the on-site equipment structures and buildings; and b. Light-sensor or motion-sensor lighting for the main facility access gate, operations and maintenance building doorways, and any parking areas of facilities with operation and maintenance buildings." ***Motion-sensor lighting is obtrusive in dark areas, since it is constantly tripped by insects, animals, bats, birds, and blowing trash, so lights go off and on all night. This is not an appropriate requirement for all areas, nor does it comport with dark skies preservation. Lighting should remain off unless emergency maintenance is required, and only for the duration of the emergency activity.***

C3-18

22.52.1615, C. 6., Significant Ridgelines, Page 49/79. "The highest point of a utility scale solar renewable energy facility shall 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." ***In order to address visual impacts to ALL ridgelines, impose the setback requirement recommended by CDFW, again, in their June 2, 2014 REO2 letter: "The Department [CDFW] recommends the Lead Agency [Regional Planning] consider a requirement for setbacks for all wind energy facilities and meteorological towers from significant ridgelines and Significant Environmental Areas at a minimum of twice the height of the proposed facility to reduce the potential impacts to migratory birds and other avifauna." This would ensure compliance with all CSDs, ensure less visual impact and allow adequate clearance to reduce potential impacts to birds and avifauna. Please amend to "The highest point of a utility-scale wind energy facility shall be located a minimum of twice the height of the proposed facility, or the most restrictive CSD which ever is greater."***

C3-19

22.52.1625., A. 1., Standards for Temporary Meteorological Towers. Aviation Safety. All safety lights required by the Federal Aviation Administration that meets FAA standards shall be required for any wind tower, shall comply with applicable Federal Aviation Administration (FAA) standards. Any aviation-related agency or the Department may impose additional requirements as deemed necessary." ***Sections of the REO3 require the addition of "FAA-required safety lights" on all utility scale wind***

C3-20

energy facilities. This poses a problem in that utility companies frequently state that FAA lights are required when, in fact, they are not. Take for example, the transmission lines recently constructed through Acton and the Angeles National Forest. SCE informed the California Public Utilities Commission (CPUC) that FAA required lights on the new towers, so the CPUC authorized them. However, the US Forest Service clarified that FAA lights were not actually required on such transmission tower structures, so SCE did not install lights on any of the 60+ miles of towers located in several utility corridors along ridgelines and hilltops throughout the Angeles National Forest. In fact, these "FAA-required" lights were only installed in residential areas located in valleys (specifically where aircraft do not fly). The point is, the County must take every possible action to avoid the installation of FAA lights and diligently confirm any applicant claim that "FAA-required" lights are indeed required. The County must also seek alternatives to such lights, and ensure that any lights which are installed shine light only in an upward direction and are not visible from any area that is at or below the elevation of the lights. Otherwise, the entire point of the County's recently adopted Rural Outdoor Lighting Ordinance is completely lost. C3-20 Cont.

22.52.1625, C. 1., page 50/79. Standards for Temporary Meteorological Towers. Aviation Safety. ***"Wind towers" usage here is confusing when the title of the section refers to Temporary Met Towers. The language is used interchangeably and misleads the reader. There should be a separate section for Met Towers and one for Wind Towers. Table 22.52.1625 A--Again, no guy wires, please. Make all met towers free standing, according to recommendation by the CDFW, due to high avian mortality rates at guywired towers. Also, alternating bands of aviation orange and white paint, with visibility marker spheres may be necessary for aviation safety, but a time period for their permitted operation should be instituted, of not more than two years, otherwise the removal of the "temporary" met towers could take years, or never happen at all. The orange and white painted towers are obtrusive to scenic areas and rural communities, and this obtrusion should be limited with a proscribed time limit for their operation, and should follow decommissioning requirements that include complete removal of foundation and tower apparatus, and restoration of the site.*** C3-21 C3-22 C3-23

Table 22.52.1625, page 51/79. Setback Requirements for Temporary Meteorological Towers. ***The table seems to mix wind tower setbacks and met tower setbacks, even though, as previously mentioned, the section applies to "Temporary Meteorological Towers."*** C3-24

22.52.1630, A., 2., page 52/79. Standards for Small-scale Wind Energy Systems. Significant Ridgelines. ***See above comment at 22.52.1615, C. 6., which requests twice the height of the wind tower below the ridgeline, or the most restrictive CSD which ever is greater.*** C3-25

22.52.1630, C.2.a., page 53/79. Small-scale Wind Energy Systems. Impacts to birds and bats. Design. "Use of trellis towers prohibited." ***Trellis towers are not the only threat to birds and bats. This would prevent perching and nest building dangerously near spinning blades, but blades do their own damage atop monopoles. Barotrauma (injury by rapid air pressure reduction) is the cause of death in a high proportion of bats found at wind energy facilities; 90% of bat fatalities involved internal hemorrhaging consistent with barotrauma. Institute a data base that identifies locations of small-scale wind energy systems, that includes review by independent biologists of the effects of numbers of small-scale turbines. Cumulatively, several in one area could lead to adverse effects on birds, bats, avifauna, and sensitive habitats in Significant Ecological Areas, near parks, public and private conservation lands, open-space areas, and rural communities. There needs to be criteria for limiting small-scale wind energy systems when their*** C3-26 C3-27

cumulative effects exert measurable harm to wildlife, cause noise-related effects, shadow flicker, and impinge on viewshed. How would CEQA be applied to cumulative impacts of numbers of individually placed small-scale wind energy systems? C3-27 Cont.

22.52.1630, C, 2, c., ii., page 54/79. "No part of the small-scale wind energy system shall be closer than one mile from a known golden eagle nest site." ***How is adherence to the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act applied to small-scale wind individually and cumulatively? How does the County propose to comply with those acts through this REO3? According to the National Wind Coordinating Collaborative, Wind Turbine Interactions with Birds, Bats, and their Habitats: A Summary of Research Results and Priority Questions, Spring 2010, "Siting turbines away from where raptors concentrate may reduce raptor collision rates at wind facilities. Raptors are known to concentrate along ridge tops, upwind sides of slopes, and canyons (See CDFW recommendations, above, June 2014 REO2 letter) to take advantage of wind currents that are favorable for hunting and traveling, as well as for migratory flights" (Bednarz et al. 1990; Curry and Kerlinger 1998; Barrios and Rodriguez 2004; Hoover and Morrison 2005; Manville 2009)). Eagles' territory typically comprises one to six square miles. It would be reasonable to extend the range of nest site distance to small-scale wind turbines to five miles in all directions.*** C3-28

22.52.1635, C., 5. page 57/79. Standards for Utility-Scale Wind Energy (USWE). Impacts to Birds and Bats. ***The California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development, published by the California Energy Commission (CEC) has been removed from the ordinance. If the County wishes to take a proactive approach to protection of birds and bats that has the CEC's approval, the guidelines would be a reasonable addition to requirement for a CUP. Please reinstate this requirement. Also, see above comment for small-scale wind energy systems.*** C3-29

22.52.1635, C., 5, c.,i., (A)(B)(C), page 57/79. Setbacks. "No part of a ground-mounted utility-scale wind energy facility shall be closer than 0.25 miles from the following: (A) Adopted Significant Ecological Areas; (B) Recorded open space easements and publicly designated preserve areas; and , (C) Riparian areas and wetlands." ***One quarter of a mile 1,320 feet is not adequate setback for USWE. As noted previously, riparian areas attract birds; "significant" wildlife exists in SEAs. Noise, shadow flicker, ice throw, wind turbine collapse, and fire danger posed by turbines would indicate a minimum of one mile from sensitive areas. Also, there is no updated SEA map that shows final boundaries that would define setbacks.*** C3-30

22.52.1635, C., 7, Table 22.52.1635-A, Location. Setbacks listed for onsite or offsite residence or habitable structure, above ground transmission line, public access easement or public trail, or property line, scenic drives and routes, and railways indicate 2X the tallest wind tower. Buildings other than a residential structure, 1X the tallest wind tower height. ***United States wind turbine project setbacks can be as much as 2 miles from residences, and projects are also measured for the distance of sound travel, and are required to provide a sound study as proof of adequate distance from towns and residences, with a reasonable expectation of a 30dcb in rural areas. This also protects residents, to a degree, from experiencing low-frequency tones, gear noise, and shadow flicker. Scenic viewshed from public trails, conservation easements with viewpoints, need to be considered. If preservation of safety, public health, and viewshed related to conservation and open-space lands is a priority for RP,*** C3-31

extension of setbacks to one mile and two miles to replace 1X and 2X tower heights in the Table. Note: There is no discussion of reducing impacts to viewshed with regard to Utility-Scale Wind Energy projects, and for good reason. They cannot be disguised with screens or landscaping. That is why larger setbacks <u>or completed restriction (preferred)</u> are so important to implement.

C3-31 Cont.

C3-32

22.52.1640, A., 1., 2., page 59/79. <u>Modifications</u>. "1. Due to topographic or physical features of the site, strict compliance with all of the required standards would substantially and unreasonably interfere with the establishment of the proposed development on the subject property; and 2. The requested modifications would not be contrary to the purpose of this Part 15." ***The REO3 allows energy developers to sidestep the few protections that do exist by simply requesting a "modification" to the requirements based on a claim that they "unreasonably interfere" with development. The only basis for denying such requests is if the County finds them to be "contrary to the purpose" of the REO. However, the County will never be able to make such a finding because the entire purpose of the Ordinance is to "support and facilitate" the development of RE projects (See Section 22.52.1600). The circular structure of these ordinance provisions ensures that large-scale energy projects will proceed quickly, with little or no community input, and without regard for community impacts. This is completely unacceptable, and the REO must be revised to strengthen (rather than decimate) protections for established rural residential communities. <u>Please eliminate this Section A, items 1 and 2.</u>***

C3-33

22.52.1640, C., page 60/79. "<u>A small-scale solar energy system that exceeds the maximum lot coverage</u> required under subsection B.2 of Section 22.56.1615, requires approval of a Minor Conditional Use Permit pursuant to Part 1 of Chapter 22.56 and is subject to the development standards specified in subsections A and B.1 of Section 22.52.1615 and A.2 and C.5 of Section 22.52.1620 and conditions specified in subsections A.2.d and A.2.g of Section 22.52.1655." ***Section 22.52.1615 of the REO3 allows "Small-Scale Solar Energy Systems" to occupy up to 2.5 acres of land (on a five acre parcel), and 22.52.1640 B even provides a "Minor Conditional use Permit" pathway to increase this limit even further. However, the amount of energy generated by 2.5 acres of solar arrays is so substantial that it could never be deemed "primarily for on-site use" on rural residential and agricultural lots, as evidenced by data recently provided by the National Renewable Energy Laboratory (NREL). According to NREL's data, 2.5 acres of "tilt" photovoltaic solar panels will provide more than enough energy to support 55 homes, which greatly exceeds the on-site energy "need" of any residential parcel. Obviously, a 2.5 acre "solar array" that is constructed on rural residential/agricultural land is clearly not intended to "generate direct electrical or thermal energy primarily for on-site use" because no rural residential use is equivalent to 55 homes. In other words, the intent of placing 2.5 acres of PV panels on any land other than industrially or commercially zoned property is clearly to generate energy for off-site use, and therefore solar generation plants of this size intrinsically fail to meet the definition of "Small-Scale Solar Energy System" found in 22.08.190 of the Ordinance. For this reason, the size limit for "small-scale solar energy systems" installed on parcels zoned for rural residential/agricultural use must be much less than 2.5 acres. The ARTC recommends that the size limit be constrained to less than one quarter of an acre, which is still sufficient to supply more than 5 homes according to NREL.***

C3-34

Also, the California Energy Commission describes utility-scale turbines as 50-500 kilowatts or more, and distributed use, or small-scale systems as 1-25 kilowatts. From the CEC Overview of Wind Energy: "The components of a utility-scale "wind farm" include wind turbines, an underground

C3-35

power transmission system, control and maintenance facilities, and a substation that connects the farm with the utility power grid. Utility-scale wind turbines are classified by size as follows: small (less than 50 kilowatts [kW]); intermediate (50 to 500 kW); and large (above 500 kW). . . . Another application of wind is in distributed use systems, which provide on-site power in either stand-alone or grid-connected configurations. Most such systems range in size from one to 25 kW. Distributed wind systems are applicable to industry, water districts, rural residences, agricultural use, and a wide variety of isolated power uses located in good wind resource areas" (http://www.energy.ca.gov/wind/overview.html). A 50kW small-scale wind system would power between 8 and 23 homes. This is not "primarily" onsite use. This may work for multiple family homes, or unlimited residence zones, but The ordinances also allows 2 turbines on a gross acre of land. According to definition of small-scale wind, a limit of 16 -32 kW wind systems would be more than adequate for personal use.

C3-35 Cont.

22.52.1645, A., page 61/79. Uses Subject to Permits-Aviation Review. ***Please add an item 5. "Evaluate aviation fire fighting capabilities in the vicinity of rural areas and local airports surrounded by wind towers and utility-scale solar energy projects."***

C3-36

Part 15, DUST CONTROL, AIR QUALITY, HEALTH EFFECTS

22.52.1655, A., 2., a., page 63/79. Uses Subject to Permits, Access roads. "Dirt access roads shall be treated with a suitable non-toxic long-term soil binder, or application of similarly effective material to control dust such as use of gravel." ***The REO3 authorizes the use of "soil binders" to control dust on access roads and other disturbed areas. However, the Commission is advised that soil binders in this application are not appropriate for the following reasons (cited in the California Stormwater BMP Handbook): 1) Soil Binders do not hold up to pedestrian or vehicular traffic, therefore authorizing their use on access roads will provide ineffective (and non-existent) dust control. 2) Soil binders often do not penetrate compacted soils, and are therefore ineffective. 3) The performance of soil binders are soil-texture specific; some do not work on sandy soils, and others do not work on silty soils. Both soil types can be collocated within the Antelope Valley, therefore it is unlikely that an effective soil binder will be found. 4) Soil binders do not perform well in low humidity areas. The Antelope Valley is located in the high desert and typically has very low relative humidity, therefore authorizing the use of soil binders in the Antelope Valley will provide ineffective dust control. 5) The use of soil binders may have water quality impacts due to their chemical makeup. Throughout the Antelope Valley, residents rely on wells for drinking water, therefore authorizing the use of soil binders in the Antelope Valley without first documenting the potential impacts of such materials on drinking water quality is wholly inappropriate.***

C3-37

There are also problems with the dust control provisions that address non-access road areas and other portions of RE projects (see for example page 64 of 75). The REO3 appears to rely on existing vegetation to control dust levels, in that it authorizes mowing of such vegetation, but prohibits root system removal. This presumes that existing vegetation which thrives on the full sunlight of the Antelope Valley and perhaps relies on dew condensation for survival will continue to survive when covered over entirely by solar panels which eliminate both light and condensation. Worse yet, the Ordinance contains no "back up" dust control provisions detailed that must be implemented if (or rather when) the native vegetation dies out. This serious deficiency must be addressed before any renewable energy ordinance is adopted.

C3-38

22.52.1655, 2., d., page 65/79, Site Disturbance. "The measures found in this subsection shall in no way be construed as a substitute for compliance with State requirements imposed by the applicable Air Quality Management District." **Add:** ***or air (and water) quality standards set forth by the Environmental Protection Agency.*** C3-39

22.52.1655, 2., d., v. (A), Fugitive Dust. "Fugitive dust emission shall be controlled by phased earthwork, site watering, use of clean gravel not to exceed a depth of six inches where applicable, application of non-toxic soil stabilizers, limiting public access on unpaved areas, posting private roadways with reduced speeds, and/or re-vegetation. Use of other fugitive dust mitigation measures may be implemented if determined by the Department of Regional Planning and Department of Public Works to be suitable methods to adequately control dust during construction, operations, and removal and restoration activities." ***Detail other "suitable" methods of proposed alternative dust control that "may" be implemented. The residents of the Antelope Valley deserve protection in place before this ordinance is approved. Also, please add: Suitable methods of dust control shall not be toxic or polluting, and shall not cause further diminishment of air, surface water, or ground water quality after becoming airborne, or waterborne.*** C3-40

The REO3 makes no mention of Valley Fever, or its prevention. It presumes well managed dust control through the use of soil stabilizers and water during construction. Water causes the fungus to bloom, further exacerbating the problem of controlling its proliferation and stabilization during high wind events in the Antelope Valley.

In the New Yorker Magazine, "Death Dust," January 20, 2014, "County Department of Public Health Epidemiologist, "Dr. Ramon Guevara, has made it a personal mission to educate people about the emergent issue of cocci in his territory. In L.A. County, we have so many cases, and we have a potentially large problem, because the population is growing. . . The highest rate of infection is in Antelope Valley, a rapidly developing outpost of the county that adjoins the southern edge of the San Joaquin Valley. In the past decade, the number of cases there has increased five hundred and forty-five percent. . . In addition to vacant land, Antelope Valley has abundant sunshine and regular high winds, which make it a logical place to build alternative-energy infrastructure. With California pledging to get a third of its electricity from renewable sources by 2020, the region is pitching itself as a hub for the industry. There are some thirty solar projects in development. . . The construction of the solar facilities could have unintended consequences for the environment, though, releasing hazardous dust into the air. "In the afternoon, when the kids come out of school, it's always windy,"[Dr.]Lauer [Phd., Environmental Microbiology at California State University, Bakersfield] says, "When they walk home, they all get exposed."
(http://www.newyorker.com/magazine/2014/01/20/death-dust). C3-41

Additionally, Dr. Guevara's response letter to the REO2 states, "There are no standards of criteria here for what is acceptable in terms of amount and duration of resultant dust, measurements of dusts, and rules for feasibility and appropriateness of vegetation preservation, planting, and maintenance. These should be put forth with processes to involve the surrounding communities." This has not appeared in the REO3. Residents of the Antelope Valley deserve concrete, detailed dust monitoring and control plans in place and these should include air quality monitoring stations provided in the permitting process that will determine the levels of particulate matter in the air, r

eflecting the success or failure of vegetation-based dust control techniques, as well as soil binding products, to protect the population from Coccidioidomycosis. C3-41 Cont.

Diesel Emissions. ***Council members have also expressed concern regarding diesel emissions releasing harmful particulates into the air during construction and maintenance of utility-scale RE projects.*** C3-42

Moratorium. ***There have been previous requests by citizens, councils and other groups for a moratorium on utility-scale RE projects, until suitable protections and monitoring systems are in place for protection of air quality and human health.*** C3-43

Electromagnetic Frequency. ***Some council members have expressed concerns regarding the effects of eletromagnetic fields produced by utility-scale RE, and possible effects on human health. This is an area of controversy, much like the complaints of residents near wind turbines because of the low-frequency hum and vibration, shadow flicker. Setbacks suggested for wind turbines and electrical substations from residences would work toward addressing this concern.*** C3-44

22.52.1655. 2., e., page 68/79. Transmission Lines. "On-site and off-site transmission lines shall be placed underground to the satisfaction of the Department and Department of Public Works, except where above-ground crossings are otherwise required (such as over the California Aqueduct)." ***Please add: Generation Tie Lines shall be placed underground to minimize effects to the viewshed.*** C3-45

22.52.1655. 2., f., page 68/79. Visual Impact. "Any utility-scale solar renewable energy facility that is placed within the viewshed of a Scenic Drive, Scenic Highway or Scenic Route identified in the General Plan or in an applicable Area Plan or Community Plan shall be analyzed for its visual impacts, and appropriate conditions relating to siting, buffering, height, and design of the facility may be imposed to minimize significant effects on the viewshed;" ***Please add more certain language: "design of the facility will be imposed to eliminate effects on the viewshed."*** C3-46

22.52.1655. 2., g., h., iii. page 69/79. Water Quality protection. Water Use. "Measures to protect groundwater and surface water from waste discharge shall be incorporated into the project design, as appropriate, and shall meet the requirements of the Regional Water Quality Control Board. ***To guarantee projects' compliance with water quality protection, add: Water testing for waste and pollutant discharge to surface water and ground water shall be instituted, and results available for public view.*** C3-47

22.52.1655. 2., iii. "The project shall use piped recycled water if it is available from the public right-of-way within one mile from the project site at fair market value and suitable for use. If such piped recycled water does not meet the water demand, the project shall use piped potable water if it is available from the public right of-way within one mile from the project site at fair market value and suitable for use. ***The REO3 does not address the enormous quantities of water that are required to operate solar RE projects. Allowing RE developers to obtain water from any source that they find convenient without regard for the impacts that such water withdrawals may have on the water table and domestic water wells is a substantial deficiency of the REO3. This deficiency is best addressed by requiring RE projects to rely solely on the use of recycled water (obtained from the "purple" hydrants that dot the Antelope Valley). To affect this purpose and eliminate the possibility of using*** C3-48

potable water on RE infrastructure, the recycled water must be trucked in via suitably marked trucks (perhaps painted purple to match the fire hydrants) so that observers can monitor for compliance.

Also, projects in the Antelope Valley will have longer distances to travel to and from a tertiary treated water source, so the requirement of "within one mile" would render this a wasted point. If RE developers are allowed or required to use potable water available within one mile of their projects, then a concentration of projects in one area would cause a more rapid loss of ground water, or loss of aqueduct water designated to local purveyors. Local residents are also concerned that small water districts that serve them, as well as agricultural interests with large wells are selling water to the huge developments inside and outside their communities. In this time of serious drought there may not be enough water to serve RE development. Requiring the use of recycled water would help protect water sources for residents.

C3-48 Cont.

NOISE

22.52.1655, C., 1., page 70/79. Small-Scale wind energy systems. Noise. " Noise from a small-scale wind energy system shall not exceed 60 dBA SEL (single event noise level), as measured at the closest neighboring inhabited dwelling." ***The treatment of Noise Pollution in the REO3 is deficient in a number of ways. 1) It applies only to small-scale wind energy facilities and ignores the substantially louder noise potential of utility-scale wind generation facilities (both structure- and ground-mounted). The noise limit application is too narrowly constrained in the REO3, and must be expanded to address all utility-scale generation projects. 2) It constrains the consideration of noise impacts to only existing inhabited dwellings, and ignores businesses and outdoor uses such as equestrian facilities (barns, corrals, trails), animal rescue facilities, agricultural uses, etc. It also ignores impacts to adjacent land that has not yet been developed for residential or agricultural use; it is likely that such land will be rendered worthless given the high noise threshold that the draft ordinance allows. This must be rectified by imposing a fence-line noise limit. 3) It establishes a very high (60 dB) noise threshold that is entirely unsuitable for rural areas. Ambient noise levels in such areas are typically less than 45 dBA,(quiet rural areas ambient level is 24dBA) and an increase of 10 dBA results in an approximate doubling of the sound, while an increase of 20 dBA results in an approximate quadrupling of the sound. The draft ordinance establishes a 60 dBA threshold, which essentially triples the ambient noise level in rural areas.***

C3-49

C3-50

To frame the issue in more understandable terms, 60 dBA is approximately the noise level one experiences 3 feet from an operating clothes washer or air conditioner. As it currently stands, the ordinance authorizes this continuous and exceptionally loud "noise overlay" in rural areas where the existing noise profile is virtually non-existent. The Commission is reminded that rural communities exist because rural residents seek the peace and quiet afforded by such communities. All of this is threatened by the high noise threshold established by theREO3. To address this concern, the threshold value must be reduced to 50 dBA. 4) It relies on a "Single Event Level" parameter which does not properly or accurately represent the continuous noise profile generated by wind energy facilities. While uses which occasionally create single noise events of 60 dBA or more may be reasonable in rural areas, uses which generate such noise levels on a continuous basis (such as wind turbines) are not. 5) Nowhere does the ordinance require any project proponent to provide noise data as part of the application process, nor does it require a "follow up" assessment at the site

C3-51

C3-52

C3-53

to confirm this noise provision is met. Worse yet, it provides no backstop protections to ensure compliance with this noise limit over time and after the wind turbine bearings and contact surfaces are worn down and no longer "true". A multilevel chart of allowable noise generation that depends on zoning and location would be a more democratic approach to noise levels that differ so much across the county. This currently proposed ordinance would essentially hold rural residents hostage to an urban noise level.

C3-53 Cont.

C3-54

22.52.1655., C., 2., page70/79. Visual Impact. "2. Visual Impact. Any small-scale wind energy system placed within the viewshed of a Scenic Drive, Scenic Highway or Scenic Route identified in the General Plan or in an applicable Area or Community Plan shall be assessed for its visual impacts, and appropriate conditions shall be applied relating to siting, buffers, and design of the system, ***Add: and may result in complete restriction. This should apply to utility-scale wind RE.***

C3-55

22.52.1660, Enforcement procedures. B., page 71/79. Nothing in this Section shall preclude the Director or designee from issuing a warning, field notice of violation, Notice of Violation, or citation prior to issuing a Final Zoning Enforcement Order for a non-compliant small-scale solar energy system, small-scale wind energy system, utility-scale solar energy facility, utility-scale wind energy facility or temporary meteorological tower. ***Please add a maximum number of violations that may be issued before a final notice of non-compliance is ordered. We understand a final notice can be issued any time, but this item B would allow an infinite number of violations, and the project could subsequently avoid a final order without an enumeration of process and ultimate action.***

C3-56

MINOR CONDITIONAL USE PERMITS

Section 67, 22.56.030., 10., a., page 74/79. Application Information Required. "Maps in the number prescribed, and drawn to a scale specified by the director, showing the location of all property included in the request, the location of all highways, streets, alleys and the location and dimensions of all lots or parcels of land within a distance of 500 feet from the exterior boundaries of the subject parcel of land. If the application is for a minor conditional use permit in accordance with Section 22.56.085, a distance of 300 feet from the exterior boundaries of the subject parcel of land shall be provided in lieu of 500 feet." ***A minor CUP, which allows accessory uses of a substantial nature, as currently unamended in this REO3; such as so-called small scale solar energy system covering 2.5 acres of a 5 acre parcel, Modification of a Significant Ridgeline, structure mounted utility-scale wind energy facilities, and temporary met towers. In the Antelope Valley, noticing requirements should include a further distance or at least match that required for a CUP (500 ft.). Without signage, a Minor CUP may go unnoticed. Include signage for North County Projects, or consider written and email notification to town councils and land owners within 1000 feet.***

C3-57

Section 69., 22.56.085, page 76/79, Minor Conditional Use Permit. An application for a minor conditional use permit may be filed for the following uses:

1. Modification of significant ridgeline protection provisions as provided in sections 22.44.143 D. 10. b; 22.44.143 D.10.c.; or 22.44.144 D. b.
2. Small-Scale solar energy systems, ground mounted, in the open space and watershed zone, in accordance with Part 15 of Chapter 22.52.
3. Small-Scale wind energy system in accordance with Part 15 of Chapter 22.52.

C3-58

4. Utility-Scale wind Energy Facility, structure mounted, in all zones except single family residence zone, in accordance with Part 15 of Chapter 22.52.

Remove item 1 as an item approved to file for a minor conditional use permit. Communities with significant ridgelines identified in CSDs have obviously identified them as "significant." To allow modification and variance from a CSD is counter to the purpose of that document, meant to protect rural communities from inappropriate development. This requires a CUP, with appeal to the board of supervisors.

C3-58 Cont.

Remove item 2 as an item approved to file for a minor conditional use permit. As discussed previously, the 2.5 acre allowance on 5 acre plus properties need more stringent review, since it qualifies as a "utility-scale" RE project, capable of powering 55-78 homes, and according to definitions provided in this unamended document. Also watershed zones need particular consideration because of their innate function supplying drinking water, recreation and respite, and sustaining life. See comments, page 8, above, regarding the discrepancy in definitions between utility-scale and small-scale RE.

C3-59

Remove item 3 as an item approved to file for a minor conditional use permit. In 22.52.1625, the REO3 allows 2 small-scale wind energy systems for 5 gross acres of land. For the same reasons listed above, and on page 8, the so-called small-scale wind energy system, as indicated in the ordinance, is 50kW; enough to power 8-23 homes. Two turbines would power 16-46 homes. The California Energy Commission describes utility-scale turbines as 50-500 kilowatts or more, and distributed use, or small-scale systems as 1-25 kilowatts. From the CEC Overview of Wind Energy: "The components of a utility-scale "wind farm" include wind turbines, an underground power transmission system, control and maintenance facilities, and a substation that connects the farm with the utility power grid. Utility-scale wind turbines are classified by size as follows: small (less than 50 kilowatts [kW]); intermediate (50 to 500 kW); and large (above 500 kW). . . . Another application of wind is in distributed use systems, which provide on-site power in either stand-alone or grid-connected configurations. Most such systems range in size from one to 25 kW. Distributed wind systems are applicable to industry, water districts, rural residences, agricultural use, and a wide variety of isolated power uses located in good wind resource areas" (http://www.energy.ca.gov/wind/overview.html). A 50kW small-scale wind system would power between 8 and 23 homes. This is not "primarily" onsite use. This may work for multiple family homes, or unlimited residence zones, but The ordinances also allows 2 turbines on a gross five acre acre parcel. According to definitions of a small-scale system, A limit of 16 -32 kW wind systems would be more than adequate for personal use. Anything more than this is not small-scale, this is utility scale, meant for offsite use, and should fall under a CUP.

C3-60

Remove item 4 as an item approved for a minor conditional use permit. Utility-scale, by its nature would be hard pressed to be classified as "minor" in nature, especially from a noise impact, visual impact, and biological impact. This requires a CUP.

C3-61

Section 69., 22.56.085, D., page 78/79. The decision of the Hearing Officer may be appealed to the commission. All appeals shall be filed within the time period set forth in, and shall be subject to all of the other provisions of Part 5 of Chapter 22.60 except that the decision of the commission shall be final

C3-62

and effective on the date of the decision and shall not be subject to further administrative appeal, unless the permit was considered by the commission concurrently with a decision on a general plan or specific plan amendment, zone change, development agreement or other legislative action. ***The underlined sentence should be stricken from this ordinance and kept as it is currently recorded in Part 5, 22.60.200, A: "Appeals. To avoid results inconsistent with the purposes of this*** Title 22***, unless otherwise specified or limited by specific provisions of this title, decisions of the director or hearing officer may be appealed to the commission; and decisions of the commission may be appealed to the board of supervisors." As the ordinance is written now, there is no appeal for a Minor CUP. As you can see above, there are problems with what is considered a minor modification with insignificant effect. This is an affront to the political process, by which constituents may request a decision be made by their elected officials. The part D would eliminate that possibility. In this REO3, that has the potential to substantially impact rural communities, we urge RP in the strongest possible way, to preserve residents' right to appeal to the board of supervisors regarding any permit approved by the planning commission.***

C3-62 Cont.

Again, we appreciate the opportunity to work toward the best version of this Renewable Energy Ordinance. We respectfully request the changes enumerated in this letter, and believe our best interests lie in protecting our communities from inappropriate renewable energy development, while encouraging distributed generation that will contribute greatly to the preservation of not only our rural lifestyle, but the environment that makes that available to us.

C3-63

Councils and Community Groups as signatories: Acton Town Council, Lake Los Angeles Rural Town Council, Leona Valley Town Council, Oso Town Council, Three Points-Liebre Mountain Town Council, Concerned Citizens of the West Antelope Valley.

Yours truly,

Susan Zahnter
Interim Director

Enclosures: 3

CC: Supervisor Michael D. Antonovich, Field Deputy Norm Hickling, Planning Deputy Edel Vizcarra

BEFORE SOLAR INSTALLATION (4/18/14 @ 110TH STREET WEST & AVENUE "J")

AFTER SOLAR INSTALLATION(3/16/15 @ 110TH STREET WEST & AVENUE "J")

BEFORE SOLAR INSTALLATION (4/18/14 @ 110TH STREET WEST & AVENUE "J")

AFTER SOLAR INSTALLATION (3/16/15 @ 110TH STREET WEST & AVENUE "J")

IMPACTED ENDANGERED SPECIES: TRICOLORED BLACKBIRD

In 2014, the Antelope Valley was the only Southern California region with successful breeding of the Tricolored Blackbird, representing **100%** of all of the breeding for the region.

Species Status:

As of 2014, the State of California has classified the Tricolored Blackbird as "Endangered".

In February 2015, the Center for Biological Diversity submitted an application to reclassify this species as Federally Endangered, which is anticipated to be approved.

Antelope Valley Breeding Locations (Foraging occurs in a 5 mile radius of breeding sites):

Holiday Lake	Fairmont Reservoir	Gorman Post Road/Sag Ponds
Lake Elizabeth	Ritter Pond	Leona Pond
Petersen Ranch (Leona Valley)	Branch Pond (Edwards AFB)	Piute Ponds (Edwards AFB)

IMPACTED THREATENED SPECIES: BURROWING OWL

Photograph utilized with permission from Dave Collins Images. Photo taken March 2015, contiguous to a solar facility and adjacent to the Antelope Valley California Poppy Reserve.

Species Status:

The Burrowing Owl is native to the Antelope Valley. These owls are found on fallow farm land and open fields in the West Antelope Valley. The burrowing owl is federally protected by the Migratory Bird Treaty Act in the U.S. and Mexico, and is listed as endangered, threatened, or as a Species of Concern in nine states, including California, where it is considered a Species of Special Concern by the California Department of Fish and Game.

Several now completed renewable energy projects, including the project at 110th Street and West Avenue "J", were home to the Burrowing Owl. The Burrowing Owl habitat is disappearing. This species has been observed in the Antelope Valley for decades.

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Response to Comment Letter C3

Association of Rural Town Councils
Susan Zahnter, Interim Director
March 16, 2015

Letter C3 was signed by the following town councils and community groups: Acton Town Council, Lake Los Angeles Rural Town Council, Leona Valley Town Council, Oso Town Council, Three Points-Liebre Mountain Town Council, and Concerned Citizens of the West Antelope Valley.

The majority of the comments contained in letter are identical to the comments in Letter C2. However, a few comments in this letter include additional text. Where this is the case, this additional text is addressed below. Letter C3 includes three additional comments that were not included in Letter C2, which are also addressed below (see Response C3-42, C3-43, and C3-44). This letter also includes attachments showing before-and-after images of solar energy projects and information about the tricolored blackbird and the burrowing owl.

C3-1 – C3-9 See Response C2-1 through C2-9.

C3-10 This comment is identical to Comment C2-10, with the exception that this comment also raises concerns regarding Minor CUPs and appeals. This concern is addressed in Response C2-59.

C3-11 – C3-14 See Response C2-11 through C2-14.

C3-15 This comment is identical to Comment C2-15, with the exception that additional text is included recommending the proposed Zoning Code amendments to require monopole construction for temporary MET towers and small-scale wind energy systems. As identified in Response C2-15, the proposed Zoning Code amendments have been revised to prohibit guy wires on temporary MET towers and small-scale wind energy systems.

C3-16 – C3-18 See Response C2-16 through C2-18.

C3-19 This comment is identical to Comment C2-19, with the exception that additional text is included in the provision that is recommended for inclusion in the proposed Zoning Code amendments. As described in Response C2-19, the County has revised the development standards for utility-scale wind energy facilities relative to ridgelines subsequent to the release of the Draft EIR (see Appendix A and Response S1-10).

C3-20 – C3-24 See Response C2-20 through C2-24.

C3-25 This comment is identical to Comment C2-25, with the exception that additional text is included in the provision that is recommended for inclusion in the proposed Zoning Code amendments. As stated in Response C2-19 and C3-19, the County has revised the development standards for utility-scale wind energy facilities relative to ridgelines in response to comments received (see Appendix A and Response S1-10).

C3-26 – C3-31 See Response C2-26 through C2-31.

C3-32 This comment is identical to Comment C2-32, with the exception of the addition of a parenthetical comment that complete restriction of utility-scale wind energy projects is preferred by the commenters. Utility-scale wind energy projects are currently allowed in the County. The proposed Zoning Code amendments would allow utility-scale structure-mounted wind energy facilities to be proposed in certain residential and agricultural zones where they are currently not allowed. This is consistent with the goals of the proposed project to incentivize structure-mounted projects. However, utility-scale ground-mounted wind energy projects would not be allowable in any additional zones upon approval of the proposed Zoning Code amendments. As a result, the proposed Zoning Code amendments are more stringent relative to where such facilities may be located (see Table 10-2). Furthermore, because such projects require further discretionary review and approval, decision makers would have an opportunity to deny approval of such projects in the future.

The request to prohibit utility-scale wind energy projects will be included in the Final EIR for review and consideration by decision makers.

C3-33 – C3-41 See Response C2-33 through C2-41.

C3-42 This comment consists of a statement that members of town councils have expressed concern regarding diesel emissions during construction and maintenance of utility-scale renewable energy projects. These effects are addressed in Section 4.3 of the EIR. Project-specific measures to comply with air quality standards would be applied on a project-by-project basis for utility-scale ground-mounted renewable energy projects.

C3-43 This comment consists of a statement there have been previous requests by citizens, councils, and other groups for a moratorium on utility-scale renewable energy projects until suitable protections and monitoring systems are in place

for protection of air quality and human health. This request will be included in the Final EIR for review and consideration by decision makers. It should be noted that the proposed Zoning Code amendments do not entitle any utility-scale ground-mounted renewable energy projects or any wind energy projects (see Table 10-2).

C3-44 Electromagnetic frequency is discussed in Section 4.8.8 of the Draft EIR. The recommendations for additional setbacks from residences will be include in the Final EIR for review and consideration by decision makers.

C3-45 – 63 See Responses C2-42 through C2-60.

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Comment Letter C4

Association of Rural Town Councils
C/O Three Points-Liebre Mountain Town Council
P.O. Box 76
Lake Hughes, CA 93532

16 March 2015

SENT VIA EMAIL

Ms. Susan Tae, Supervising Regional Planner, Section Head
Community Studies North Area
Department of Regional Planning
320 W. Temple Street, Room 1354
Los Angeles, CA 90012
stae@planning.lacounty.gov

Mr. Jay Lee, Planner
Renewable Energy Ordinance
Department of Regional Planning
320 W. Temple Street, Room 13th Floor
Los Angeles, CA 90012
jalee@planning.lacounty.gov

Dear Ms. Tae and Mr. Lee,

Subject: Renewable Energy Ordinance, Draft 3

On behalf of the Association of Rural Town Councils (ARTC), I appreciate the opportunity to comment on the Renewable Energy Ordinance, Draft 3 (REO3). This ordinance will have far-reaching effects on rural communities across the county; many of them have already experienced ill-effects of utility-scale renewable energy development covering thousands of acres in the Antelope Valley. Several aspects of the ordinance including, but not limited to, the time-frame to comment, water issues, noise, dust and Valley Fever concerns, nighttime lighting, Minor Conditional Use Permits (MCUP), Conditional Use Permits (CUP), small-scale and utility-scale renewable energy uses, protection of ridgelines, and biological considerations of development necessitate response, and the councils represented here request changes to the REO3 that would not only clarify existing language, but offer protections to not only town council areas, but the county at large.

C4-1

While the Renewable Energy Ordinance Team visited town councils and ARTC meetings during the fall and early winter of 2014, only a working draft document was available. The REO3 was not available for viewing until February 20th, and the comment period is actually cut short by "ideally" sending comments prior to the submission of the planning package that goes to planning commissioners. For some councils, approval of comments or letters is not possible because of how meeting dates fall in relation to the comment deadline, which is not listed on the released draft REO3. Two or three weeks is not enough time to thoroughly review this document, and its importance to rural communities is without question. We find it reasonable to request additional time for our concerns to be heard, and our suggestions implemented.

DEFINITIONS

Section 5, 22.08.210, U, page 4/79. Utility-Scale Solar Renewable Energy facility, ground-mounted. "Ground-mounted utility-scale solar renewable energy facility" means a facility affixed to the ground where renewable solar energy resources are used to generate direct electrical or thermal energy primarily for off-site use. This definition includes all on-site and off-site equipment and accessory structures related to the facility, including but not limited to solar collector arrays, wind turbines, mounting posts, substations, electrical infrastructure, transmission lines, operations and maintenance buildings, and other accessory structures." ***The definition, here, does not adequately address the exclusion of parabolic "boiler" type solar arrays or power "concentrating" towers, although the previous definition of "Solar Arrays" (Section 4, 22.08.190, S) "do not include concentrated solar thermal devices, which use lenses or mirrors to focus or reflect a large area of sunlight onto a small area." Part U's "including, but not limited to solar arrays" does not go on to define what other types of solar equipment are allowed. This opens the statement to include, essentially, everything. Please provide more specific language that excludes parabolic trough boiler and power tower type renewable energy systems from the ordinance. They also use tremendous amounts of water—precious in our high desert areas. Not only that, but well documented massive killing of birds at the Ivanpah plants at Primm, Nevada, and unprecedented glare beyond that of panels and FAA lighting on wind towers would render visual distraction to scenic areas and render useless the Rural Outdoor Lighting Ordinance, further imposing destruction of dark night sky views, and daytime views, too. Moreover, Part U also states structure mounted utility-scale solar energy facility that is "used to generate direct electrical or thermal energy primarily for off-site use, also contains more "including, but not limited to" language. There is no definition of thermal energy for off-site use. This should be more specifically described to assure solar concentrating "thermal" energy is not allowed.***

C4-1 Cont.

Section 6, 22.08.230, W, page 6/79. "Wind tower" means the vertical component, including blades if any, of a small-scale wind energy system, a utility-scale energy facility using wind resources, or a temporary meteorological tower that elevates the wind turbine generator and attached blades above the ground." ***This statement is confusing. Why not describe a meteorological tower as a "met tower" and a wind turbine with blades, meant to generate electricity, as a wind tower?***

LAND USE ZONES

As the document lists "Permitted Uses," "Accessory Uses," and "Uses Subject to Permits," through particular land use zones, for each zone, all utility-scale solar and wind energy facilities, structure mounted, are a permitted use (Sections 7-48, 22.20.080 through 22.25.320, pages 6-31). ***When we reach Zone C-R, Commercial Recreation, the ordinance allows ground mounted utility-scale solar and wind energy that is incompatible with recreational areas and should not be permitted (page 29/79).***

In Zone M-4, Section 48, 22.32.190, a CUP is needed for "use listed is located within 300 feet of a public school, public park, or a residential or A-1 Zone." The three hundred foot distance should be extended to two miles, since children, especially, are sensitive receptors, and according to Arline Bronzaft, B.A., M.A., Ph.D., who spoke at the Oct. 30 [2010] International Symposium on Adverse Health Effects from Wind Turbines, many other studies have demonstrated that intrusive noises, such as passing traffic or overhead aircraft, adversely affect children's cardiovascular systems,

memory, language development and ability to learn. The abstract of her article in Bulletin of Science Technology Society August 2011 vol. 31 no. 4 291-295 states, "Furthermore, based on our knowledge of the harmful effects of noise on children's health and the growing body of evidence to suggest the potential harmful effects of industrial wind turbine noise, it is strongly urged that further studies be conducted on the impacts of industrial wind turbines on their health, as well as the health of their parents, before forging ahead in siting industrial wind turbines."

Section 56, 22.40.430, page 35/79, A, Uses Subject to Permits, in O-S Zone, "Energy generating or storage devices, including but not limited to geothermal devices" are allowed with a CUP. ***Energy generating or storage devices are not appropriate use in open space lands that Regional Planning deems appropriate for "campgrounds, crops, grazing of animals, [and] resource management (22.40.410). The term "energy generation devices" is unclear, and if open space lands are appropriate places for them, they need to be described in detail and their purpose stated, justifying their placement.***

COMMUNITY STANDARDS DISTRICTS

Section 57, 22.44.113, Sec. 58, 22.44.113, Sec. 59, 22.44.133 page 35/79. ***According to*** Section 22.52.1605 *of the REO3,* ***supplemental district regulations (such as Community Standards District provisions) apply to all renewable energy projects. However, in instances where the REO3 regulates matters that are also addressed by CSD provisions, the REO3 prevails, and CSD provisions are subordinated. This untenable arrangement has never been explained, and Planning Staff have never provided any reasons for including such provisions. This portion of the REO3 must be revised to ensure that CSD provisions prevail, particularly in regard to utility scale wind and solar generation projects, unless the ordinance stipulates a more stringent or protective requirement, with regard to renewable energy. The reasons are obvious. CSDs are established for, constrained to, and address, developed residential uses, and they include provisions that are intended to protect these residential uses from incompatible industrial development such as that associated with utility-scale RE generation projects. Granting industrial uses the ability to sidestep community protection provisions of any CSD "by right" and without reason or justification undermines the entire CSD structure. If a renewable energy proponent wishes to develop a project that violates a CSD provision, then they should be required to go through the variance process just like any other project proponent that wishes to avoid CSD requirements. Above all, RE developers should not be granted a perfunctory "pass" that allows them to completely ignore the very development standards that communities have fought hard for and which protects residents from incompatible development.***

C4-1 Cont.

PART 15

Section 22.52.1600, Purpose, page 40/79. "This Part 15 establishes regulations and permit requirements that support and facilitate the development of small-scale solar energy systems, small scale wind energy systems, [Add: *Industrial*] utility-scale solar renewable energy facilities, [*Industrial*] utility-scale wind energy facilities, and temporary meteorological towers in a manner that protects public health, safety, and welfare, and minimizes significant safety hazards and impacts to the environment." ***The ordinance, as written, does not apply sufficient regulations that would protect rural residents against visual impacts—many of the roads in rural areas access considerable viewshed, with ridgelines not protected by CSDs, which are, then, not protected by this ordinance;***

air quality and threat of Valley Fever are not well addressed; safety is a concern of rural residents, who, during times of wildfire, rely heavily on aircraft water and retardant drops, which are impeded by 5oo foot tall wind turbines. There are also environmental considerations pertaining to wildlife, conservation areas, and public trust lands.

Section 22.52.1605, B, page 41/79. "Applicability of zone and supplemental district regulations. All provisions of the zone and any supplemental district in which a small-scale solar renewable energy system, small-scale wind energy system, utility-scale solar renewable energy facility, utility-scale wind energy facility, or temporary meteorological tower is located shall also apply. Where a provision of the zone or supplemental district regulates the same matter as this Part 15, whichever provision of this Part 15 is more restrictive shall apply." ***Please see above for reference to Community Standards Districts, and the last page of this letter, which details modifications that will require only a MCUP to change CSDs regarding placement of wind towers.***

Part E. 1., 2., Subsequent Application, page 42/79. "1. Any subsequent application modification(s) that would increase the physical size, height, or footprint of a previously approved small-scale solar renewable energy system, small-scale wind energy system, utility-scale solar renewable energy facility, utility-scale wind energy facility, or temporary meteorological tower; and 2. Any subsequent application modification(s) that would change the type of equipment used by the previously approved small-scale solar renewable energy system, small-scale wind energy system, utility-scale solar renewable energy facility, utility-scale wind energy facility, or temporary meteorological tower, except for replacement of equipment for maintenance purposes." ***Please assure us that any modifications that change a previously approved small-scale, or utility-scale renewable energy system would be required to submit a CUP or a Minor CUP, and both permitting processes fulfill a public notice process.***

22.52.1610, Application Materials, B, 4. a., v., page 43/79. "Watercourses." "The Project Area," **[unincorporated Los Angeles County]** ***according to California Department of Fish and Wildlife (CDFW), "supports aquatic, riparian, ephemeral and wetland habitats; therefore, a jurisdictional delineation of the creeks and their associated habitats should be a requirement of the Renewable Energy Ordinance for future projects"(June 2, 2014 REO2 Letter). The application materials should include those specific types of water related areas listed above.***

22.52.1610, B., 4. ix, page 43/79 "Transmission Lines." ***Please add Generation Tie lines. This is important for visual impacts evaluation.***

22.52.1610, B, 4. e, page 44/79. "Conceptual dust control plan." ***Conceptual means "not concrete." The REO3 needs to hold projects to a solid, not theoretical, dust plan that will actually mitigate dust. So far, Best Management Practices, and Rule 403 of the Antelope Valley Air Quality Management District, which include soil stabilizers, have proven unsuccessful in stopping wind driven dust events. Provide amendments that actually require more stringent control without polluting or damaging the environment.***

22.52.1610, B., 5., a., iii., page 45/79. Discussion of guy wires. ***The CDFW, in their response letter June 2, 2014 to REO2, request that no guy wires or non-strobe lighting be allowed on RE met towers and other structures, due to the fact that the wires pose a significant threat of mortality to avian***

C4-1 Cont.

wildlife. "Guy wires supporting communications and meteorological towers can kill birds at high rates, including birds protected by Fish and Game Code (Kerlinger et al. 2008, Longcore et al. 2008). Both the CEC [California Energy Commission]-CDFG Guidelines (2007) and the U.S. Fish and Wildlife Service (2000) recommend using freestanding tower designs due to avian mortality impacts from guywires. The Department recommends the Lead Agency require the use of monopole structures (when feasible), or otherwise utilize other technologies that do not use guy wires." Eliminate the use of guywires in REO3, and require monopole construction of met towers and small-scale wind energy systems.

22.52.1615, C. 1.d., page 48/79. "Project perimeter fencing shall incorporate small animal permeable design, unless otherwise modified by the Hearing Officer." ***Please define criteria by which modification of small animal permeable fencing be changed. Require assessment by CDFW and/or USFWS, in documented consultation with the Hearing Officer.***

22.52.1615, C. 2., page 48/79. Standards for Utility-scale Solar Energy Facilities. "Height of the solar array shall not exceed 25 feet." ***Solar arrays that reach up to 25 feet in height would be intrusive visually to flat or hilly landscapes and rural residential areas. Restrict height to 12 feet maximum.***

22.52.1615, C. 3.a., b., page 48/79. Lighting. "a. Motion sensors for entry-lighting to the on-site equipment structures and buildings; and b. Light-sensor or motion-sensor lighting for the main facility access gate, operations and maintenance building doorways, and any parking areas of facilities with operation and maintenance buildings." ***Motion-sensor lighting is obtrusive in dark areas, since it is constantly tripped by insects, animals, bats, birds, and blowing trash, so lights go off and on all night. This is not an appropriate requirement for all areas, nor does it comport with dark skies preservation. Lighting should remain off unless emergency maintenance is required, and only for the duration of the emergency activity.***

C4-1 Cont.

22.52.1615, C. 6., Significant Ridgelines. Page 49/79. "The highest point of a utility scale solar renewable energy facility shall 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." ***In order to address visual impacts to ALL ridgelines, impose the setback requirement recommended by CDFW, again, in their June 2, 2014 REO2 letter: "The Department [CDFW] recommends the Lead Agency [Regional Planning] consider a requirement for setbacks for all wind energy facilities and meteorological towers from significant ridgelines and Significant Environmental Areas at a minimum of twice the height of the proposed facility to reduce the potential impacts to migratory birds and other avifauna." This would ensure compliance with all CSDs, ensure less visual impact and allow adequate clearance to reduce potential impacts to birds and avifauna. Please amend to "The highest point of a utility-scale wind energy facility shall be located a minimum of twice the height of the proposed facility, or the most restrictive CSD which ever is greater."***

22.52.1625., A. 1., Standards for Temporary Meteorological Towers. Aviation Safety. All safety lights required by the Federal Aviation Administration that meets FAA standards shall be required for any wind tower, shall comply with applicable Federal Aviation Administration (FAA) standards. Any aviation-related agency or the Department may impose additional requirements as deemed necessary." ***Sections of the REO3 require the addition of "FAA-required safety lights" on all utility scale wind***

energy facilities. This poses a problem in that utility companies frequently state that FAA lights are required when, in fact, they are not. Take for example, the transmission lines recently constructed through Acton and the Angeles National Forest. SCE informed the California Public Utilities Commission (CPUC) that FAA required lights on the new towers, so the CPUC authorized them. However, the US Forest Service clarified that FAA lights were not actually required on such transmission tower structures, so SCE did not install lights on any of the 60+ miles of towers located in several utility corridors along ridgelines and hilltops throughout the Angeles National Forest. In fact, these "FAA-required" lights were only installed in residential areas located in valleys (specifically where aircraft do not fly). The point is, the County must take every possible action to avoid the installation of FAA lights and diligently confirm any applicant claim that "FAA-required" lights are indeed required. The County must also seek alternatives to such lights, and ensure that any lights which are installed shine light only in an upward direction and are not visible from any area that is at or below the elevation of the lights. Otherwise, the entire point of the County's recently adopted Rural Outdoor Lighting Ordinance is completely lost.

22.52.1625, C. 1., page 50/79. Standards for Temporary Meteorological Towers. Aviation Safety. ***"Wind towers" usage here is confusing when the title of the section refers to Temporary Met Towers. The language is used interchangeably and misleads the reader. There should be a separate section for Met Towers and one for Wind Towers. Table 22.52.1625 A--Again, no guy wires, please. Make all met towers free standing, according to recommendation by the CDFW, due to high avian mortality rates at guywired towers. Also, alternating bands of aviation orange and white paint, with visibility marker spheres may be necessary for aviation safety, but a time period for their permitted operation should be instituted, of not more than two years, otherwise the removal of the "temporary" met towers could take years, or never happen at all. The orange and white painted towers are obtrusive to scenic areas and rural communities, and this obtrusion should be limited with a proscribed time limit for their operation, and should follow decommissioning requirements that include complete removal of foundation and tower apparatus, and restoration of the site.***

C4-1 Cont.

Table 22.52.1625, page 51/79. Setback Requirements for Temporary Meteorological Towers. ***The table seems to mix wind tower setbacks and met tower setbacks, even though, as previously mentioned, the section applies to "Temporary Meteorological Towers."***

22.52.1630, A., 2., page 52/79. Standards for Small-scale Wind Energy Systems. Significant Ridgelines. ***See above comment at 22.52.1615, C. 6., which requests twice the height of the wind tower below the ridgeline, or the most restrictive CSD which ever is greater.***

22.52.1630, C.2.a., page 53/79. Small-scale Wind Energy Systems. Impacts to birds and bats. Design. "Use of trellis towers prohibited." ***Trellis towers are not the only threat to birds and bats. This would prevent perching and nest building dangerously near spinning blades, but blades do their own damage atop monopoles. Barotrauma (injury by rapid air pressure reduction) is the cause of death in a high proportion of bats found at wind energy facilities; 90% of bat fatalities involved internal hemorrhaging consistent with barotrauma. Institute a data base that identifies locations of small-scale wind energy systems, that includes review by independent biologists of the effects of numbers of small-scale turbines. Cumulatively, several in one area could lead to adverse effects on birds, bats, avifauna, and sensitive habitats in Significant Ecological Areas, near parks, public and private conservation lands, open-space areas, and rural communities. There needs to be criteria for limiting small-scale wind energy systems when their***

cumulative effects exert measurable harm to wildlife, cause noise-related effects, shadow flicker, and impinge on viewshed. How would CEQA be applied to cumulative impacts of numbers of individually placed small-scale wind energy systems?

22.52.1630, C, 2, c., ii., page 54/79. "No part of the small-scale wind energy system shall be closer than one mile from a known golden eagle nest site." ***How is adherence to the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act applied to small-scale wind individually and cumulatively? How does the County propose to comply with those acts through this REO3? According to the National Wind Coordinating Collaborative, Wind Turbine Interactions with Birds, Bats, and their Habitats: A Summary of Research Results and Priority Questions, Spring 2010, "Siting turbines away from where raptors concentrate may reduce raptor collision rates at wind facilities. Raptors are known to concentrate along ridge tops, upwind sides of slopes, and canyons (See CDFW recommendations, above, June 2014 REO2 letter) to take advantage of wind currents that are favorable for hunting and traveling, as well as for migratory flights" (Bednarz et al. 1990; Curry and Kerlinger 1998; Barrios and Rodriguez 2004; Hoover and Morrison 2005; Manville 2009)). Eagles' territory typically comprises one to six square miles. It would be reasonable to extend the range of nest site distance to small-scale wind turbines to five miles in all directions.***

22.52.1635, C., 5. page 57/79. Standards for Utility-Scale Wind Energy (USWE). Impacts to Birds and Bats. ***The California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development, published by the California Energy Commission (CEC) has been removed from the ordinance. If the County wishes to take a proactive approach to protection of birds and bats that has the CEC's approval, the guidelines would be a reasonable addition to requirement for a CUP. Please reinstate this requirement. Also, see above comment for small-scale wind energy systems.***

C4-1 Cont.

22.52.1635, C., 5, c.,i., (A)(B)(C), page 57/79. Setbacks. "No part of a ground-mounted utility-scale wind energy facility shall be closer than 0.25 miles from the following: (A) Adopted Significant Ecological Areas; (B) Recorded open space easements and publicly designated preserve areas; and , (C) Riparian areas and wetlands." ***One quarter of a mile 1,320 feet is not adequate setback for USWE. As noted previously, riparian areas attract birds; "significant" wildlife exists in SEAs. Noise, shadow flicker, ice throw, wind turbine collapse, and fire danger posed by turbines would indicate a minimum of one mile from sensitive areas. Also, there is no updated SEA map that shows final boundaries that would define setbacks.***

22.52.1635, C., 7, Table 22.52.1635-A, Location. Setbacks listed for onsite or offsite residence or habitable structure, above ground transmission line, public access easement or public trail, or property line, scenic drives and routes, and railways indicate 2X the tallest wind tower. Buildings other than a residential structure, 1X the tallest wind tower height. ***United States wind turbine project setbacks can be as much as 2 miles from residences, and projects are also measured for the distance of sound travel, and are required to provide a sound study as proof of adequate distance from towns and residences, with a reasonable expectation of a 30dcb in rural areas. This also protects residents, to a degree, from experiencing low-frequency tones, gear noise, and shadow flicker. Scenic viewshed from public trails, conservation easements with viewpoints, need to be considered. If preservation of safety, public health, and viewshed related to conservation and open-space lands is a priority for RP,***

extension of setbacks to one mile and two miles to replace 1X and 2X tower heights in the Table. Note: There is no discussion of reducing impacts to viewshed with regard to Utility-Scale Wind Energy projects, and for good reason. They cannot be disguised with screens or landscaping. That is why larger setbacks or completed restriction (preferred) are so important to implement.

22.52.1640, A., 1., 2., page 59/79. Modifications. "1. Due to topographic or physical features of the site, strict compliance with all of the required standards would substantially and unreasonably interfere with the establishment of the proposed development on the subject property; and 2. The requested modifications would not be contrary to the purpose of this Part 15." ***The REO3 allows energy developers to sidestep the few protections that do exist by simply requesting a "modification" to the requirements based on a claim that they "unreasonably interfere" with development. The only basis for denying such requests is if the County finds them to be "contrary to the purpose" of the REO. However, the County will never be able to make such a finding because the entire purpose of the Ordinance is to "support and facilitate" the development of RE projects (See Section 22.52.1600). The circular structure of these ordinance provisions ensures that large-scale energy projects will proceed quickly, with little or no community input, and without regard for community impacts. This is completely unacceptable, and the REO must be revised to strengthen (rather than decimate) protections for established rural residential communities. Please eliminate this Section A, items 1 and 2.***

22.52.1640, C., page 60/79. "A small-scale solar energy system that exceeds the maximum lot coverage required under subsection B.2 of Section 22.56.1615, requires approval of a Minor Conditional Use Permit pursuant to Part 1 of Chapter 22.56 and is subject to the development standards specified in subsections A and B.1 of Section 22.52.1615 and A.2 and C.5 of Section 22.52.1620 and conditions specified in subsections A.2.d and A.2.g of Section 22.52.1655." ***Section 22.52.1615 of the REO3 allows "Small-Scale Solar Energy Systems" to occupy up to 2.5 acres of land (on a five acre parcel), and 22.52.1640 B even provides a "Minor Conditional use Permit" pathway to increase this limit even further. However, the amount of energy generated by 2.5 acres of solar arrays is so substantial that it could never be deemed "primarily for on-site use" on rural residential and agricultural lots, as evidenced by data recently provided by the National Renewable Energy Laboratory (NREL). According to NREL's data, 2.5 acres of "tilt" photovoltaic solar panels will provide more than enough energy to support 55 homes, which greatly exceeds the on-site energy "need" of any residential parcel. Obviously, a 2.5 acre "solar array" that is constructed on rural residential/agricultural land is clearly not intended to "generate direct electrical or thermal energy primarily for on-site use" because no rural residential use is equivalent to 55 homes. In other words, the intent of placing 2.5 acres of PV panels on any land other than industrially or commercially zoned property is clearly to generate energy for off-site use, and therefore solar generation plants of this size intrinsically fail to meet the definition of "Small-Scale Solar Energy System" found in 22.08.190 of the Ordinance. For this reason, the size limit for "small-scale solar energy systems" installed on parcels zoned for rural residential/agricultural use must be much less than 2.5 acres. The ARTC recommends that the size limit be constrained to less than one quarter of an acre, which is still sufficient to supply more than 5 homes according to NREL.***

Also, the California Energy Commission describes utility-scale turbines as 50-500 kilowatts or more, and distributed use, or small-scale systems as 1-25 kilowatts. From the CEC Overview of Wind Energy: "The components of a utility-scale "wind farm" include wind turbines, an underground

C4-1 Cont.

power transmission system, control and maintenance facilities, and a substation that connects the farm with the utility power grid. Utility-scale wind turbines are classified by size as follows: small (less than 50 kilowatts [kW]); intermediate (50 to 500 kW); and large (above 500 kW). . . . Another application of wind is in distributed use systems, which provide on-site power in either stand-alone or grid-connected configurations. Most such systems range in size from one to 25 kW. Distributed wind systems are applicable to industry, water districts, rural residences, agricultural use, and a wide variety of isolated power uses located in good wind resource areas" (http://www.energy.ca.gov/wind/overview.html). A 50kW small-scale wind system would power between 8 and 23 homes. This is not "primarily" onsite use. This may work for multiple family homes, or unlimited residence zones, but The ordinances also allows 2 turbines on a gross 5 acre parcel. According to definition of small-scale wind, a limit of 16 -32 kW wind systems would be more than adequate for personal use.

22.52.1645, A., page 61/79. Uses Subject to Permits-Aviation Review. ***Please add an item 5. "Evaluate aviation fire fighting capabilities in the vicinity of rural areas and local airports surrounded by wind towers and utility-scale solar energy projects."***

Part 15. DUST CONTROL, AIR QUALITY, HEALTH EFFECTS

22.52.1655, A., 2., a., page 63/79. Uses Subject to Permits, Access roads. "Dirt access roads shall be treated with a suitable non-toxic long-term soil binder, or application of similarly effective material to control dust such as use of gravel." ***The REO3 authorizes the use of "soil binders" to control dust on access roads and other disturbed areas. However, the Commission is advised that soil binders in this application are not appropriate for the following reasons (cited in the California Stormwater BMP Handbook): 1) Soil Binders do not hold up to pedestrian or vehicular traffic, therefore authorizing their use on access roads will provide ineffective (and non-existent) dust control. 2) Soil binders often do not penetrate compacted soils, and are therefore ineffective. 3) The performance of soil binders are soil-texture specific; some do not work on sandy soils, and others do not work on silty soils. Both soil types can be collocated within the Antelope Valley, therefore it is unlikely that an effective soil binder will be found. 4) Soil binders do not perform well in low humidity areas. The Antelope Valley is located in the high desert and typically has very low relative humidity, therefore authorizing the use of soil binders in the Antelope Valley will provide ineffective dust control. 5) The use of soil binders may have water quality impacts due to their chemical makeup. Throughout the Antelope Valley, residents rely on wells for drinking water, therefore authorizing the use of soil binders in the Antelope Valley without first documenting the potential impacts of such materials on drinking water quality is wholly inappropriate.***

There are also problems with the dust control provisions that address non-access road areas and other portions of RE projects (see for example page 64 of 75). The REO3 appears to rely on existing vegetation to control dust levels, in that it authorizes mowing of such vegetation, but prohibits root system removal. This presumes that existing vegetation which thrives on the full sunlight of the Antelope Valley and perhaps relies on dew condensation for survival will continue to survive when covered over entirely by solar panels which eliminate both light and condensation. Worse yet, the Ordinance contains no "back up" dust control provisions detailed that must be implemented if (or rather when) the native vegetation dies out. This serious deficiency must be addressed before any renewable energy ordinance is adopted.

C4-1 Cont.

22.52.1655, 2., d., page 65/79, Site Disturbance. "The measures found in this subsection shall in no way be construed as a substitute for compliance with State requirements imposed by the applicable Air Quality Management District." **Add:** ***or air (and water) quality standards set forth by the Environmental Protection Agency.***

22.52.1655, 2., d., v. (A), Fugitive Dust. "Fugitive dust emission shall be controlled by phased earthwork, site watering, use of clean gravel not to exceed a depth of six inches where applicable, application of non-toxic soil stabilizers, limiting public access on unpaved areas, posting private roadways with reduced speeds, and/or re-vegetation. Use of other fugitive dust mitigation measures may be implemented if determined by the Department of Regional Planning and Department of Public Works to be suitable methods to adequately control dust during construction, operations, and removal and restoration activities." ***Detail other "suitable" methods of proposed alternative dust control that "may" be implemented. The residents of the Antelope Valley deserve protection in place before this ordinance is approved. Also, please add: Suitable methods of dust control shall not be toxic or polluting, and shall not cause further diminishment of air, surface water, or ground water quality after becoming airborne, or waterborne.***

The REO3 makes no mention of Valley Fever, or its prevention. It presumes well managed dust control through the use of soil stabilizers and water during construction. Water causes the fungus to bloom, further exacerbating the problem of controlling its proliferation and stabilization during high wind events in the Antelope Valley.

In the New Yorker Magazine, "Death Dust," January 20, 2014, "County Department of Public Health Epidemiologist, "Dr. Ramon Guevara, has made it a personal mission to educate people about the emergent issue of cocci in his territory. In L.A. County, we have so many cases, and we have a potentially large problem, because the population is growing. . . The highest rate of infection is in Antelope Valley, a rapidly developing outpost of the county that adjoins the southern edge of the San Joaquin Valley. In the past decade, the number of cases there has increased five hundred and forty-five percent. . . In addition to vacant land, Antelope Valley has abundant sunshine and regular high winds, which make it a logical place to build alternative-energy infrastructure. With California pledging to get a third of its electricity from renewable sources by 2020, the region is pitching itself as a hub for the industry. There are some thirty solar projects in development. . . The construction of the solar facilities could have unintended consequences for the environment, though, releasing hazardous dust into the air. "In the afternoon, when the kids come out of school, it's always windy,"[Dr.]Lauer [Phd., Environmental Microbiology at California State University, Bakersfield] says, "When they walk home, they all get exposed."
(http://www.newyorker.com/magazine/2014/01/20/death-dust).

Additionally, Dr. Guevara's response letter to the REO2 states, "There are no standards of criteria here for what is acceptable in terms of amount and duration of resultant dust, measurements of dusts, and rules for feasibility and appropriateness of vegetation preservation, planting, and maintenance. These should be put forth with processes to involve the surrounding communities." This has not appeared in the REO3. Residents of the Antelope Valley deserve concrete, detailed dust monitoring and control plans in place and these should include air quality monitoring stations provided in the permitting process that will determine the levels of particulate matter in the air,

C4-1 Cont.

reflecting the success or failure of vegetation-based dust control techniques, as well as soil binding products, to protect the population from Coccidioidomycosis.

Diesel Emissions. ***Council members have also expressed concern regarding diesel emissions releasing harmful particulates into the air during construction and maintenance of utility-scale RE projects.***

Moratorium. ***There have been previous requests by citizens, councils and other groups for a moratorium on utility-scale RE projects, until suitable protections and monitoring systems are in place for protection of air quality and human health.***

Electromagnetic Frequency. ***Some council members have expressed concerns regarding the effects of eletromagnetic fields produced by utility-scale RE, and possible effects on human health. This is an area of controversy, much like the complaints of residents near wind turbines because of the low-frequency hum and vibration, shadow flicker. Setbacks suggested for wind turbines and electrical substations from residences would work toward addressing this concern.***

22.52.1655. 2., e., page 68/79. Transmission Lines. "On-site and off-site transmission lines shall be placed underground to the satisfaction of the Department and Department of Public Works, except where above-ground crossings are otherwise required (such as over the California Aqueduct)." ***Please add: Generation Tie Lines shall be placed underground to minimize effects to the viewshed.***

22.52.1655. 2., f., page 68/79. Visual Impact. "Any utility-scale solar renewable energy facility that is placed within the viewshed of a Scenic Drive, Scenic Highway or Scenic Route identified in the General Plan or in an applicable Area Plan or Community Plan shall be analyzed for its visual impacts, and appropriate conditions relating to siting, buffering, height, and design of the facility may be imposed to minimize significant effects on the viewshed;" ***Please add more certain language: "design of the facility will be imposed to eliminate effects on the viewshed."***

22.52.1655. 2., g., h., iii. page 69/79. Water Quality protection. Water Use. "Measures to protect groundwater and surface water from waste discharge shall be incorporated into the project design, as appropriate, and shall meet the requirements of the Regional Water Quality Control Board. ***To guarantee projects' compliance with water quality protection, add: Water testing for waste and pollutant discharge to surface water and ground water shall be instituted, and results available for public view.***

22.52.1655. 2., iii. "The project shall use piped recycled water if it is available from the public right-of-way within one mile from the project site at fair market value and suitable for use. If such piped recycled water does not meet the water demand, the project shall use piped potable water if it is available from the public right of-way within one mile from the project site at fair market value and suitable for use. ***The REO3 does not address the enormous quantities of water that are required to operate solar RE projects. Allowing RE developers to obtain water from any source that they find convenient without regard for the impacts that such water withdrawals may have on the water table and domestic water wells is a substantial deficiency of the REO3. This deficiency is best addressed by requiring RE projects to rely solely on the use of recycled water (obtained from the "purple" hydrants that dot the Antelope Valley). To affect this purpose and eliminate the possibility of using***

C4-1 Cont.

potable water on RE infrastructure, the recycled water must be trucked in via suitably marked trucks (perhaps painted purple to match the fire hydrants) so that observers can monitor for compliance.

Also, projects in the Antelope Valley will have longer distances to travel to and from a tertiary treated water source, so the requirement of "within one mile" would render this a wasted point. If RE developers are allowed or required to use potable water available within one mile of their projects, then a concentration of projects in one area would cause a more rapid loss of ground water, or loss of aqueduct water designated to local purveyors. Local residents are also concerned that small water districts that serve them, as well as agricultural interests with large wells are selling water to the huge developments inside and outside their communities. In this time of serious drought there may not be enough water to serve RE development. Requiring the use of recycled water would help protect water sources for residents.

NOISE

22.52.1655, C., 1., page 70/79. Small-Scale wind energy systems. Noise. " Noise from a small-scale wind energy system shall not exceed 60 dBA SEL (single event noise level), as measured at the closest neighboring inhabited dwelling." ***The treatment of Noise Pollution in the REO3 is deficient in a number of ways. 1) It applies only to small-scale wind energy facilities and ignores the substantially louder noise potential of utility-scale wind generation facilities (both structure- and ground-mounted). The noise limit application is too narrowly constrained in the REO3, and must be expanded to address all utility-scale generation projects. 2) It constrains the consideration of noise impacts to only existing inhabited dwellings, and ignores businesses and outdoor uses such as equestrian facilities (barns, corrals, trails), animal rescue facilities, agricultural uses, etc. It also ignores impacts to adjacent land that has not yet been developed for residential or agricultural use; it is likely that such land will be rendered worthless given the high noise threshold that the draft ordinance allows. This must be rectified by imposing a fence-line noise limit. 3) It establishes a very high (60 dB) noise threshold that is entirely unsuitable for rural areas. Ambient noise levels in such areas are typically less than 45 dBA,(quiet rural areas ambient level is 24dBA) and an increase of 10 dBA results in an approximate doubling of the sound, while an increase of 20 dBA results in an approximate quadrupling of the sound. The draft ordinance establishes a 60 dBA threshold, which essentially triples the ambient noise level in rural areas.***

C4-1 Cont.

To frame the issue in more understandable terms, 60 dBA is approximately the noise level one experiences 3 feet from an operating clothes washer or air conditioner. As it currently stands, the ordinance authorizes this continuous and exceptionally loud "noise overlay" in rural areas where the existing noise profile is virtually non-existent. The Commission is reminded that rural communities exist because rural residents seek the peace and quiet afforded by such communities. All of this is threatened by the high noise threshold established by theREO3. To address this concern, the threshold value must be reduced to 50 dBA. 4) It relies on a "Single Event Level" parameter which does not properly or accurately represent the continuous noise profile generated by wind energy facilities. While uses which occasionally create single noise events of 60 dBA or more may be reasonable in rural areas, uses which generate such noise levels on a continuous basis (such as wind turbines) are not. 5) Nowhere does the ordinance require any project proponent to provide noise data as part of the application process, nor does it require a "follow up" assessment at the site

to confirm this noise provision is met. Worse yet, it provides no backstop protections to ensure compliance with this noise limit over time and after the wind turbine bearings and contact surfaces are worn down and no longer "true". A multilevel chart of allowable noise generation that depends on zoning and location would be a more democratic approach to noise levels that differ so much across the county. This currently proposed ordinance would essentially hold rural residents hostage to an urban noise level.

22.52.1655., C., 2., page70/79. Visual Impact. "2. Visual Impact. Any small-scale wind energy system placed within the viewshed of a Scenic Drive, Scenic Highway or Scenic Route identified in the General Plan or in an applicable Area or Community Plan shall be assessed for its visual impacts, and appropriate conditions shall be applied relating to siting, buffers, and design of the system, ***Add: and may result in complete restriction. This should apply to utility-scale wind RE.***

22.52.1660, Enforcement procedures. B., page 71/79. Nothing in this Section shall preclude the Director or designee from issuing a warning, field notice of violation, Notice of Violation, or citation prior to issuing a Final Zoning Enforcement Order for a non-compliant small-scale solar energy system, small-scale wind energy system, utility-scale solar energy facility, utility-scale wind energy facility or temporary meteorological tower. ***Please add a maximum number of violations that may be issued before a final notice of non-compliance is ordered. We understand a final notice can be issued any time, but this item B would allow an infinite number of violations, and the project could subsequently avoid a final order without an enumeration of process and ultimate action.***

MINOR CONDITIONAL USE PERMITS

C4-1 Cont.

Section 67, 22.56.030., 10., a., page 74/79. Application Information Required. "Maps in the number prescribed, and drawn to a scale specified by the director, showing the location of all property included in the request, the location of all highways, streets, alleys and the location and dimensions of all lots or parcels of land within a distance of 500 feet from the exterior boundaries of the subject parcel of land. If the application is for a minor conditional use permit in accordance with Section 22.56.085, a distance of 300 feet from the exterior boundaries of the subject parcel of land shall be provided in lieu of 500 feet." ***A minor CUP, which allows accessory uses of a substantial nature, as currently unamended in this REO3; such as so-called small scale solar energy system covering 2.5 acres of a 5 acre parcel, Modification of a Significant Ridgeline, structure mounted utility-scale wind energy facilities, and temporary met towers. In the Antelope Valley, noticing requirements should include a further distance or at least match that required for a CUP (500 ft.). Without signage, a Minor CUP may go unnoticed. Include signage for North County Projects, or consider written and email notification to town councils and land owners within 1000 feet.***

Section 69., 22.56.085, page 76/79, Minor Conditional Use Permit. An application for a minor conditional use permit may be filed for the following uses:

1. Modification of significant ridgeline protection provisions as provided in sections 22.44.143 D. 10. b; 22.44.143 D.10.c.; or 22.44.144 D. b.
2. Small-Scale solar energy systems, ground mounted, in the open space and watershed zone, in accordance with Part 15 of Chapter 22.52.
3. Small-Scale wind energy system in accordance with Part 15 of Chapter 22.52.

4. Utility-Scale wind Energy Facility, structure mounted, in all zones except single family residence zone, in accordance with Part 15 of Chapter 22.52.

Remove item 1 as an item approved to file for a minor conditional use permit. Communities with significant ridgelines identified in CSDs have obviously identified them as "significant." To allow modification and variance from a CSD is counter to the purpose of that document, meant to protect rural communities from inappropriate development. This requires a CUP, with appeal to the board of supervisors.

Remove item 2 as an item approved to file for a minor conditional use permit. As discussed previously, the 2.5 acre allowance on 5 acre plus properties need more stringent review, since it qualifies as a "utility-scale" RE project, capable of powering 55-78 homes, and according to definitions provided in this unamended document. Also watershed zones need particular consideration because of their innate function supplying drinking water, recreation and respite, and sustaining life. See comments, page 8, above, regarding the discrepancy in definitions between utility-scale and small-scale RE.

Remove item 3 as an item approved to file for a minor conditional use permit. In 22.52.1625, the REO3 allows 2 small-scale wind energy systems for 5 gross acres of land. For the same reasons listed above, and on page 8, the so-called small-scale wind energy system, as indicated in the ordinance, is 50kW; enough to power 8-23 homes. Two turbines would power 16-46 homes. The California Energy Commission describes utility-scale turbines as 50-500 kilowatts or more, and distributed use, or small-scale systems as 1-25 kilowatts. From the CEC Overview of Wind Energy: "The components of a utility-scale "wind farm" include wind turbines, an underground power transmission system, control and maintenance facilities, and a substation that connects the farm with the utility power grid. Utility-scale wind turbines are classified by size as follows: small (less than 50 kilowatts [kW]); intermediate (50 to 500 kW); and large (above 500 kW). . . . Another application of wind is in distributed use systems, which provide on-site power in either stand-alone or grid-connected configurations. Most such systems range in size from one to 25 kW. Distributed wind systems are applicable to industry, water districts, rural residences, agricultural use, and a wide variety of isolated power uses located in good wind resource areas" (http://www.energy.ca.gov/wind/overview.html). A 50kW small-scale wind system would power between 8 and 23 homes. This is not "primarily" onsite use. This may work for multiple family homes, or unlimited residence zones, but The ordinances also allows 2 turbines on a gross five acre acre parcel. According to definitions of a small-scale system, A limit of 16 -32 kW wind systems would be more than adequate for personal use. Anything more than this is not small-scale, this is utility scale, meant for offsite use, and should fall under a CUP.

Remove item 4 as an item approved for a minor conditional use permit. Utility-scale, by its nature would be hard pressed to be classified as "minor" in nature, especially from a noise impact, visual impact, and biological impact. This requires a CUP.

Section 69., 22.56.085, D., page 78/79. The decision of the Hearing Officer may be appealed to the commission. All appeals shall be filed within the time period set forth in, and shall be subject to all of the other provisions of Part 5 of Chapter 22.60 except that the decision of the commission shall be final

C4-1 Cont.

and effective on the date of the decision and shall not be subject to further administrative appeal, unless the permit was considered by the commission concurrently with a decision on a general plan or specific plan amendment, zone change, development agreement or other legislative action. ***The underlined sentence should be stricken from this ordinance and kept as it is currently recorded in Part 5, 22.60.200, A: "Appeals. To avoid results inconsistent with the purposes of this*** Title 22***, unless otherwise specified or limited by specific provisions of this title, decisions of the director or hearing officer may be appealed to the commission; and decisions of the commission may be appealed to the board of supervisors." As the ordinance is written now, there is no appeal for a Minor CUP. As you can see above, there are problems with what is considered a minor modification with insignificant effect. This is an affront to the political process, by which constituents may request a decision be made by their elected officials. The part D would eliminate that possibility. In this REO3, that has the potential to substantially impact rural communities, we urge RP in the strongest possible way, to preserve residents' right to appeal to the board of supervisors regarding any permit approved by the planning commission.***

C4-1 Cont.

Again, we appreciate the opportunity to work toward the best version of this Renewable Energy Ordinance. We respectfully request the changes enumerated in this letter, and believe our best interests lie in protecting our communities from inappropriate renewable energy development, while encouraging distributed generation that will contribute greatly to the preservation of not only our rural lifestyle, but the environment that makes that available to us.

Councils and Community Groups as signatories: Acton Town Council, Lake Los Angeles Rural Town Council, Leona Valley Town Council, Oso Town Council, Quartz Hill Town Council, Three Points-Liebre Mountain Town Council, Concerned Citizens of the West Antelope Valley.

Yours truly,

Susan Zahnter
Interim Director

CC: Supervisor Michael D. Antonovich, Field Deputy Norm Hickling, Planning Deputy Edel Vizcarra

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Response to Comment Letter C4

Association of Rural Town Councils
Susan Zahnter, Interim Director
March 16, 2015

Letter C4 was signed by the following town councils and community groups: Acton Town Council, Lake Los Angeles Rural Town Council, Leona Valley Town Council, Oso Town Council, Quartz Hill Town Council, Three Points-Liebre Mountain Town Council, and Concerned Citizens of the West Antelope Valley.

C4-1 Letter C4 is identical to letter C3, with the exception that Quartz Hill Town Council was added as a signatory on Letter C4. Aside from the addition of that town council, the text of the two letters are identical. As such, please see Responses C3-1 through C3-63 for response to Letter C4.

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Comment Letter O1

ENDANGERED HABITATS LEAGUE
DEDICATED TO ECOSYSTEM PROTECTION AND SUSTAINABLE LAND USE

March 10, 2015

VIA ELECTRONIC MAIL

Jay Lee
Department of Regional Planning
320 West Temple St, Room 1354
Los Angeles, CA 90012
Email: jalee@planning.lacounty.gov

RE: Renewable Energy Ordinance, Third Draft, and Draft Environmental Impact Report

Dear Mr. Lee:

The Endangered Habitats League (EHL) appreciates the opportunity to comment on this latest iteration of the draft Ordinance. For your reference, EHL is Southern California's only regional conservation group. Our primary concern is with the adverse effects of utility-scale solar and of utility and small-scale wind turbines on birds and bats. Small-scale wind turbines are up to 85 feet in height. O1-1

Wind turbines pose unavoidable risks to birds and bats flying into the moving blades, with monitoring studies often reporting gruesome mortality figures. Crucially, however, the propensity of a particular turbine to strike birds and bats – the amount of harm – is directly related to the *siting* of the turbine. And this location is more important than the turbine's size[1]. Therefore, it is a moral imperative for this Ordinance to, at a minimum, rigorously regulate the siting of all turbines. O1-2

In providing these comments, EHL is attempting to reduce harm, but as a matter of policy, we recommend that, if possible, Los Angeles County *prohibit* small-scale wind turbines. It should instead prioritize, incentivize, and facilitate rooftop solar as the renewable energy source of choice for small properties, farms, businesses, and individuals. We know of no economic or other evidence that solar is not a perfectly viable or indeed preferable substitute. O1-3

We note that the DEIR for this project acknowledges fifteen areas of significant and unavoidable impact to biological resources, most due to wind turbines. However, the O1-4

[1] See Hunt WG. 2002. Golden eagles in a perilous landscape: Predicting the effects of mitigation for energy-related mortality. California Energy Commission Report P500-02- 043F; and Committee on Environmental Impacts of Wind Energy Projects, National Research Council. 2007. Environmental Impacts of Wind-Energy Projects. National Academies Press, Washington (DC). 394 pp.

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proposed mitigation consists of *deferral* to subsequent discretionary processes, e.g., project level CUP or CEQA review, along with a few examples. However, under CEQA, specific mitigation measures or at least measurable performance standards must be developed and identified at this time. Moreover, the DEIR *fails* to identify many simple and effective mitigation measures whose feasibility is demonstrated by their adoption by the County of San Diego in its 2012 Wind Energy Ordinance[2]. Nevertheless, we recognize and appreciate that input on previous drafts has resulted in inclusion of some of these measures, and our comments will highlight the remaining gaps.

O1-4 Cont.

Wind

Utility-Scale

We are deeply concerned that the requirement for compliance with the *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development* for utility-scale turbines was removed from this latest draft[3]. Its absence creates a glaring defect in the Ordinance, as *initial site selection* is not otherwise regulated by the Ordinance, while it is a major feature of the Guidelines. And the Guidelines are *voluntary* with no mechanism to guarantee compliance.

For this reason, either:

1) the Ordinance or its implementation program should cite the Guidelines for use by projects seeking permits, ensure County staff's evaluation of compliance with them, and establish *substantial compliance* with the Guidelines or their equivalent as a prerequisite for project approval, or

2) the Ordinance should incorporate its own equivalent standards for rigorous initial site selection on both the macro and micro scales, and require the requisite bird and bat studies as baseline data.

Also, see below for comments on ridgelines, which are also applicable to utility-scale turbines.

O1-5

Small-Scale

Setbacks and siting

We acknowledge and support the provisions for setbacks from biological resources (preserves, SEAs, roosts, riparian areas and wetlands, etc.). We also acknowledge and support this critically important *finding* for siting:

O1-6

[2] See EHL comment letter of May 22, 2014 to Department of Regional Planning, *Renewable Energy Ordinance, Second Draft*, for a listing of these feasible mitigation measures.
[3] Although the DEIR states that *small* turbines would also be subject to the Guidelines, we did not find such a provision in the strikethrough text of Draft 2.

A. The proposed development is sited and designed and will be constructed in such a way to minimize significant impacts to the environment including impacts to birds and bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers;

However, one very important aspect of siting is inadequately addressed, that regarding ridgelines. Avoidance of ridgelines is a key factor in siting, as birds follow the updrafts provided by slopes and ridgelines as they fly and migrate. It is essential to keep these "bird highways" free of rotating turbine blades. The following language is the operable provision for small-scale turbines in the draft:

2. Significant ridgelines impact. The highest point of a small-scale wind energy system shall 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 within an applicable Community Standards District.

"Significant ridgelines" are defined elsewhere in the document as follows:

8. Significant Ridgeline Protection. For purposes of this section, ridgelines are defined as the line formed by meeting the tops of sloping surfaces of land, and significant ridgelines are defined as ridgelines which are highly visible and dominate the landscape. The locations of the significant ridgelines within this CSD are shown on the map following this section and the criteria used for their designation are provided in the appendix following this section.

The flaw in this draft is the *limitation* to "significant" ridgelines. This flaw arises from the fact that the ridgeline protection language was developed to protect *visual* rather than *biological* resources (see redline version). A review of County ridgelines maps shows that these are indeed limited to major landforms. However, birds and bats will use ridgeline updrafts for travel and migration *irrespective* of whether the ridgeline is "highly visible and dominates the landscape." While the mapped ridgelines currently covered by the Ordinance are indeed important, setback standards must be applied to other biologically significant ridgelines, and also refined in terms of distance. We note that as the draft Ordinance also applies the same ridgeline limitation to *utility-scale* turbines, that section is also flawed and should be improved.

As an example of a different approach, the San Diego County Wind Energy Ordinance defines ridgelines of concerns in the context of *degree of slope*. This appropriately narrows the scope of the ordinance to locations where slopes are steep and where updrafts are likely to be present. The San Diego setback standard and accompanying definitions are as follows:

Ridgelines. A small wind turbine tower shall not be located on a ridgeline, and the turbine blades shall not exceed the height of the ridgeline in an area within 150 feet of the ridgeline.

O1-6 Cont.

3

Ridgeline. The plateau or maximum elevation which extends along the top of Steep Slope Lands. A Ridgeline may increase or decrease in elevation as it extends along the top of Steep Slope Lands.

"Steep Slope Lands": All lands having a slope with natural gradient of 25% or greater and a minimum rise of 50 feet, unless said land has been substantially disturbed by previous legal grading. The minimum rise shall be measured vertically from the toe of slope to the top of slope within the project boundary. (From Resource Protection Ordinance)

Based upon our consultation with experts, we recommend the following changes to address ridgelines:

1) For the major ridgelines already specified in the Ordinance, the setback should be increased to 300 - 500 feet horizontal (depending on site characteristics) and 50 feet vertical. A setback of 150 feet is simply not enough for large flight paths.
2) A provision should be added to capture *other* biologically significant ridgelines. This would apply to slopes of 25% or greater, as long as a minimum rise of 50 feet was present. The San Diego County metric of 150 feet horizontal and the Los Angeles County metric of 50 feet vertical is a reasonable combination. Where 50 feet vertical is not topographically feasible for the site, or would compromise other setback requirements, the top of the turbine blade should not rise *above* the level of the ridgeline for a horizontal distance of 150 feet.

O1-6 Cont.

Attractors and miscellaneous

Turbine design and construction should eliminate features that *attract* birds or bats to the vicinity of the blades. We acknowledge and support the requirement for mowing vegetation at the base of the turbine, *although a requirement for covering the mowed area with gravel to prevent regrowth should be added.* We also acknowledge and support the prohibition of trellis designs.

However, improvement is needed to eliminate or reduce other potential perch sites near a turbine. Guy wires are such perch sites, and as in San Diego County, guy wires for small turbines should be prohibited. We note that exemptions in the case of technical infeasibility could still be made through normal County procedures.

O1-7

A similar concern applies to transmission lines that may connect the small turbine to the grid, to batteries, or to whatever device that is going to be powered by the turbine. These potential perch sites should be undergrounded, which also reduces electrocution risk.

O1-8

4

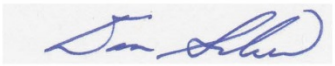
Finally, there should be an explicit provision for small turbines that are not operable to be removed and decommissioned, as spinning blades without producing useable electricity can only do harm. OI-9

Solar

The Ordinance should contain siting standards for large scale solar when not part of the DRECP master plan. Such standards should identify already disturbed areas like fallowed fields or agricultural land for siting. Also, solar facilities that mimic water bodies through reflections should be prohibited. OI-10

In conclusion, we appreciate the progress made in reducing harm to birds and bats. We have also noted important areas for additional improvement that constitute *feasible mitigation measures* under CEQA to reduce acknowledged significant biological impacts. Thank you very much for considering our recommendations and we once again appreciate the chance to participate in this process. OI-11

Yours truly,



Dan Silver
Executive Director

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Response to Comment Letter O1

Endangered Habitats League
Dan Silver, Executive Director
March 10, 2015

O1-1 This comment introduces the organization and also expresses the organization's primary concern, which is the effect of utility-scale solar energy facilities and wind turbines (both small-scale and utility-scale) on birds and bats.

Impacts of renewable energy projects developed pursuant to the proposed Zoning Code amendments related to biological resources are addressed in Section 4.4 of the Draft EIR. The commenter's specific concerns and suggested provisions related to birds and bats are further addressed in the responses below.

O1-2 This comment pertains to regulating the siting of wind turbines to minimize bird and bat mortality. The comment requests that the proposed Zoning Code amendments "rigorously regulate the siting of all turbines." This request will be included in the Final EIR for review and consideration by the decision makers.

Impacts of wind turbines developed pursuant to the proposed Zoning Code amendments on biological resources are considered and addressed in Section 4.4 of the Draft EIR. The Draft EIR identified significant and unavoidable impacts to biological resources. A discussion of the USFWS Land-based Wind Energy Guidelines is provided in Section 4.4, which emphasize the importance of proper turbine siting stating that "collision risk to individual birds and bats at a particular wind turbine may be the result of complex interactions among species distribution, relative abundance, behavior, weather conditions (e.g., wind, temperature) and site characteristics" (USFWS 2012). The program-level analysis of the effects to birds and bats provided in the EIR includes a description of the potential bird and bat species at risk in the planning area, a discussion of areas of potential high bird abundance, and a discussion of potential bird migration routes. The specific risk posed to birds and bats from wind turbines would depend upon the specifics of the proposed project, the proposed project site, and the bird and bat use and behavior at the site. Below is a description of how the proposed Zoning Code amendments would address and regulate the siting of wind turbines.

Zoning Restrictions. The proposed Zoning Code amendments employ a number of tools that can be feasibly implemented at the Countywide scale to regulate the siting of wind turbines. As shown in Table 10-2, the proposed Zoning Code amendments

would prohibit all utility-scale wind energy projects from being constructed in the O-S and W zones, in the residential zones, and in the A-1 zone. These prohibitions are more restrictive than those of the current Zoning Code provisions, which allow for utility-scale wind energy projects in the W zone upon discretionary approval. The W zone encompasses the majority of the San Gabriel Mountains, and the O-S zone encompasses smaller areas primarily scattered throughout the Santa Monica Mountains, the San Gabriel Mountains, and the Antelope Valley (see Figure 4.10-1, Existing Zoning Map, in the EIR). Utility-scale ground-mounted wind energy facilities would also be prohibited in SEAs and would require discretionary review in the industrial zones. In contrast, under the current Zoning Code provisions, such facilities are allowed in SEAs upon SEATAC review and discretionary approval and are also allowed with a ministerial permit in some industrial zones. Small-scale ground-mounted wind energy systems would require an SEA CUP and SEATAC review if they are proposed within a SEA. For the small-scale wind energy systems, the existing zoning restrictions would apply, as the proposed Zoning Code amendments no longer include changes to zoning for small-scale wind energy systems (see the Preface of this Final EIR for details about why the existing provisions for small-scale wind energy systems would remain in place under the proposed project). Existing zoning restrictions for small-scale wind energy systems prohibit such systems from being located in the W zone, the commercial zones, and the industrial zones (with the exception of M-1 and D-2, in which such projects would continue to be allowed with discretionary approval).

Setbacks. In addition to regulating the siting of wind turbines through zoning, the proposed Zoning Code amendments incorporate elements from the *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development* to establish baseline standards for setbacks from sensitive resources. The proposed Zoning Code amendments include two provisions for setbacks from ridgelines for utility-scale ground-mounted wind energy projects:

1. The highest point of a utility-scale ground-mounted wind energy project would be required to be located at least 50 vertical feet and 300 horizontal feet from a significant ridgeline identified in the general plan, in an applicable area or community plan, or within an applicable community standards district.
2. Additional setbacks would be required from Hillside Management Areas (proposed project applicants would be required to map the location of any Hillside Management Area located within a 500-foot radius of any proposed utility-scale ground-mounted wind energy project which rises over 50 vertical feet in elevation as measured from the start of the 25% slopes. For any of these

mapped areas, the wind energy system or facility would be required to be located at least 300 horizontal feet from the maximum elevations, which are the highest points where the land slopes away, and the highest point of the wind energy system or facility would be prohibited from protruding above these maximum elevations).

The existing ridgeline protection measures that are in place for small-scale wind energy systems would remain in place under the proposed project. Additionally, under the proposed project, these protection measures would also apply to utility-scale structure-mounted wind energy facilities (see Response S1-10 for details). While the existing regulations for small-scale wind energy systems would remain in place as described above, the proposed Zoning Code amendments include the addition of several bird and bat protection provisions to the existing regulations for small-scale ground-mounted wind energy systems. Under these proposed provisions, small-scale ground-mounted wind energy systems would not be allowed closer than 300 feet (or five times the system height, whichever is greater) from bat roosting sites, recorded open space easements and publicly designed preserve areas, or riparian areas and wetlands. Small-scale wind energy systems would also not be allowed closer than 1.0 mile to a known golden eagle nest site. Additional setbacks would be required for utility-scale ground-mounted wind energy facilities. Such facilities would not be allowed closer than 0.25 miles from an SEA, recorded open space easements and publicly designated preserve areas, and riparian areas and wetlands. No part of such a facility would be allowed closer than 0.5 mile from a bat roosting site and 1.0 mile from a known golden eagle nest site.

Restrictions on Bird Attractors. In addition to the provisions described above that would be added to the existing regulations for small-scale wind energy systems, the proposed Zoning Code amendments would include a provision to prohibit guy wires on small-scale wind energy systems and temporary MET towers. This provision would also apply to utility-scale projects. Additionally, under the proposed Zoning Code amendments, the vegetation within the entire area within 10 feet of the base of a wind tower would be required to be mowed and appropriate measures would be required to prevent re-growth. This provision would apply to both small-scale ground-mounted wind energy systems and utility-scale ground-mounted wind energy facilities.

Required Findings. For utility-scale wind energy projects the following finding must be made in order for a Hearing Officer to approve such a project: "The proposed use is sited and designed and will be constructed in such a way to minimize significant impacts to the environment including impacts to birds and

bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers."

Further CEQA Review. In addition to the above restrictions on where wind energy projects can be developed in the unincorporated County, additional siting considerations would be included in the CEQA review and discretionary approval process for wind energy projects developed pursuant to the proposed ordinance. Such considerations would take into account biological resources, as well as other environmental concerns.

Mitigation. Mitigation is provided in the Draft EIR to ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future projects that are subject to discretionary review (see MM BIO-1). This would include wind energy systems and facilities, as well as temporary MET towers. MM BIO-1 provides recommendations for standard mitigation measures that can be applied to these future projects if significant impacts are identified during CEQA review. The following recommended measures are particularly relevant to wind energy projects:

- For significant impacts to sensitive species, natural communities, or ecological processes (like wildlife movement or hydrological processes) resulting from ground disturbance impacts associated with ground-mounted renewable energy facilities, compensatory mitigation would generally involve one or a combination of the following actions: On or off-site habitat preservation, habitat restoration/enhancement, long-term habitat management activities, and/or species translocations.
- For impacts to federal or state-listed species from ground-mounted renewable energy facilities, incidental take authorization would be required from the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife.
- For impacts to jurisdictional wetlands and waters from ground-mounted renewable energy facilities, permits and/or approvals would be required from the appropriate regulatory agencies with jurisdiction over the wetlands and waters.

Future mitigation measures developed for specific wind energy projects or temporary MET towers would not be limited to the above measures. Other site-specific measures, as well as permits, could be required, depending on the conclusions of the project-level CEQA analysis and on the site-specific conditions of the project site and vicinity.

Alternative Site Analysis. If a project-specific EIR is required, alternative sites that would avoid or substantially lessen the significant effects of a project may be identified and analyzed as part of the alternatives analysis required by CEQA Guidelines Section 15126.6.

Existing Requirements. As described above, the existing requirements for small-scale wind energy systems and temporary MET towers would remain in place under the proposed project. However, the proposed project includes the addition of bird and bat protection provisions for small-scale ground-mounted wind energy systems. These provisions are not part of the existing Zoning Code. As such, the proposed project represents an increase in the degree to which small-scale ground-mounted wind energy systems are regulated relative to their potential effects on sensitive species. The EIR for the proposed Zoning Code amendments identifies potentially significant and unavoidable impacts that may occur from the implementation of future small-scale wind energy systems and temporary MET towers relative to biological resources. However, when compared with baseline regulatory conditions, the projects that would be allowable under the proposed Zoning Code amendments would have less effect on bird and bat species. Furthermore, the existing Zoning Code does not contain regulations specific to utility-scale wind energy facilities. As such, the proposed Zoning Code amendments establish baseline standards where there currently are none. The intent of including provisions for utility-scale ground-mounted wind energy facilities in the Zoning Code is not to promote such facilities but to alert developers to the review system that they must follow and to the types of conditions that would be imposed.

O1-3 This comment consists of a recommendation to prohibit small-scale wind energy systems and to "prioritize, incentivize, and facilitate" structure-mounted solar energy systems. This comment will be included in the Final EIR for review and consideration by the decision makers.

One of the primary objectives of the proposed project is to "encourage the development of small-scale and structure-mounted renewable energy systems and facilities through a streamlined and standardized permit review process." Prohibiting small-scale wind energy systems would be inconsistent with this project objective and is therefore not feasible. Additionally, the state has enacted legislation to promote the use of wind energy (see Government Code Sections 65893 et seq.), which encourages local agencies to not unreasonably restrict the ability of property owners to install small-scale wind energy systems.

For the reasons described above, the Zoning Code does not prohibit or unreasonably restrict small-scale wind energy systems. However, due to the potential for such systems to affect biological resources and to have other land use effects, the existing and proposed Zoning Code amendments contain allowable restrictions on such systems pertaining to siting, setbacks, height, and design (see Comment O1-2). While the proposed Zoning Code amendments do not prohibit small-scale wind energy systems, it is anticipated that the differences in approval requirements for small-scale wind energy versus small-scale structure-mounted solar energy would incentivize the use of small-scale solar energy.

As described in Section 10.1, the environmental effects of wind energy systems have been analyzed at the programmatic level in this EIR. Site-specific issues of wind turbines, including effects to biological resources, would be analyzed during project-level CEQA review and would also be brought before decision makers at the time of discretionary review. Additionally, mitigation is provided in the EIR to ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future small-scale wind energy systems (see MM BIO-1). Also refer to Response O1-2 for details about how the proposed Zoning Code amendments would address and regulate the siting of wind turbines.

O1-4 This comment pertains to the mitigation measures given in Section 4.4 of the Draft EIR for the effects of wind turbines on biological resources. The commenter states that the mitigation provided in the Draft EIR defers formulating specific mitigation measures and measurable performance standards to future project-level CEQA review.

As described in Section 10.1, this EIR analyzes several types of renewable energy projects at the project level and others at a programmatic level. Project types analyzed at the project level consist of small-scale solar energy projects and structure-mounted utility-scale solar energy facilities. Projects analyzed at the programmatic level consist of utility-scale ground-mounted projects (both wind and solar), small-scale wind energy projects, and temporary MET towers.

For the project-level components, impact avoidance and minimization measures were incorporated into the standards for those projects as part of the proposed Zoning Code amendments. These consist of setbacks and size limitations, which limit ground disturbance associated with small-scale ground-mounted solar energy projects. See Response S1-12. Furthermore, subsequent to the release of the Draft EIR, MM BIO-3 was developed to address the potentially significant effects of small-scale ground-mounted solar energy systems. This measure has been added to Section 4.4 as part of

the Final EIR. Per CEQA Guidelines Section 15088.5, this revision to the EIR does not constitute a significant new change resulting in a need to recirculate the EIR.

For program-level components, impact avoidance and minimization measures were also incorporated into the standards, findings, and conditions of approval for those projects in the proposed Zoning Code amendments. The standards, findings, and conditions of approval are requirements that would be incorporated into the wind energy projects developed pursuant to the proposed Zoning Code amendments across the unincorporated County (see Response O1-2 for a list of these avoidance and minimization measures). Other measures include designing utility-scale ground-mounted facilities to minimize erosion and sedimentation, to preserve natural topography, to protect water quality, and to minimize effects to viewsheds. However, as described in Response O1-2, additional site-specific mitigation measures would be identified on a project-by-project basis during further CEQA review if it is determined that a project would have a significant effect after compliance with the standards and conditions of approval in the proposed Zoning Code amendments.

Because the proposed Zoning Code amendments apply to a large and highly variable geographic area, it is not feasible at this time to predict the possible site-specific issues that may arise during the development of future utility-scale ground-mounted projects, wind energy projects, and temporary MET towers. For example, at the programmatic level, it is not possible to quantify the potential effects of wind turbines on birds and bats or to specify the required mitigation measures for those effects due to the highly site-specific and project-specific nature of these impacts. The number of turbines, the height of turbines, the spacing of turbines, the relationship of the turbines to landscape features, the behavior and abundance of resident bird and bat species in and around the site, the prevalence of migrating bird and bat species through the area, the habitat around the turbines, and the prey/foraging potential around the turbines are some of the factors that influence the risk of impact that could result from wind turbines. As such, the programmatic analysis sufficiently identifies the potential impact and appropriately concludes that the specific impacts and mitigation for such impacts would be addressed during subsequent environmental review.

In its 2012 Wind Energy Ordinance, the County of San Diego allows small wind turbines to be permitted with ministerial review, which means that they are exempt from further CEQA consideration. In contrast, in the County of Los Angeles discretionary approval would continue to be required for all wind energy projects under the proposed Zoning Code amendments. As such, these projects could potentially be subject to additional mitigation measures if significant impacts are

identified during the project-specific CEQA review. However, this reference to the mitigation measures adopted by the County of San Diego for their Wind Energy Ordinance will be included in the Final EIR for review and consideration by the decision makers.

O1-5 This comment pertains to removal of the requirement for utility-scale wind energy facilities to comply with the *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development (Guidelines)*. This comment also provides a suggested revision to the proposed Zoning Code amendments pertaining to initial site selection for utility-scale wind energy facilities, which would have been addressed through compliance with the *Guidelines*.

Section 4.4 of the Draft EIR considers and addresses the potential environmental effects of utility-scale wind energy facilities on biological resources. The reference to small-scale wind energy systems being subject to the *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development* has been removed from the Draft EIR as part of the Final EIR. This change does not alter the significance determinations given in Section 4.4 of the Draft EIR. Per CEQA Guidelines Section 15088.5, this correction does not constitute a significant new change resulting in a need to recirculate the EIR.

In the Relevant Plans, Policies, and Ordinances section of the Draft EIR (Section 4.4.2), the USFWS Land-based Wind Energy Guidelines are summarized, which are voluntary guidelines for the development of wind energy projects (USFWS 2012). These guidelines endorse a tiered approach for screening, siting, studying, and monitoring wind energy development projects. These guidelines, as well as existing federal, state, and local laws and regulations including but not limited to the federal and state Endangered Species Acts, federal Clean Water Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and the California Fish and Game Code, would all be considerations for the screening and site selection of utility-scale wind energy facilities. The *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development* was removed from the text of the Zoning Code amendments because a requirement to comply with these guidelines in the County Code would require the County to adopt the guidelines as a policy document of its own. However, in place of requiring compliance with these guidelines, the County incorporated specific and pertinent measures from these guidelines in to the text of the proposed Zoning Code amendments, such as required setbacks from biologically sensitive areas. Furthermore, as methods to minimize the effects of wind energy projects on biological resources change over time, the County has the flexibility to

adapt to these changes and to implement the new standards to specific projects through the discretionary review process.

Utility-scale wind energy facilities would be subject to discretionary review and project-level CEQA analysis (see Section 10.1 for a description of the future discretionary review and CEQA review that future projects would undergo). As such, these projects could potentially be subject to additional mitigation measures if significant impacts are identified during project-specific CEQA review. During project-specific CEQA review, alternative sites that would avoid or substantially lessen the significant effects of a project may also be identified and analyzed as part of the alternatives analysis required by CEQA Guidelines Section 15126.6.

See Comment O1-2 regarding siting, setbacks, height, and design restrictions included in the proposed Zoning Code amendments.

O1-6 This comment consists of a suggested revision and provision for the proposed Zoning Code amendments. In response to this comment, the proposed Zoning Code amendments have been revised to account for ridgelines that are not protected as scenic resources and to extend the horizontal setback. (See Appendix A, Response S1-10, and Response O1-2). The impact analysis in Section 4.4 of the Draft EIR acknowledges the potential impacts from wind energy projects on migratory birds and wildlife movement along ridgelines and other landscape features. By incorporating setbacks from ridgelines in the proposed Zoning Code amendments, the potential for impacts to bird movement would be reduced; however, the impact under Criterion A and B would remain potentially significant and unavoidable.

As noted in Response S1-10, ridgeline protection measures for small-scale wind energy systems cannot be made more restrictive than what is currently required in Part 15 (see the Preface of this Final EIR for details; see also Government Code Section 65893 et seq.).

O1-7 This comment consists of two suggested revisions to the proposed Zoning Code amendments. The commenter recommends that (1) a requirement for covering the mowed area around the base of wind turbines with gravel to prevent regrowth should be added and (2) guy wires for small-scale wind energy systems should be prohibited.

The potential for avian species to be attracted to or otherwise impacted by the wires, equipment, and vegetation near wind turbines is discussed in the Avian and Bat Risks and Indirect Impacts sections of Criterion A and B in the Section 4.4.4 of the Draft EIR. Bird collisions with guy wires supporting wind turbines

and temporary MET towers were identified as a potential impact, and the attraction of species to modified habitats around facilities was also identified as a potential indirect impact to bird species.

However, subsequent to the release of the Draft EIR, provisions were added to the proposed Zoning Code amendments that prohibit guy wires on both small-scale wind energy systems and temporary MET towers. Furthermore, a provision was added for small-scale ground-mounted wind energy systems requiring "appropriate measures to be applied to prevent re-growth" in the mowed area around wind turbines. This provision would also apply to utility-scale ground-mounted wind energy facilities. This change does not alter the significance determinations given in the Draft EIR. Per CEQA Guidelines Section 15088.5, these changes in the text of the proposed Zoning Code amendments do not constitute a significant new change resulting in a need to recirculate the EIR. The commenter's specific suggestion regarding application of gravel to the mowed area around wind turbines will be included as part of the Final EIR for review and consideration by decision makers.

O1-8 This comment raises concerns about transmission lines connecting small-scale wind energy systems to the grid and suggests that these lines be undergrounded to prevent avian species from perching in proximity to a wind turbine and from being electrocuted by the transmission lines. This suggested requirement will be included in the Final EIR for review and consideration by the decision makers.

The Draft EIR addresses the potential effects of transmission lines associated with small-scale wind energy systems on avian species in Section 4.4.4. Under Criterion A and B of the biological impact analysis, bird collisions with or electrocution by transmission lines was identified as contributing to the potential significant and unavoidable impact associated with small-scale wind energy systems.

It is noted that the proposed Zoning Code amendments would require undergrounding of transmission lines where feasible as a condition of approval for utility-scale ground-mounted projects. Requiring more stringent development standards for utility-scale ground-mounted wind energy facilities, such as undergrounding of transmission lines, would encourage development of small-scale systems over utility-scale ground-mounted facilities. This is consistent with one of the objectives of the proposed project, which is to "encourage the development of small-scale and structure-mounted renewable energy systems and facilities through a streamlined and standardized permit review process."

In the event that transmission lines were to be proposed as part of a future small-scale wind energy system, the effects of such lines would be evaluated under CEQA as part of the discretionary review process. Undergrounding could be imposed on a case-by-case basis as part of the conditions of approval for the small-scale wind energy system. Or, if potentially significant effects are identified during CEQA review in association with any proposed transmission lines, undergrounding could be incorporated as mitigation.

O1-9 This comment suggests an "explicit provision" for the removal and decommissioning of small-scale wind energy systems that are not operable. Subsequent to the release of the Draft EIR, the proposed Zoning Code amendments have been revised. The existing regulations for small-scale wind energy systems and temporary MET towers would now remain in place under the proposed project. Per CEQA Guidelines Section 15088.5, this change does not constitute a significant new change resulting in a need to recirculate the EIR. The existing regulations for small-scale wind energy systems include a provision for removal of both small-scale wind energy systems and temporary MET towers. Within 6 months after the operation of a small-scale wind energy system or temporary MET tower has ceased or the permit has expired (whichever occurs first), the permittee is required to remove the system or temporary MET tower, clear the site of all equipment, and restore the site as near to its prior conditions as practicable. See Appendix A for more details.

It is also noted that the proposed Zoning Code amendments contain provisions for decommissioning of utility-scale ground-mounted facilities (see Response S1-13 for a summary of these provisions). As required by CEQA, the EIR for the proposed Zoning Code amendments addresses all phases of future projects developed pursuant to the Zoning Code amendments. As such, the environmental effects of decommissioning are captured in the analysis within the Draft EIR.

O1-10 This comment suggests that the proposed Zoning Code amendments incorporate siting standards for utility-scale solar energy facilities. The commenter recommends that such standards should identify already disturbed areas like fallowed fields or agricultural land for siting. The comment also states that solar facilities that look like waterbodies should be prohibited.

Before the County began drafting the proposed Zoning Code amendments, staff developed a renewable energy development map that identified numerous habitat types in the County and that specified target areas for renewable energy development that avoided sensitive habitats and sensitive land uses. In June 2011, the County hosted a meeting to solicit comments on the renewable energy development map and

to allow diverse stakeholders to share their perspectives and concerns regarding renewable energy development. The map was retracted after the meeting due to concerns from numerous stakeholders. At this time, the County decided that an ordinance was necessary to address the specific development standards that stakeholders were concerned about. In November 2011, the County began hosting focus group sessions to solicit detailed feedback on renewable energy policy.

As such, the County has examined the concept of identifying specific areas within the County that would be suitable for renewable energy development and that would lead to the fewest impacts using regional habitat and land use mapping. While this concept was retracted, the proposed Zoning Code amendments address the issues of siting through zoning restrictions, setbacks, required findings and conditions of approval, requirements for discretionary review, and mitigation provided in the Draft EIR. These requirements and regulations are described in terms of wind energy projects in Response O1-2. Below is a description of the siting consideration and requirements for utility-scale ground-mounted solar energy facilities. (Avoidance and minimization measures for small-scale solar and utility-scale structure-mounted solar are addressed in Response S1-12).

Zoning Restrictions. Because the proposed Zoning Code amendments would apply to a large geographical area, site-specific land use restrictions, such as requiring utility-scale ground-mounted projects to be sited on fallow fields or on agricultural lands, are not considered feasible. Because the proposed Zoning Code amendments are County-wide, they would apply to a geographically and biologically diverse area with a wide variety of land uses. As such, optimal siting of future projects is more accurately and feasibly determined during the project planning phase of specific development projects. For these reasons, the proposed Zoning Code amendments use broader land use categories to regulate where these projects may be proposed at the County-wide scale. The proposed Zoning Code amendments prohibit utility-scale ground-mounted projects from the A-1, O-S, W, and residential zones and prohibit them from being developed within SEAs. As summarized in Table 10-1 and Table 10-2, the proposed Zoning Code amendments are more limiting that than existing Zoning Code provisions with respect to where utility-scale ground-mounted facilities can be located.

Setbacks. Utility-scale ground-mounted solar energy facilities would be required to be located a minimum of 30 feet from the property line in the agricultural zones in which such projects would be allowed (i.e., A-2 and A-2-H). For non-agricultural zones, setbacks would need to conform to the setback requirements of the base zone. Such facilities would also need to be setback from significant ridgelines. The highest

point of a utility-scale ground-mounted solar energy facility would be required 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.

Required Findings. For any solar energy project requiring discretionary approval, the following finding must be made in order for a Hearing Officer to approve such a project: "The proposed development is sited and designed and will be constructed in such a way to minimize significant impacts to the environment including impacts to birds and bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers."

Further CEQA Review. In addition to the above restrictions on where utility-scale ground-mounted solar energy projects can be developed in the unincorporated County, additional siting considerations would be included in the CEQA review and discretionary approval process for utility-scale ground-mounted solar energy projects developed pursuant to the proposed ordinance. Such considerations would take into account biological resources, as well as other environmental concerns.

Mitigation. Mitigation is provided in the Draft EIR to ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future solar energy projects that are subject to discretionary review (see MM BIO-1). This would include utility-scale ground-mounted solar energy facilities, some utility-scale structure-mounted solar energy facilities in the R-1 zone, and small-scale ground-mounted solar energy systems located in the O-S or W zones. MM BIO-1 provides recommendations for standard mitigation measures that can be applied to these future projects if significant impacts are identified during CEQA review. The following recommended measures are particularly relevant to solar energy projects:

- Establish buffers of a minimum of 100 feet between solar panels and the edge of existing lakes, reservoirs, wetlands, playas, and other water features.
- Establish buffers of a minimum of 100 feet between solar panels and the edge of existing lakes, reservoirs, wetlands, playas, and other water features.
- For significant impacts to sensitive species, natural communities, or ecological processes (like wildlife movement or hydrological processes) resulting from ground disturbance impacts associated with ground-mounted renewable energy facilities, compensatory mitigation would generally involve one or a combination of the following actions: On or off-site habitat preservation, habitat

restoration/enhancement, long-term habitat management activities, and/or species translocations.

- For impacts to federal or state-listed species from ground-mounted renewable energy facilities, incidental take authorization would be required from the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife.
- For impacts to jurisdictional wetlands and waters from ground-mounted renewable energy facilities, permits and/or approvals would be required from the appropriate regulatory agencies with jurisdiction over the wetlands and waters.
- For potential impacts to avian species related to reflection/refraction of light from solar projects (referred to as the "lake effect"), solar projects sited away from existing lakes, reservoirs, wetlands, playas, and other water features would have a reduced potential to attract waterfowl and other bird species and a reduced potential to impact these species from collision with panels; therefore, projects sited adjacent to existing lakes, reservoirs, wetlands, playas, and other water features or areas where bird use determined to be high and the risk of avian collision with panels is considered high should incorporate anti-reflective or low-glare solar panels or design the configuration of solar panels so that they do not mimic natural waterbodies (e.g., avoid large contiguous areas of solar panels; intersperse areas of panels with areas of no panels).

After application of MM BIO-1, if a future project would still have a potentially significant effect involving avian collision with panels, MM BIO-2 would be required, as stated in the Draft EIR. MM BIO-2 requires the preparation of a Bird Conservation Strategy for submittal and approval by the County of Los Angeles and the U.S. Fish and Wildlife Service. The Bird Conservation Strategy would be required to describe avoidance, minimization, monitoring, and/or compensatory mitigation measures that would offset the adverse effects of bird collision.

Alternative Site Analysis. If a project-specific EIR is required, alternative sites that would avoid or substantially lessen the significant effects of a project may be identified and analyzed as part of the alternatives analysis required by CEQA Guidelines Section 15126.6.

Existing Requirements. The existing Zoning Code does not contain regulations specific to utility-scale solar energy facilities. As such, the proposed Zoning Code amendments establish baseline standards where there currently are none. The intent of including provisions for utility-scale ground-mounted solar energy facilities in the Zoning Code is not to promote such facilities but to alert developers to the review system that they must follow and to the types of conditions that would be imposed.

The effects of utility-scale solar energy facilities mimicking water bodies are discussed in Section 4.4 of the Draft EIR. The recommendation to prohibit solar facilities that mimic water bodies will be included in the Final EIR for review and consideration by decision makers. It is noted that the proposed Zoning Code amendments would prohibit concentrated solar thermal collectors. However, as analyzed for both small-scale solar energy systems and utility-scale solar energy facilities under Criterion A and B of the biological impact analysis, reflection and refraction of light from solar panels and mirrors can appear as a water body and may act to attract birds and increase the risk of bird collision. This effect contributed to the determination of a potentially significant and unavoidable impact associated with solar projects. As described above, the EIR provides mitigation to address this effect (MM BIO-1 and MM BIO-2); however, it cannot be guaranteed on a project-specific level that the effects of a future project would be reduced to a less than significant level by these mitigation measures.

O1-11 This comment concludes the letter and states that the letter includes "important areas for additional improvement that constitute feasible mitigation measures under CEQA to reduce acknowledged significant biological impacts." The mitigation measures and/or revisions to the proposed Zoning Code amendments suggested in this letter are summarized as follows:

- Rigorous regulation for siting of all turbines.
- Prohibition of small-scale wind energy systems.
- Incorporation of mitigation measures adopted by the County of San Diego in its 2012 Wind Energy Ordinance.
- Require substantial compliance with the *Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development* **or** incorporate equivalent standards for rigorous initial site selection and require bird and bat studies as baseline data.
- Increased setback for significant ridgelines and an added provision for setbacks from other ridgelines that may be important for biological resources.
- Require the mowed area at the base of turbines to be covered with gravel to prevent regrowth of vegetation.
- Prohibit guy wires for small-scale wind energy systems.
- Require transmission lines that connect small-scale wind turbines to the grid to be undergrounded.

- Require small-scale wind energy systems that are not operable to be decommissioned and removed.
- Add standards for siting of utility-scale solar energy facilities.
- Prohibit solar facilities that mimic water bodies through reflection.

Responses to each of the above suggested revisions and/or mitigating measures are included in Responses O1-2 through O1-10. Section 4.4 of the Draft EIR identifies significant, unavoidable impacts to biological resources, as well as mitigation measures to address impacts. The mitigation measures proposed in the Draft EIR would reduce the impacts of the proposed project on biological resources; however, the analysis concluded that impacts would be significant and unavoidable. This conclusion was reached because it cannot feasibly be determined at this time on a project-specific level that the impacts of future projects developed across the geographically and biologically diverse unincorporated County would be reduced to a less than significant level through either the standards of the proposed Zoning Code amendments and/or through the mitigation provided in the Draft EIR. As discussed in Responses O1-2 through O1-10, the proposed Zoning Code amendments have undergone a number of revisions that address several of these recommendations. The measures identified in this letter that are not being incorporated will be provided to the decision makers for review and consideration. Additionally, all mitigation measures and/or revisions to the proposed Zoning Code amendments that are suggested in this letter apply to projects that would require further discretionary approval (wind energy projects and utility-scale ground-mounted solar energy facilities). As such, site-specific considerations, design features, and measures will be implemented on a project-by-project basis to further address potential effects to biological resources.

Comment Letter O2

From: Karen Cadavona <Karen.Cadavona@sce.com>
Sent: Tuesday, March 31, 2015 5:56 PM
To: Susan Tae; Jay Lee
Cc: Mark A 'Law' Rothenberg; David A Ford; Tony Barranda
Subject: SCE Comment on LA County Renewable Energy Ordinance
Attachments: LA_County_Renewable_Energy_Ordinance_March2015.pdf; SCE_LA_Co_Renewable_Energy_Ordinance_Nov2013.pdf

On behalf of Mark A. Rothenberg, SCE Senior Attorney:

Dear Ms. Tae:

Please find attached Southern California Edison's (SCE) second comment letter regarding the Los Angeles County Renewable Energy Ordinance, as well as the first comment letter from November 2013. As discussed with David Ford, SCE is requesting revision of the Ordinance to clarify that investor owned utilities under the California Public Utility Commission's jurisdiction are exempt from the requirements of the Ordinance. O2-1

Regards,
Karen Cadavona
Third Party Environmental Reviews
SCE, Local Public Affairs
2244 Walnut Grove Avenue, GO 1 Quad 4C
Rosemead, CA 91770
(626) 302-2481 office
Karen.cadavona@sce.com

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An EDISON INTERNATIONAL® Company

Mark A. Rothenberg
Senior Attorney
Real Properties and
Local Government Affairs
Mark.A.Rothenberg@sce.com

March 31, 2015

VIA EMAIL & US MAIL

Mr. Jay Lee
Department of Regional Planning
Los Angeles County
320 West Temple Street, 13th Floor
Los Angeles, California 90012

Re: Southern California Edison's Second Set of Comments/Proposed Ordinance Amending Title 22 of the Los Angeles Code/Establishment of Regulations for Small-Scale Solar Energy Systems

Dear Mr. Lee:

Southern California Edison ("SCE") appreciates the opportunity to provide the County with comments regarding the above captioned proposed ordinance (the "Ordinance"). SCE understands that the County has released a new iteration of the draft Ordinance. As you may know, SCE submitted comments to the County by letter dated November 26, 2013. For reasons unknown, although the comments are available on the County's web server, the comments do not appear to be listed as part of the DEIR analysis. It also appears that SCE's comments regarding preemption have not been addressed through appropriate revisions to the Ordinance and in staff comments. For example, Section 22.52.1655 of the proposed Ordinance requires the undergrounding of transmission lines. The Ordinance also contains multiple references to conditional use permits being required for solar generation. As discussed more fully in our prior correspondence, SCE solar facilities and transmission lines may not be regulated in this manner. *See* CPUC General Order 131D.

O2-1 Cont.

SCE respectfully submits that proposed Ordinance conflicts with the paramount jurisdiction of the California Public Utilities Commission and that the changes proposed by SCE would harmonize the proposed Ordinance with California law. SCE representatives will be in touch with your office to discuss these issues. In the interim, please do not hesitate to contact me should you have any questions or concerns.

Very truly yours,

Mark A. Rothenberg

P.O. Box 800 2244 Walnut Grove Ave. Rosemead, California 91770 (626) 302-6916 Fax (626) 302-6736

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Mark A. Rothenberg
Senior Attorney
Real Property, Local Government
Affairs & Licensing
Mark.Rothenberg@sce.com

November 26, 2013

VIA US MAIL

Ms. Thuy Hua
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, California 90012

Re: **Proposed Ordinance Establishing Baseline Standards for Renewable Energy Projects**

Dear Ms. Hua:

Thank you for providing Southern California Edison ("SCE") with a copy of the above captioned Ordinance (the "Ordinance"). The Ordinance provides a series of requirements that will assist the County in regulating the siting of renewable energy projects. The purpose of this letter is to advise the County as to our concerns regarding the Ordinance and to request clarifications that will harmonize the Ordinance with California law.

The design of SCE's generating stations, substations, and transmission lines (including, but not limited to interconnection facilities) are regulated by Order of the California Public Utilities Commission ("CPUC"). Unfortunately, the Ordinance creates regulations (inclusive of design requirements) that either expressly or implicitly conflict with the CPUC's jurisdiction. For example, Section 22.52.1620 of the Ordinance would require that SCE obtain discretionary approvals from the County prior to developing a solar facility. Pursuant to CPUC General Order 131D, SCE is required to consult with jurisdictions. However, the CPUC has clarified that SCE is not required to seek discretionary approvals such as conditional use permits. Accordingly, the County would be expressly preempted from enforcing these requirements against SCE installations. *See San Diego Gas & Electric Co. v. City of Carlsbad*, 64 Cal. App. 4th 785 (Cal. App. 4th Dist. 1998) (City preempted from enforcing requirements where CPUC has either expressly or implicitly entered the field of regulation). Similarly, Section 22.52.160(H) of the Ordinance establishes undergrounding requirements for transmission lines. The undergrounding of SCE's transmission lines is governed under SCE Tariff Rule 20. A Tariff Rule is a rule of service that is approved by the CPUC. *See City of Anaheim v. Pacific Bell Co.*, 119 Cal. App. 4th, 838 (Cal. App. 4th 2004) (undergrounding tariff rule constituted CPUC's entry into field of regulation for utility undergrounding).

It is not clear to SCE whether the County intended to regulate renewable generating facilities owned and operated by SCE or our interconnection facilities (whether or not such facilities serve privately owned facilities). Accordingly, SCE respectfully requests that the County clarify that SCE is not subject to the requirements of the Ordinance. Therefore, SCE proposes the following text be added to Section 22.52.1610(B).

O2-1 Cont.

P.O. Box 800 2244 Walnut Grove Ave. Rosemead, California 91770 626-302-6916 Fax (626) 302-1926

B. Exemption. The provisions of this part 15 shall not apply to any small scale renewable energy system, utility-scale renewable energy facility, or temporary meteorological tower approved prior to the effective date of the ordinance establishing this part 15. In addition, the provisions of this part 15 shall not apply to: (i) systems (inclusive of small-scale renewable energy systems, utility-scale renewable energy facilities, or wind towers) owned or operated by publicly regulated utilities; (ii) facilities that are subject to regulation by the California Public Utilities Commission; (iii) facilities that interconnect small-scale renewable energy systems, utility-scale renewable energy systems, or wind towers, (including, but not limited to transmission lines or substations owned or operated by a publicly regulated utility); or (iv) any other facility or equipment where the County is otherwise preempted from exercising its jurisdiction.

O2-1 Cont.

SCE respectfully submits that the inclusion of the foregoing clarification will eliminate conflicts in the future and will ensure that the proposed Ordinance is compliant with California law. Thank you in advance for your assistance in this matter and for considering SCE's concerns.

Sincerely,

Mark A. Rothenberg

MR:yl:LA County Dept of Reg Pln.docx

Response to Comment Letter O2

Southern California Edison
Mark A. Rothenberg, Senior Attorney
March 31, 2015

O2-1 This comment consists of a request for a revision to the proposed Zoning Code amendments and does not pertain to the environmental analysis in the Draft EIR.

In response to this comment, the County has added clarification to the proposed Zoning Code amendments stating that the provisions of Part 15 do not apply where preempted by regulation under the jurisdiction of the California Public Utilities Commission or preempted by other applicable law.

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Comment Letter O3

Audubon CALIFORNIA

San Fernando Valley Audubon Society
For Nature Education and the Conservation of Wildlife

April 6, 2015

Jay Lee
Department of Regional Planning
320 West Temple St, Room 1354
Los Angeles, CA 90012
Fax: (213) 626-0434
Email: jalee@planning.lacounty.gov

Dear Mr. Lee:

On behalf of Audubon California and San Fernando Valley Audubon Society we thank you for the opportunity to comment on the DEIR for the Draft Renewable Energy Ordinance (hereinafter referred to as "the document") for Los Angeles County.

With over 150,000 members and supporters Audubon California is the state office of National Audubon Society. Now in its second century, Audubon connects people with birds, nature and the environment that supports us all. Our national network of community-based nature centers, chapters, scientific, education, and advocacy programs engages millions of people from all walks of life in conservation action to protect and restore the natural world.

San Fernando Valley Audubon's mission is to promote the conservation of resources, to preserve and enhance the natural habitat within our territory, to increase the public's and our awareness and appreciation of bird life and the natural environment and to create a social environment that encourages individual knowledge, development, and participation.

Audubon California and San Fernando Valley Audubon support the reduction of greenhouse gas emissions of the energy sector, the primary source of greenhouse gases that cause global warming, through construction and operation of renewable energy such as wind, solar and geothermal - as long as projects are sited properly to avoid, minimize and, as a last resort, mitigate effectively for the impacts on birds and other wildlife.

National Audubon Society has recognized the 326,295 acres of the Antelope Valley of Kern and Los Angeles Counties as a globally significant *Important Bird Area* as the Lead Agency has noted in the DEIR. (National Audubon Society, Important Bird areas in the U.S. available http://netapp.audubon.org/iba/Reports/270). The Important Bird Areas

O3-1

Program, administered by the National Audubon Society in the United States, is part of an international effort to designate and support conservation efforts at sites that provide significant breeding, wintering, or migratory habitats for specific species or concentrations of birds. Sites are designated based on specific and standardized criteria and supporting data.

Los Angeles Audubon commented previously on the Draft Ordinance itself, and those comments are provided by reference with these comments, as the issues raised were not addressed in the current draft Renewable Energy Ordinance posted on the Los Angeles County Planning website as the "third draft of the ordinance".

O3-1 Cont.

Our comments are as follows:

General comments

1. Generally, we support the draft DEIR of the Renewable Energy Ordinance in the attempts to propose Zoning Code Amendments that will direct the construction of renewable energy in Los Angeles County.

However, the document is not adequate to serve as a programmatic document that may exempt utility-scale solar or small-scale and utility-scale wind projects from full CEQA analysis, nor allow for a modified or lesser CEQA process, nor allow future CEQA documents to tier off of the cumulative effects or other analyses in order to provide a Conditional Use Permit with less than full CEQA review, or to provide a Mitigated Negative Declaration for utility-scale solar or wind projects.

Recommendation: Clarify in the document and in the Zone Amendments that ALL utility-scale solar and wind projects will undergo full CEQA review in order to obtain a Conditional Use Permit.

O3-2

2. We support the exclusion of renewable energy projects in SEAs.

Recommendation: Identify the SEAs as Advanced Mitigation Areas for conservation opportunities as part of the SEA program with a general analysis from currently available data of the biological resources and open space values in the SEAs. Current compensatory mitigation measure compliance can often be piecemeal and unconnected, and identifying biological resources on SEAs as mitigation lands that are suitable to mitigate for impacts on species and habitat *in advance* to aid developers in mitigating effectively would be a progressive step in conservation of biological resources and open space, and expedite the permitting of renewable energy projects, by Los Angeles County.

O3-3

3. In impact assessment, the preferred hierarchy is avoid, minimize, and if the impact cannot be avoided or minimized, then mitigate effectively for the impact.

This should be emphasized throughout the document where relevant, especially when impacts are significant. Currently the document discussion of impacts relies on

O3-4

compensatory mitigation primarily and often solely. Both California Energy Commission and California Department of Fish & Wildlife Wind Energy guidelines and Federal Wind Energy Guidelines discuss the abandonment of a wind project with high risk to birds or bats as a successful measure to avoid those impacts.

O3-4 Cont.

4. The analysis of direct and indirect effects is inadequate.

4.4-28 describes effects from collision of birds with panels without calling these effects "direct" and identifies "vehicle collisions, spread of disease and wildlife behavioral avoidance" as potential "indirect" effects. These are actually direct effects and should be described as such.

O3-5

"Small wind turbines are generally not tall enough to be within migratory wildlife flight paths."

Please site the reference for this statement or remove it.

On the contrary, migratory birds may fly through the rotor swept area of small wind turbines. *Most songbirds, waterfowl, shorebirds, herons, and egrets migrate at night (Kerlinger and Moore, 1989). Nocturnal migrants generally take off after sunset, ascend to their cruising altitude between 300 and 2,000 feet (90–610 meters), and return to land before sunrise (Kerlinger, 1995). For most of their flight, songbirds and other nocturnal migrants are above the reach of wind turbines, but they pass through the altitudinal range of wind turbines during ascents and descents and may also fly closer to the ground during inclement weather or when negotiating mountain passes (Able, 1970; Richardson, 2000).*

Recommendation: Small wind turbines as well as utility-scale wind turbines should be required to conduct protocol-level migratory bird studies to determine if there is an impact to migratory birds that may ascend or descend to "stopovers," (areas with water, resources or vegetation) and how significant that impact may be, as per CEC and DFW guidelines.

O3-6

5. Ridgelines

a. The definition of "significant ridgelines" is inadequate, and this does not reduce the impacts of wind turbines on raptors to less than significant.

The document defines and maps "significant ridgelines" as "ridgelines which are highly visible and dominate the landscape." (DRAFT Renewable Energy Ordinance page 36 of 79) and suggests setbacks for wind turbines from these ridgelines.

Ridges are known to concentrate bird and bat movements. (2007, California Energy Commission & California Department of Fish & Wildlife, California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development). Raptors are especially vulnerable to wind turbines sited on ridges. Strickland et al (2001) concluded

O3-7

3

that wind turbines located away from the edge of the ridge at Foote Creek Rim, Wyoming, would result in lower raptor fatality rates than turbines located immediately adjacent to the edge. Smallwood and Neher (2004) had similar finds in that they determined that raptors fly disproportionately more often on the prevailing windward aspects of slopes. (2007, California Energy Commission & California Department of Fish & Wildlife, California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development). The ordinance should use the best available science to determine a setback from a ridge for a wind energy project as well as the setback for windward slopes.

That setback should be a minimum of 500 feet for both utility-scale and small-scale wind energy turbines.

O3-7 Cont.

6. Confusion in the document.

a. The document confuses "utility-scale ground-mounted solar energy facilities and "utility-scale structure-mounted solar energy facilities" as on Cumulative Effects page 5-15, paragraph 3. The document should be checked thoroughly in order not to imply that utility-scale ground-mounted solar energy facilities might require Minor CUP discretionary process, or the document contradicts itself.

O3-8

b. The Draft Renewable Energy Ordinance of December 2014 says it is SUBJECT TO CHANGE but the DEIR does not address nor cannot analyze the impacts of an ordinance that is subject to change.

O3-9

c. Inclusion of signs, telephone repeater stations, townhouses, water reservoirs, dams, treatment plants, gaging stations, pump stations, wells and tanks, tasting rooms, tattoo parlors, etc. in the renewable energy ordinance is confusing and should be analyzed in a separate DEIR if the Lead Agency is proposing any changes to the regulation of these uses, or if there are changes to any of the terms and conditions of these uses. Additionally, inclusion of these other uses do not conform to the project description (DEIR, Chapter 3) and therefore make the CEQA document inadequate and the project poorly described, and does not meet the Project Objectives described in the document.

Recommendation: If the Lead Agency is providing revised versions of current General Plan or describing zoning uses, Lead Agency should provide those ordinances or zoning use descriptions as they currently exist, with redlined additions of the renewable energy uses that will be included in each of those zones, rather than redlining the renewable energy ordinance to include other uses that are not renewable energy uses and which may be a modification of current zoning uses.

O3-10

We make the following comments by species that we have identified as focal species for the Antelope Valley.

1. The analysis of the impact of the project on Swainson's hawk is inadequate.

There is no mention of the survey protocols or mitigation measures for loss of nesting or foraging habitat for Swainson's hawk in the Antelope Valley as this population is considered unique. Please incorporate and refer to **Swainson's Hawk Survey Protocols,**

O3-11

4

Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California, State of California California Energy Commission and Department of Fish and Game, June 2, 2010. (and attached herewith).

Recommendation: Zone Amendments for all utility-scale and small-scale renewable energy projects should incorporate by reference these survey protocols and mitigation measures in this document and all future updates that may be posted on the website https://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html or in consultation with the California Department of Fish & Wildlife.

O3-11 Cont.

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2. Tricolored Blackbird

Comment: Please update the status of this species to state endangered. Please provide a process whereby the list of threatened, endangered, or sensitive species will be updated in the ordinance.

O3-12

3. Golden Eagle

a. In 4.4-32 the document states "Utility-scale ground-mounted wind energy facilities shall not be constructed closer than 4,000 feet to a known golden eagle nest site."

The current protocol recommended by the US Fish & Wildlife Service in the draft document for the DRECP Golden eagle permit is:

> Covered Activities (renewable energy development and transmission) will not be sited or constructed within 1-mile of any active or alternative golden eagle nest within an active golden eagle territory." (DRECP draft DEIR/DEIS, II.3-68, Preferred Alternative, August 2014).

Recommendation: Revise Zone Amendments for all forms of renewable energy and transmission to include this 1-mile protocol. This 1-mile protocol appears in the draft Renewable Energy Ordinance that the document is analyzing (DRAFT---Renewable Energy Ordinance – December 2014 –DRAFT SUBJECT TO CHANGE).

O3-13

b. The document should incorporate by reference the protocols for Golden eagle surveys and avoidance measures: **Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations, Page et al, U.S. Fish and Wildlife Service.**

Recommendation: Require survey protocols and avoidance measures for both utility-scale wind and solar projects to conform to this document or to updates on the website and all future updates that may be posted on the website https://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html or in consultation with U.S. Fish & Wildlife Service on an Eagle permit application.

O3-14

5

4. Burrowing owl

a. The document should incorporate by reference the **Staff Report on Burrowing Owl Mitigation, State of California Natural Resources Agency Department of Fish and Game March 7, 2012**, or any other documents or updates referring to survey protocol or avoidance, minimization and mitigation measures for sensitive species posted on the website https://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html or in consultation with the California Department of Fish & Wildlife. O3-15

5. Fully Protected Species

a. 4.4-8 The document does not mention protected or fully-protected species for which take permits may not be available, or for which take permits might be available only in an NCCP. O3-16

6. Federal and/or State-listed Species in the Antelope Valley

a. 4.4-52 Table 4.4-3 Federal and/or State-listed Species in Antelope Valley should be revised to include Tricolored Blackbird (state endangered) and Mountain plover (candidate for listing). Protected and fully protected species should be listed as well such as Golden eagle (Bald and Golden Eagle Protection Act) and White-tailed kite (Fully protected). Western snowy plover in Antelope Valley would not be federally or state listed, as only the coastal population is threatened. O3-17

Sincerely,

Garry George
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323-933-6660 p

Dave Weeshoff
Conservation Chair
SAN FERNANDO VALLEY AUDUBON SOCIETY
P.O. Box 7769 Van Nuys, CA 91409
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Enc:

- June 4, 2014 Los Angeles Audubon comments on draft Renewable Energy Ordinance.
- Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California, State of California California Energy Commission and Department of Fish and Game, June 2, 2010.
- Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations, Page et al, U.S. Fish and Wildlife Service.
- Staff Report on Burrowing Owl Mitigation, State of California Natural Resources Agency Department of Fish and Game March 7, 2012

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Response to Comment Letter O3

Audubon California / San Fernando Valley Audubon Society
Garry George, Renewable Energy Director and Dave Weeshoff, Conservation Chair
April 6, 2015

O3-1 This comment is introductory in nature and consists of a description of Audubon California and the San Fernando Valley Audubon Society. The attachments referenced in this comment have been reviewed and do not introduce any new issues related to the adequacy of the environmental analysis in the EIR. See Responses S1-8 for information regarding temporary MET towers and bird attractors and see Response O1-2 regarding ridgeline setbacks and other minimization and avoidance measures that have been incorporated into the proposed Zoning Code amendments to address the potential effects of wind energy projects.

O3-2 The comment states general support for the project but states that the EIR is not adequate to serve as a programmatic document that may exempt future projects developed pursuant to the proposed Zoning Code amendments from full CEQA analysis or that may allow the CEQA analysis of such projects to tier off the analysis in this EIR.

Refer to Section 10.1 of this chapter for information about programmatic CEQA analysis and for a description of the CEQA review that future projects would undergo. Pursuant to CEQA Guidelines Section 15168, this EIR analyzes projects that would be subject to further discretionary review at the programmatic level. As stated in Section 10.1, site-specific environmental documents prepared for future "second tier" projects would focus on issues specific to the individual project being implemented and would rely on the information in this EIR as appropriate to avoid unnecessary or duplicative analysis. The CEQA analysis for future projects would be conducted in accordance with CEQA Guidelines Section 15168(c), Use with Later Activities. This section requires the following: "Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared. (1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration; (2) If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required; (3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program…"

Pursuant to CEQA Guidelines Section 15168(c), future projects subject to discretionary review would be evaluated to determine whether this EIR addresses the project's effects. If it is determined that the project could potentially result in additional effects not examined in this EIR, a new Initial Study would be prepared, and the appropriate level of CEQA analysis would be determined based on that Initial Study, not based on this EIR.

Furthermore, pursuant to CEQA Guidelines Section 15168(c)(3), projects subject to further discretionary review would be required to incorporate feasible mitigation measures developed in this EIR. This EIR provides numerous feasible mitigation measures that would apply to projects subject to further discretionary review, including MM BIO-1 and MM BIO-2, which would ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future utility-scale ground-mounted renewable energy facilities, utility-scale structure-mounted wind energy facilities, small-scale wind energy systems, and temporary MET towers. Regarding utility-scale structure-mounted solar energy facilities, such projects would not typically require a Minor CUP or CUP. Pursuant to CEQA, solar installations on rooftops of existing buildings may be exempt from CEQA under certain conditions as stated in California Public Resources Code Section 21080.35. As such, many of these projects would already be exempt from CEQA, whether or not the proposed Zoning Code amendments are in place. Furthermore, requiring a Minor CUP or CUP and associated CEQA review for utility-scale structure-mounted solar energy facilities would be inconsistent with one of the objectives of the proposed project, which is to "Encourage the development of small-scale and structure-mounted renewable energy facilities through a streamlined and standardized permit review process."

O3-3 The comment supports the exclusion of renewable energy projects in SEAs. The comment further recommends that the SEAs be identified as Advance Mitigation Areas as part of the SEA program for conservation opportunities to address potential biological effects of future renewable energy projects. This recommendation will be provided in the Final EIR for consideration by the County for inclusion as part of the SEA program.

O3-4 The comment urges the use of mitigation hierarchy that emphasizes avoidance first, then minimization, and lastly mitigation. The comment expresses concern that the EIR relied primarily on mitigation without first addressing avoidance and minimization.

For the project-level components, avoidance and minimization measures were incorporated into the standards for those projects as part of the proposed Zoning Code amendments. These measures consist of setbacks and size limitations, which

limit ground disturbance associated with small-scale ground-mounted solar energy projects. For information about avoidance and minimization measures that were incorporated to reduce the effects of small-scale ground-mounted solar energy systems, refer to Response S1-12. Additionally, in response to comments received on the Draft EIR, one mitigation measure was added to address potential effects of small-scale ground-mounted solar energy systems. Per CEQA Guidelines Section 15088.5, this new measure does not constitute a significant new change resulting in a need to recirculate the EIR.

For program-level components, avoidance and minimization measures were incorporated into the standards, findings, and conditions of approval for those projects in the proposed Zoning Code amendments. Additional site-specific avoidance, minimization, and mitigation measures would be identified on a project-by-project basis during further CEQA review if it is determined that a project would have a significant effect after compliance with the standards and conditions of approval in the proposed Zoning Code amendments. For information about the avoidance and minimization measures incorporated into the proposed project for wind energy projects and utility-scale ground-mounted solar energy projects, refer to Responses O1-2 and O1-10, respectively.

The County reviewed the *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development* (*Guidelines*) while preparing the proposed Zoning Code amendments, and the proposed Zoning Code amendments incorporate elements from the *Guidelines* to establish provisions to protect birds and bats that can be feasibly implemented at the County-wide scale. While Section 4.4.4 of the EIR identified that wind energy projects could result in a potentially significant effect to special-status species, site-specific effects involving particular species and the degree to which those species would be identified on a project-by-project basis. This is because, as stated in Response O1-4, it is not possible at the programmatic level to quantify the potential effects of wind turbines on birds and bats at the County-wide scale or to specify the required mitigation measures for those effects due to the highly site-specific and project-specific nature of these impacts. The number of turbines, the height of turbines, the spacing of turbines, the relationship of the turbines to landscape features, the behavior and abundance of resident bird and bat species in and around the site, the prevalence of migrating bird and bat species through the area, the habitat around the turbines, and the prey/foraging potential around the turbines are some of the factors that influence the risk of impact that could result from wind turbines. If a specific project is determined to pose a particularly high risk to birds and bats, measures in addition to the bird and bat protection provisions set forth in

the proposed Zoning Code amendments may be required. Such measures could be drawn from the *Guidelines*. The recommendation add a requirement to the Zoning Code for the abandonment of wind energy projects with high risk to birds and bats will be included in the Final EIR for review and consideration by decision makers.

O3-5 The comment expresses concern that certain effects, such as vehicle collisions, disease, and behavioral avoidance, were identified as indirect impacts instead of direct impacts.

CEQA Guidelines Section 15358(a)(2) defines indirect effects as follows: "Indirect or secondary effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems." In contrast, direct effects are defined in CEQA Guidelines Section 15358(a)(1) as "Direct or primary effects which are caused by the project and occur at the same time and place."

The effects identified by the commenter (vehicle collisions, disease, and behavioral avoidance) were identified in the EIR as indirect effects resulting from increased human presence. In contrast to ground disturbance, such indirect effects could extend or occur in off-site areas, could occur at a later time (such as spread of disease), and would have ecosystem-related effects, as opposed to effects on only habitat present on the project site itself. The EIR examined both direct and indirect effects and concluded that impacts related to Criterion A and Criterion B would be potentially significant. Recategorizing the types of effects that were determined to be direct and indirect would not alter the significance conclusions of the EIR or the mitigation that was provided.

O3-6 The comment disagrees with the EIR statement that small wind turbines are generally not tall enough to be within migratory wildlife flight paths and requests that the statement be cited or removed. Additionally, the comment states that protocol-level migratory bird studies should be conducted for small-scale and utility-scale wind projects to assess potential impacts.

As stated in the biological resource impact analysis under Criterion A and B in the EIR as it relates to utility-scale wind energy projects: "In general, most birds migrate at an altitude greater than 500 feet above ground level (Smithsonian Migratory Bird Center 2014; Lincoln et al. 1998), which is higher than large wind turbines and associated transmission infrastructure; however the migratory altitude varies

depending on the species, the time of day/year, weather conditions, and other factors." Although this information is provided in the impacts analysis of utility-scale wind energy projects, it also provides support for the analysis of the impacts of small-scale wind energy systems. The EIR acknowledges that this is a generalization about migratory altitudes, and that flight altitudes can vary depending upon the factors listed and other factors such as ascending and descending locations. The impact analysis identifies the potential for impacts to migratory birds from small-scale wind energy systems and utility-scale wind energy facilities, which contributed to the determination that such systems and facilities would result in potentially significant and unavoidable impacts.

For a discussion of the minimization and avoidance measures that were incorporated into the proposed Zoning Code amendments for future wind energy systems, see Response O1-2. In addition to the measures that were incorporated into the Zoning Code amendments, mitigation is provided in the EIR to ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future wind energy projects (see MM BIO-1). If future analysis under CEQA identifies potentially significant effects, further mitigation may be required, which could include migratory bird studies as necessary. The recommendation provided by the commenter will be included in the Final EIR for review and consideration by decision makers.

O3-7 The comment expresses concern that the use and definition of "significant ridgeline" in the ordinance is too limited and would not be adequate to protect ridges that are known to be used by raptors and other avian movement. The proposed Zoning Code amendments have been revised subsequent to the release of the Draft EIR. Under these revisions, the existing ridgeline protection measures for small-scale wind energy systems would remain in place and would be applied to utility-scale structure-mounted wind energy facilities. See Response O1-2, which describes the existing ridgeline protection measure for small-scale wind energy systems.

As described in Response O1-2, ridgeline protection measures for small-scale wind energy systems cannot be made more restrictive than what is currently required in Part 15 (see the Preface of this Final EIR for details; see also Government Code Section 65893 et seq.). The revisions to the proposed Zoning Code amendments also include a change to the proposed provisions for utility-scale ground-mounted wind energy facilities. See Response S1-10 and O1-2, which detail these revisions. These revisions account for ridgelines that are not protected as scenic resources and extend the horizontal setback for significant ridgelines. . The impact analysis in the EIR acknowledges the potential impacts from wind energy projects on migratory birds and wildlife movement along ridgelines and other landscape features. By

incorporating setbacks from ridgelines in the proposed Zoning Code amendment, the potential for impacts to bird movement would be reduced; however, the impact under Criterion A and B would remain potentially significant and unavoidable. Mitigation is provided in the EIR to ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future wind energy projects (see MM BIO-1). If a significant impact is identified during project-specific CEQA review for future projects, further mitigation may be required, which could include additional setbacks. Response O1-2 contains more details about siting considerations for future wind energy projects developed pursuant to the proposed Zoning Code amendments.

O3-8 The comment identifies a perceived discrepancy in the document under Cumulative Effects. This Final EIR contains revisions and clarifications that have been made to the Draft EIR, including revisions to the passage identified by the commenter. As indicated in the revised sentence, utility-scale ground-mounted solar energy facilities would be subject to a CUP.

O3-9 The proposed Zoning Code amendments that were analyzed in the Draft EIR are dated December 2014 and were released in February 2015 for public review and comment as the third draft of the proposed Zoning Code amendments. The Draft EIR analyzes the third draft of the proposed Zoning Code amendments and reflects provisions that were modified or added through the February 2015 release date of both the Draft EIR and the third draft of the proposed Zoning Code amendments (both documents were released concurrently). The Draft EIR does not analyze a previous version of the proposed Zoning Code amendments. Minor revisions that were made to the proposed Zoning Code amendments subsequent to the release of the Draft EIR and the third draft of the proposed Zoning Code amendments are summarized in the Preface of this Final EIR. Additionally, the Draft EIR has been revised to reflect these changes. Changes to the Draft EIR are shown in strikeout/underline text throughout the Final EIR. As stated in the Preface, none of these revisions constitute a significant new change resulting in a need to recirculate the EIR, per CEQA Guidelines Section 15088.5.

O3-10 The elements listed in this comment are part of the existing Zoning Code, and no changes are currently being proposed as part of this project involving these uses. (See Appendix A of this Final EIR, which depicts all changes to the existing Zoning Code in strikeout and underline text).

O3-11 The comment expresses concern that the impact analysis for Swainson's hawk is inadequate and should refer to the survey protocols and mitigation measures developed by the California Department of Fish and Wildlife.

Swainson's hawk is discussed in Section 4.4.1 and Section 4.4.4 of the EIR. Additionally, Section 4.4.1 of the EIR has been updated to incorporate a discussion of the *Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California.* Per CEQA Guidelines Section 15088.5, this addition does not constitute a significant new change resulting in a need to recirculate the EIR.

The *Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California* provides site-specific prototypical mitigation measures and provides specifications for how Swainson's hawk surveys should be conducted on the site of a future renewable energy project. The recommendation to incorporate this document by reference in the proposed Zoning Code amendments will be included in the Final EIR for review and consideration by decision makers.

The proposed Zoning Code amendments consist of baseline development standards for renewable energy projects and are not intended to fully mitigate all potentially significant effects of future projects. While the proposed Zoning Code amendments provide avoidance and minimization measures through development standards, required findings, and conditions of approval (see Response S1-12, O1-2, and O1-10), additional measures may be applied on a project-by-project basis for future projects subject to discretionary approval in order to address site-specific needs, such as the need for Swainson's hawk surveys and mitigation measures. If the need for a survey is identified, that survey would be required by CDFW to be conducted in compliance with the most recent survey protocols. The *Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California* provides site-specific protocols for surveys and mitigation measures to address any impacts that are identified, such protocols and mitigation would be applied as needed at the project-specific level. The proposed Zoning Code amendments are Countywide and do not just encompass the Antelope Valley; as such, site-specific measures will need to be applied on a project-by-project basis.

O3-12 The comment states that the status of tricolored blackbird should be updated to state endangered to reflect recent listing and that the ordinance should have a process for updating the species' status into the future.

Section 4.4 of the EIR states that tricolored blackbird is a state endangered species. The status of species is not part of the ordinance; therefore, a process for updating

species status in the ordinance is not necessary. Such species will be protected by the California Endangered Species Act.

O3-13 The comment expressed concern that Section 4.4 of the EIR refers to a 4,000-foot setback from known golden eagle nest sites as opposed to the 1-mile buffer used in the draft Desert Renewable Energy Conservation Plan (DRECP; September 2014) and as opposed to the 1-mile buffer requirement stated in the draft ordinance from December 2014.

The reference to the 4,000-foot golden eagle nest setback in Section 4.4 was an error. Section 4.4 of the Final EIR has been revised to reflect the 1-mile setback requirement from known golden eagle nest sites as per the proposed Zoning Code amendments.

O3-14 The comment states that utility-scale renewable energy projects should reference various golden eagle survey protocols and avoidance measures from the USFWS and CDFW, including *the Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations.*

Golden eagles are discussed in Section 4.4.1, Section 4.4.2, and Section 4.4.4 of the EIR. Additionally, Section 4.4.1 of the EIR has been updated to incorporate a discussion of the *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations.* Per CEQA Guidelines Section 15088.5, this addition does not constitute a significant new change resulting in a need to recirculate the EIR.

The *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* identifies recommended survey protocol for golden eagles that can be employed to determine and evaluate the potential for golden eagles to be using a habitat area.

The recommendation to incorporate this document by reference in the proposed Zoning Code amendments will be included in the Final EIR for review and consideration by decision makers. The proposed Zoning Code amendments consist of baseline development standards for renewable energy projects and are not intended to fully mitigate all potentially significant effects of future projects. While the proposed Zoning Code amendments provide avoidance and minimization measures through development standards, required findings, and conditions of approval (see Response S1-12, O1-2, and O1-10), additional measures may be applied on a project-by-project basis for future projects subject to discretionary approval in order to address site-specific needs, such as the need for golden eagle surveys and mitigation measures. If the need for a survey is identified, that survey would be required by CDFW to be

conducted in compliance with the most recent survey protocols. The *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* provides site-specific protocols for surveys to identify the presence of golden eagles and the extent to which the species is occupying a given area. The proposed Zoning Code amendments are Countywide; as such, site-specific measures will need to applied on a project-by-project basis.

O3-15 The comment states that CDFW guidelines regarding burrowing owl mitigation should be referenced in the document.

Burrowing owl is discussed in Section 4.4.1 and Section 4.4.4 of the EIR. Additionally, Section 4.4.1 of the EIR has been updated to incorporate a discussion of the *Staff Report on Burrowing Owl Mitigation.* Per CEQA Guidelines Section 15088.5, this addition does not constitute a significant new change resulting in a need to recirculate the EIR.

The recommendation to incorporate this document by reference in the proposed Zoning Code amendments will be included in the Final EIR for review and consideration by decision makers. The proposed Zoning Code amendments consist of baseline development standards for renewable energy projects and are not intended to fully mitigate all potentially significant effects of future projects. While the proposed Zoning Code amendments provide avoidance and minimization measures through development standards, required findings, and conditions of approval (see Response S1-12, O1-2, and O1-10), additional measures may be applied on a project-by-project basis for future projects subject to discretionary approval in order to address site-specific needs, such as the need for burrowing owl surveys and mitigation measures. The *Staff Report on Burrowing Owl Mitigation* document provides information for how to identify whether potential impacts to burrowing owl will occur on a project site and site-specific mitigation measures that can be implemented if impacts are identified. Such protocols and mitigation would be applied as needed at the project-specific level. The proposed Zoning Code amendments are Countywide; as such, site-specific measures will need to be applied on a project-by-project basis.

O3-16 The comment states that fully protected species are not mentioned in the document. Under Relevant Plans, Policies, and Ordinances (Section 4.4.2), the special legislation protecting California fully protected species is referenced. As discussed, the California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 5050 lists protected amphibians and reptiles. Section 3515 prohibits take of fully protected fish species. Eggs and nests of all birds are protected under Section 3503, nesting birds (including raptors and passerines)

under Sections 3503.5 and 3513, birds of prey under Section 3503.5, and fully protected birds under Section 3511. Migratory non-game birds are protected under Section 3800. Mammals are protected under Section 4700.

O3-17 The comment states that Table 4.4-2 and 4.4-3 should include tricolored blackbird and mountain plover as occurring in the Antelope Valley and that the list should include fully protected species such as golden eagle and white-tailed kite. Based on this comment, the referenced table has been updated appropriately. Per CEQA Guidelines Section 15088.5, this addition does not constitute a significant new change resulting in a need to recirculate the EIR. However, as stated in Section 4.4.1 of the Draft EIR, Table 4.4-3 provides an overview of special-status wildlife species known to occur in each of the County's Planning Areas. This table is not intended to contain a comprehensive list of all special-status species, and this intent is clearly stated in the Draft EIR.

Comment Letter O4

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RIVERSIDE • VERNON • IMPERIAL IRRIGATION DISTRICT

April 6, 2015 I Submitted Electronically

Mr. Jay Lee
Department of Regional Planning
County of Los Angeles
320 West Temple Street, 13th Floor
Los Angeles, CA 90012

Re: SCPPA Comments on the Draft Environmental Impact Report (Draft EIR) for the Proposed Los Angeles County Renewable Energy Ordinance

Thank you for the opportunity to provide comments on Los Angeles County's Draft EIR and the third draft of the "Renewable Energy Ordinance" that would impact 2,583 square miles of unincorporated portions of the County. While we greatly appreciate the County's goal to help facilitate the development of renewable energy within the County to help meet the goals of the Global Warming Solutions Act of 2006 (AB 32) while providing baseline standards for solar and wind energy projects, we believe that the revised proposal may still ***deter renewables development in the County***.

O4-1

The Southern California Public Power Authority (SCPPA) is a joint powers authority consisting of eleven municipal utilities and one irrigation district. Our Members deliver electricity to approximately two million customers over a 7,000 square mile area, with a total population of 4.8 million people. Seven SCPPA municipal utilities are located in Los Angeles County.

SCPPA Members appreciate the County's desire to provide formal definitions, procedures, and standards for review and permitting of solar and wind energy systems and facilities and temporary meteorological towers. However, we believe that the Draft EIR fails to adequately assess the potential project feasibility impacts of implementing the proposed Renewable Energy Ordinance. The requirement that on-site and off-site transmission lines "shall be placed underground to the satisfaction of the Department and Department of Public Works, except where above-ground crossings are otherwise required (such as over the California Aqueduct)" is particularly problematic. The County has not adequately assessed the operational nor the physical limitations associated with such a requirement that would be placed upon projects that are fundamentally developed to help meet environmental goals. Such a requirement would make it infeasible (if not impossible) to site utility-scale solar and wind projects throughout important portions of potentially ideal space to help utilities meet the County's energy needs in an environmentally sustainable and cost-effective manner close to constituent populations.

Publicly-owned utilities are heavily regulated at the local, regional, state, and federal levels towards procuring renewable energy resources and/or complying with aggressive emissions reduction goals. For example, the California Energy Commission oversees implementation of the State's ambitious 33% by the end of 2020 Renewables Portfolio Standard (RPS) goal. The law directed the Energy Commission to adopt new regulations specifying RPS enforcement procedures for publicly-owned utilities, and to certify and verify eligible renewable resources and to monitor compliance. SCPPA Members are working diligently to implement a wide range of mandatory programs towards reducing greenhouse gases to meet California's RPS and AB 32 goals, and are on target to meet or exceed the requirements. California will also be required to meet new federal Clean Air Act standards to reduce power plant emissions under the pending Section 111(d) standards.

O4-2

SCPPA remains concerned that the proposed revised ordinance will *deter* renewable project investments in the County. An Ordinance that would add unduly burdensome requirements would likely make many future renewables projects so expensive that very few, if any, prospective buyers would be willing to purchase the power. Dramatically increasing the cost of renewables, especially for SCPPA Members interested in affordable local renewables projects, would have a detrimental impact on ratepayers, small- and medium-sized renewables developers, and do little to further air quality improvements.

SCPPA urges the County to give careful consideration to the long-term consequences of such an ordinance, particularly given the rapidly-growing development of renewable energy projects throughout California as the State pursues development and implementation of a 50% renewables goal. Los Angeles County must play an important role in achieving (not impeding) such an ambitious target.

O4-2 Cont.

SCPPA appreciates the opportunity to provide these comments. Thank you for your time and consideration.

Respectfully submitted,

Tanya DeRivi
Director of Government Affairs

Response to Comment Letter O4

Southern California Public Power Authority
Tanya DeRivi, Director of Government Affairs
April 6, 2015

O4-1 This comment consists of an introduction to the Southern California Public Power Authority and expresses the concern that the proposed Zoning Code amendments would deter renewable energy projects in the County. This concern is further explained in Comment O4-2 and is thus addressed in Response O4-2.

O4-2 The commenter states that the Draft EIR "fails to adequately address the potential project feasibility impacts of implementing the proposed project." The commenter goes on to state that the requirement to underground transmission lines would make it infeasible or impossible to site utility-scale projects in certain areas of the County. Reasons given in the comment letter consist of operational and physical limitations and cost effectiveness. In accordance with CEQA Guidelines Sections 15064(e) and 15131, social and economic effects are not treated as significant effects on the environment in EIRs, and such effects do not need to be considered in an EIR. Furthermore, it is not the function of an EIR to evaluate the merits of a project or to provide a recommendation to decision makers.

Modifications to the standards of the proposed Zoning Code amendments can be requested as part of a Minor CUP or CUP for future utility-scale projects if the applicant is able to make the findings for such a modification as listed in the proposed Zoning Code amendments (see Appendix A). One of these findings is that "Due to topographic or physical features of the site, strict compliance with all of the required standards would substantially and unreasonably interfere with the establishment of the proposed development on the subject property." This finding addresses the issue of infeasibility in the event that a future project site were to contain a physical feature that would preclude the project from strictly complying with the proposed Zoning Code amendments. The effects of future utility-scale ground-mounted renewable energy projects and all wind energy projects would be subject to further discretionary review and CEQA review. The site-specific and project-specific environmental effects of future projects, including the construction and operation of transmission lines and the undergrounding process, would be addressed on a project-by-project basis.

One of the objectives of the proposed project, as stated in Section 3.1 of the Draft EIR, is to "facilitate the use of renewable energy within the County pursuant to existing and future statewide goals." The commenter disagrees that the proposed project meets this

objective. The substantiation that the commenter provides consists of a statement that the proposed project sets forth "unduly burdensome requirements," including the requirement for undergrounding of transmission lines. The commenter mentions that such requirements would make the energy produced by such projects prohibitively expensive. However, the proposed project has several other objectives aside from simply facilitating the use of renewable energy that must be fulfilled by the proposed project. Other objectives are to "minimize the potential for land use conflicts and environmental impacts that may arise through the development of renewable energy systems and facilities," and to "encourage the development of small-scale and structure-mounted renewable energy systems and facilities through a streamlined and standardized permit review process." The requirements of the proposed Zoning Code amendments for utility-scale ground-mounted renewable energy systems are therefore intended to provide baseline standards for these projects where there are currently none. While some of these standards would enact changes in existing regulations that are intended to facilitate certain types of renewable energy development, other standards enact changes in existing regulations that are intended to address environmental and land use concerns that arise from some types of renewable energy projects.

Comment Letter O5

Los Angeles Department of Water & Power

RECEIVED
APR 13 2015
BY:

April 6, 2015

Mr. Jay Lee
Department of Regional Planning
Los Angeles County
320 West Temple Street, Room 1354
Los Angeles, CA 90012

Subject: Los Angeles County Renewable Energy Ordinance Draft Environmental Impact Report (DEIR)

The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to provide comments on the Los Angeles County Renewable Energy Ordinance DEIR. The mission of the LADWP is to provide clean, reliable water and power to the City of Los Angeles. To do so, the LADWP owns land throughout the City of Los Angeles and beyond. The LADWP would like to provide comments on the DEIR regarding issues related to undergrounding transmission lines, a requirement of the aforementioned ordinance. O5-1

Barren Ridge Renewable Transmission Project

The LADWP is in the process of building the 60-mile long Barren Ridge Renewable Transmission Project (BRRTP) which includes a double circuit 230kV transmission lines between the newly upgraded Barren Ridge Switching Station (BRSS) in Kern County, to new Haskell Canyon Switching Station (HCSS) in LA County. To take advantage of this new transmission project, a conceptual plan to provide two (2) additional regional switching stations (hubs) which would provide 230kV Points of Interconnections to developers building new renewable projects along this corridor near those regions. One O5-2

hub would be located in Kern County and the other in LA County equidistantly separated approximately 20 miles apart from each other and between the BRSS and HCSS.

These switching station hubs are proposed to accommodate multiple renewable project's interconnection at each site, to the LADWP 230kV transmission grid along this corridor. The proposed LA County Renewable Energy Ordinance would require developer's generation tie lines to the LA County hub be undergrounded at a much greater expense versus overhead construction. This would indirectly affect the LADWP in that these projects' Interconnection Customer (IC) costs would be prohibitively expensive, costs of which would eventually be passed onto the LADWP if a Power Purchase Agreement (PPA) is executed with said IC. If interconnection costs and PPA terms are unfavorable, then the LADWP would not enter into such agreements, thus discouraging development of these renewable projects.

If few or no developers build near the vicinity of the proposed LA County switching station hub as a result of inordinately high IC generation tie line costs, the LADWP may then decide to relocate the LA County hub to the Kern County area to avoid this undergrounding regulatory requirement. However, the effect of that is then the two planned hubs would be unacceptably close (within 10 miles of each other) to each other, thus the LADWP may then subsequently cancel the second hub. This may have the effect of requesting developers to build much longer transmission interconnection generation tie lines to a singular hub located in Kern County and again would also request that developers in LA County build longer generation tie lines thereby further discouraging renewable development.

In summary, any proposed LADWP plan to build an interconnecting switching station hub in LA County may be cancelled as a result of this LA County proposed ordinance requiring undergrounding of transmission generation tie lines for renewable projects.

O5-2 Cont.

Reliability

Undergrounding transmission lines raises a number of technical concerns, which affect reliability. Additionally, underground transmission lines require more maintenance than overhead transmission lines, and cannot be inspected as easily.

O5-3

Flexibility

The LADWP feels that undergrounding of transmission lines should be a requirement on a project by project basis. There may be some instances where undergrounding is feasible and beneficial to the community and the environment. However, as mentioned above in our discussion about the BRRTP, this is not the case for all projects. O5-4

Other Environmental Impacts

The DEIR fails to properly analyze the potential impacts that would result from undergrounding transmission lines. While the requirement to underground transmission lines mitigates visual impacts, the negative impacts outweigh the benefits. For instance, undergrounding would require more ground disturbance than the construction of overhead transmission lines, which would result in more impacts to archaeological, cultural, and biological resources. O5-5

Thank you again, for this opportunity to review and comment on the Los Angeles County Renewable Energy Ordinance Draft Environmental Impact Report. Please direct all questions and concerns regarding these matters to Ms. Stephanie Eatinger of my staff at (213) 367-0968 or at Stephanie.Eatinger@ladwp.com. O5-6

Sincerely,

Charles C. Holloway
Manager of Environmental Planning and Assessment

SE:mg
c: Ms. Stephanie E. Eatinger

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Response to Comment Letter O5

Los Angeles Department of Water and Power
Charles C. Holloway, Manager of Environmental Planning and Assessment
April 6, 2015

O5-1 This comment consists of an introduction to the Los Angeles Department of Water and Power (LADWP) and expresses concerns related to the undergrounding of transmission lines, which would be required by the proposed Zoning Code amendments for future utility-scale ground-mounted projects developed pursuant to the proposed Zoning Code amendments. This concern is further explained in Comments O5-2 through O5-5 and is thus addressed in the responses below.

O5-2 This comment describes the Barren Ridge Renewable Energy Transmission Project (BRRTP) and expresses concerns that the proposed requirement of undergrounding transmission lines would affect the financial and technical feasibility of a conceptual plan for two new regional switching stations along the BRRTP corridor that would provide an opportunity for renewable energy developments to connect to the new transmission line.

The commenter expresses a concern that requirements for undergrounding would preclude future permittees from extending generation tie lines to these switching stations or would cause the high cost of undergrounding generation tie lines to be passed along to LADWP. The proposed project would require the undergrounding of transmission lines and does not specifically address generation-tie lines. (However, as described in Response C2-13, requirements to underground generation tie lines can be imposed on a project-by-project basis.)

See Response O4-2 for information regarding undergrounding of transmission lines and the economic viability of renewable energy projects.

It is further noted that the requirement to underground transmission lines for utility-scale ground-mounted facilities was incorporated into the proposed Zoning Code amendments based on policy direction from the Board of Supervisors. On May 18, 2010, due to negative impacts and concerns associated with transmission lines, such as aesthetic impacts, the Board of Supervisors instructed the Director of Planning to investigate the feasibility of a policy on the undergrounding of transmission lines in the General Plan Update and the Antelope Valley Area Plan Update and report back within 30 days. Regional Planning determined that it is feasible to include policies to minimize impacts associated with transmission lines, including the requirement of

placing new transmission lines underground whenever physically possible, and such language has been included in both the 2015 General Plan Update and the 2015 Antelope Valley Area Plan Update. The 2015 Antelope Valley Area Plan Update was adopted by the Board of Supervisors on June 16, 2015, and the 2015 General Plan Update was approved by the Board of Supervisors in March 2015 and is anticipated to become officially adopted by July 2015. The proposed project is required to be consistent with the County's General Plan and with the Antelope Valley Area Plan. As such, it includes the requirement to underground transmission lines whenever physically possible. However, the recommendation to remove this requirement will be included as part of the Final EIR for review and consideration by the decision makers.

O5-3 This comment expresses concerns regarding the reliability of underground transmission lines and also states that underground transmission lines require more maintenance than aboveground lines. This concern will be included in the Final EIR for consideration by decision makers. The EIR for the proposed Zoning Code amendments examines the potential environmental effects of future projects developed pursuant to the proposed Zoning Code amendments. However, it is not the responsibility of an EIR to examine the reliability or technical feasibility of the proposed Zoning Code amendments. In the event that undergrounding future transmission lines proposed in conjunction with a utility-scale ground-mounted renewable energy project would be technically infeasible, a future permittee could request a modification in the development standards. See Response O4-2 for information about modifications.

O5-4 This comment requests that undergrounding of transmission lines be required on a project-by-project basis. As described in Response O4-2, future permittees would be able to request a modification from this development standard due to site-specific concerns. Additionally, as described in Response O5-2, the requirement for undergrounding transmission lines was based on policy direction from the Board of Supervisors. The requirement was then incorporated into the proposed Zoning Code amendments, based on this direction from the Board and based on policies in the 2015 Antelope Valley Area Plan Update and 2015 General Plan Update.

O5-5 This comment states that the Draft EIR does not properly analyze the potential effects of undergrounding transmission lines.

Undergrounding transmission lines is a proposed requirement for utility-scale ground-mounted facilities. As described in Section 10.1 of this document, these projects were analyzed at the programmatic level in this EIR. As required by CEQA, the EIR addresses all phases of future projects developed pursuant to the Zoning Code

amendments. As such, the environmental effects of undergrounding are captured in the analysis within the EIR. The environmental effects of overhead lines, such as bird electrocution, as also addressed. The EIR identifies that future utility-scale ground-mounted facilities could result in potentially significant effects to the following issue areas: aesthetics, agriculture and forestry resources, air quality, biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, traffic and circulation, and utilities and service systems. While the requirement to underground transmission lines did not solely trigger any of these significance determinations, it is considered to be a potential part of some future projects and thus contributes to the impact determinations in the EIR. For these reasons, the EIR adequately captures the potential effects of increased ground disturbance, construction activities, and other potential environmental effects of placing transmission lines underground.

Furthermore, all future utility-scale ground-mounted projects would be subject to project-specific review under CEQA. At this time, site-specific impacts associated with the entirety of a project (including the undergrounding of transmission lines, if applicable) would be identified. Because this EIR is programmatic in nature and because the proposed project would apply to a large and geographically diverse area, additional site-specific concerns would be identified and addressed on a project-by-project basis.

This comment also states that the negative effects of undergrounding transmission lines would outweigh the benefits. This comment will be included in the Final EIR for review and consideration by the decision makers.

O5-6 This comment concludes the letter; as such, no response pertaining to the proposed project or to the Draft EIR is required.

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Comment Letter I1

From: aadnews@joycemediainc.com
Sent: Monday, February 23, 2015 9:56 AM
To: Jay Lee
Subject: Re: Response to renewable energy ordinance.

Hi Jay,

Yes I appreciate your response but many people here are not moving ahead with renewables because they fear LA County inspectors coming on their properties telling them that previous inspectors were not thorough enough when they inspected 20 or 30 years ago! Doesn't that sound a little bit ridiculous? I1-1

John

On Feb 23, 2015, at 8:18 AM, Jay Lee <jlee2@planning.lacounty.gov> wrote:

Hello John,

The Draft Renewable Energy Ordinance only amends Title 22 (Planning and Zoning) of the County Code and does not regulate the enforcement processes of Department of Public Works Building and Safety inspectors. If you are referring to Department of Regional Planning inspectors, our general enforcement procedures are outlined in Part 6 of Chapter 22.60 of the County Code. The regulation and inspection of other structures on the property not related to solar and wind projects is not within the scope of the Ordinance.

Please feel free to express your concerns to our Code Enforcement Section, as they are better suited to address them.

Thank you.

From: aadnews@joycemediainc.com [mailto:aadnews@joycemediainc.com]
Sent: Friday, February 20, 2015 1:49 PM
To: Jay Lee
Subject: Response to renewable energy ordinance.

Jay,

Double jeopardy has to go.

A building & safety inspector coming onto a home site to inspect new solar or wind should not be allowed to cite infractions to other structures that previous inspectors have either approved or ignored in the past. I1-1

John
jj@aadnews.com

www.aadnews.com
Phone 661 269 1169

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Response to Comment Letter I1

John Joyce
Publisher for Acton/Agua Dulce News
February 23, 2015

I1-1 The Draft EIR analyzes the potential environmental effects of adopting the proposed project, which consists of amendments to Title 22, Planning and Zoning, of the Los Angeles County Code. These amendments do not regulate the enforcement processes of Department of Public Works and Safety inspectors, and they do not regulate the inspection of structures not related to solar and wind projects. As such, this comment does not pertain to the environmental analysis contained in the Draft EIR. However, this comment will be included in the Final EIR for review and consideration by the decision makers.

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Comment Letter I2

From: Mark Distaso <m.distaso@att.net>
Sent: Monday, March 02, 2015 9:24 AM
To: Jay Lee
Subject: Wind Turbines: DEIR SCH#2014051016

Mr. Lee,

I have become aware of the proposed effort to place wind turbines in the mountains north of Crown and Shannon Valleys and Pelona Canyon for renewable energy purposes. I have lived near the top of Red Rover Canyon Rd in Acton for 18 years. I chose the location in part because of the view of the very mountains that the proposed windfarm is to be located. From my own professional and personal experience, I know that while wind turbines can provide cleaner energy production - it takes a large number of turbines to generate enough electricity for the power grid to make any difference in energy production. As such, the placement of large numbers of turbines can degrade the aesthetic and visual quality of the areas where they are placed. This will have a direct negative impact on the entire valley and canyon areas mentioned above. Furthermore, the entire area where the proposed turbines are proposed to be located have a signifigant red tail hawk population. Although some studies will suggest that wind turbines can help bird populations, I believe they are substantially without merit. The more convincing studies reflect that bird popluations of all kinds are negatively impacted by such turbines - and hopefully such studies will be strongly considered. I2-1

In summary, I am opposed to the proposed wind turbine farm and believe there are other more suitable locations for them.

Mark Distaso
Acton Resident
4403 Pelona Cyn Rd
Acton, Ca
m.distaso@att.net

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Response to Comment Letter I2

Mark Distaso
March 2, 2015

I2-1 This comment identifies concerns regarding wind turbines being proposed in the mountains north of Crown and Shannon Valleys and Pelona Canyon. This EIR analyzes the potential environmental effects of future projects developed pursuant to the proposed Zoning Code amendments. As discussed in Section 3.3.3 of the Draft EIR, this EIR analyzes wind energy projects at the programmatic level and does not examine any specific wind energy project, such as the one that the commenter discusses (see Section 10.1 for a discussion of the differences between programmatic analysis and project-level analysis).

The issue areas addressed in this comment letter are evaluated in the EIR at the programmatic level. Section 4.1 of the Draft EIR considers and addresses the effects of wind turbines on aesthetics at the programmatic level, and Section 4.4 of the Draft EIR considers and addresses the effects of wind turbines on biological resources at the programmatic level. As shown in Section 7, References, of the Draft EIR several studies regarding the effects of wind turbines on bird and bat populations were referenced in the preparation of the Draft EIR, including studies that discuss potential negative effects of wind turbines on bird populations.

Under the current Zoning Code, wind energy projects that are proposed would be required to undergo project-level CEQA review and discretionary approval. Under the proposed Zoning Code, these review requirements would not change—wind energy projects would still be required to undergo project-level CEQA review and discretionary approval. As such, biological and aesthetics analyses would be conducted on a project-by-project basis for future wind energy projects. See Section 10.1 for further explanation on the differences between review and approval for renewable energy projects under the existing Zoning Code versus review and approval under the proposed Zoning Code amendments.

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Comment Letter I3

From: Jacki Ayer <airspecial@aol.com>
Sent: Monday, March 09, 2015 11:59 AM
To: Susan Tae; Jay Lee
Cc: 3pointsliebremountain@gmail.com; mr.croisdale@sbcglobal.net; m_r_hughes@earthlink.net; desertchurros@icloud.com; wolterpam@aol.com; tom@quality-visual.com; thorx655@earthlink.net; blumranch@aol.com; ktrinity46@gmail.com; bh33605@aol.com; maryjohnson@canyonwave.com
Subject: Comments on Draft Renewable Energy Ordinance
Attachments: renewable energy ordinance comments.pdf

Hello Suzie;

I have attached my comments on the Draft Renewable Energy Ordinance to this email, and have also forwarded them to the ATC, the ARTC, and others who may be interested in them as well. I3-1

I understood from our conversation last week that the Draft Ordinance includes ridgeline protection provisions, however my examination of the Draft Ordinance indicates that utility-scale ground-mounted wind energy projects are not subject to either the ridgeline protection provisions contained in the ordinance or ridgeline protection provisions contained in adopted CSDs. Perhaps I misunderstood what you said, and perhaps I have misinterpreted the Draft Ordinance. If not, then I think it is reasonable to ask Regional Planning to explain

1) Why 500 foot high wind tower structures (described on page 57) on significant ridgelines are deemed acceptable by the County, but 25 foot high homes are not.

2) Why only very low density residential development is permitted in hillside areas, but wind turbine densities are not limited at all. I3-2

Finally, I wish to point out that many studies on wind turbine noise and appropriate separation distances from homes have been conducted (both domestically and internationally) and generally turbines are not allowed within 500 meters (or more) of residential properties. In the case of Acton, this distance should be measured from any adjacent parcel zoned for residential use whether developed or not. I3-3

I look forward to working with you and other staff members on addressing these concerns before the ordinance is adopted. I3-4

Thank you for your time

Jacqueline Ayer

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Response to Comment Letter I3

Jacqueline Ayer
March 9, 2015

I3-1 This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

I3-2 This comment raises several questions about the proposed Zoning Code amendments pertaining to ridgeline protection measures for utility-scale ground-mounted wind energy facilities, wind tower heights, and density of wind turbine development compared with density of residential development in hillside areas.

Subsequent to the release of the Draft EIR, revisions have been made to the proposed ridgeline protection provisions. See Response S1-10 and Appendix A for details. Ridgeline protection provisions would apply to utility-scale wind energy facilities, and these provisions have been revised to require a greater horizontal setback and to encompass biologically important ridgelines.

Wind turbine densities would be limited by industry standards for separation requirements and the size of the proposed turbines. Furthermore, utility-scale ground-mounted wind energy facilities would be prohibited from the A-1 zone and from the residential zones. As such, in areas zoned for low-density residential uses, such projects would not be allowed.

The impacts of utility-scale ground-mounted wind energy facilities on visual resources such as ridgelines are addressed in Section 4.1 of the Draft EIR. The proposed Zoning Code amendments provide baseline guidelines for renewable energy projects. Future utility-scale ground-mounted renewable energy projects are currently required to undergo project-level CEQA review and discretionary approval in most zones (see Table 10-1). Under the proposed Zoning Code amendments, utility-scale ground-mounted renewable energy projects would still be required to undergo project-level CEQA review and discretionary approval (see Table 10-2). As such, project-specific mitigation measures may be required to address site-specific needs regarding impacts to aesthetics. See Section 10.1 for further information about the level of review that would be required for future renewable energy projects under the proposed Zoning Code amendments.

I3-3 This comment consists of a suggested Zoning Code provision and does not pertain to the adequacy of the environmental analysis in the Draft EIR. The suggestion will be included in the Final EIR for review and consideration by the decision makers.

The proposed Zoning Code amendments would require utility-scale ground-mounted wind energy facilities to be set back from all property lines by a distance of two times the tallest wind tower height. This same setback would also be required for on-site or off-site residences or other habitable structures. These two setback requirements would protect adjacent properties as well as adjacent or on-site residences from noise produced by utility-scale ground-mounted wind energy facilities. The setbacks that would be required in the proposed Zoning Code amendments differ from the recommended 500-meter (1,640-foot) setback that is provided by the commenter. However, the setbacks specified in the proposed Zoning Code amendments would be the minimum requirements. Greater setbacks could be imposed on future utility-scale ground-mounted wind energy facilities on a project-by-project basis to address noise impacts and other project-specific environmental effects.

The impacts of wind turbines related to noise are addressed in Section 4.12 of the Draft EIR. As noted above, the proposed Zoning Code amendments provide baseline guidelines for renewable energy projects. Future wind energy projects would be subject to project-level CEQA review and discretionary approval. As such, site-specific noise impacts would be evaluated per CEQA on a project-by-project basis and additional setbacks could potentially required as a design feature or as mitigation, if necessary.

I3-4 This comment concludes the letter and does not raise a significant environmental issue for which a response is required.

Comment Letter I4

March 9, 2015

Jay Lee
Los Angeles County Department of Regional Planning
320 W Temple St 13th Floor
Los Angeles CA 90012
jalee@planning.lacounty.gov
Electronic Transmission of eight (8) pages

Subject: Comments on the Draft Renewable Energy Ordinance.

Reference: Draft Renewable Energy Ordinance Issued February 20, 2015.

Dear Mr. Lee;

In the paragraphs below, please find comments on the Draft Renewable Energy ("RenEng") Ordinance submitted in preparation for the Regional Planning Commission hearing scheduled for March 18, 2015. I have several concerns regarding this ordinance, and respectfully requests that the changes enumerated below be incorporated in the version of the ordinance that is adopted by the County of Los Angeles. I4-1

THE THRESHOLD FOR AVOIDING COMPLIANCE IS TOO LOW

As indicated below, I am concerned that the RenEng Ordinance does not adequately protect rural communities from the glare, noise, dust, lights, and water resource impacts of RenEng projects, and it facilitates the industrialization of rural communities, the ruination of significant ridgelines, and the violation of Community Standards District ("CSD") protections. Even more alarming is the fact that the RenEng Ordinance allows energy developers to sidestep the few protections that do exist by simply requesting a "modification" to the requirements based on a claim that they "unreasonably interfere" with development. (See 22.52.1640). The only basis for denying such requests is if the County finds them to be "contrary to the purpose" of the RenEng Ordinance. However, the County will ***never*** be able to make such a finding because the entire purpose of the RenEng Ordinance is to "support and facilitate" the development of RenEng projects (See Section 22.52.1600). The circular structure of these ordinance provisions ensures that large-scale energy projects will proceed quickly, with little or no community input, and without regard for community impacts. This is completely unacceptable, and the RenEng Ordinance must be revised to strengthen (rather than decimate) protections for established rural residential communities like Acton. I4-2

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NOISE

The treatment of Noise Pollution in the RenEng Ordinance is deficient in a number of ways.

1) It applies only to small-scale wind energy facilities and ignores the substantially louder noise potential of utility-scale wind generation facilities (both structure- and ground-mounted). The noise limit application is too narrowly constrained in the RenEng Ordinance, and must be expanded to address all utility-scale generation projects. I4-3

2) It constrains the consideration of noise impacts to only existing inhabited dwellings, and ignores businesses and outdoor uses such as equestrian facilities (barns, corrals, trails), animal rescue facilities, agricultural uses, etc. It also ignores impacts to adjacent land that has not yet been developed for residential or agricultural use; it is likely that such land will be rendered worthless given the high noise threshold that the draft ordinance allows. This must be rectified by imposing a fence-line noise limit. I4-4

3) It establishes a very high (60 dB) noise threshold that is entirely unsuitable for rural areas. Ambient noise levels in such areas are typically less than 45 dBA, and an increase of 10 dBA results in an approximate doubling of the sound, while an increase of 20 dBA results in an approximate quadrupling of the sound. The draft ordinance establishes a 60 dBA threshold, which essentially triples the ambient noise level in rural areas. To frame the issue in more understandable terms, 60 dBA is approximately the noise level one experiences 3 feet from an operating clothes dryer, and 10 dBA more (at 70 dBA) is the noise made by a vacuum cleaner. As it currently stands, the RenEng Ordinance authorizes this continuous and exceptionally loud "noise overlay" in rural areas where the existing noise profile is virtually non-existent. The Commission is reminded that rural communities exist because rural residents seek the peace and quiet afforded by such communities. All of this is threatened by the high noise threshold established by the RenEng ordinance. To address this concern, the threshold value must be reduced to 45 dBA. I4-5

4) It relies on a "Single Event Level" parameter which does not properly or accurately represent the continuous noise profile generated by wind energy facilities. While uses which occasionally create single noise events of 60 dBA or more may be reasonable in rural areas, uses which generate such noise levels on a continuous basis (such as wind turbines) are not. I4-6

5) Nowhere does the RenEng Ordinance require any project proponent to provide noise data as part of the application process, nor does it require a "followup" assessment at the site to confirm that noise limits are met. Worse yet, it provides no backstop protections to ensure compliance with this noise limit over time and after the wind turbine bearings and contact surfaces are worn down and no longer "true". I4-7

RIDGELINES I4-8

The Acton CSD contains specific provisions that protect "significant ridgelines" and it clearly defines what constitutes a "significant ridgeline" within the Community of Acton. I

2

am concerned that the RenEng Ordinance only imposes ridgeline protection provisions for utility scale solar energy and small scale wind energy developments (Sections 22.52.1620 and 22.52.1630, respectively), but not utility scale wind energy developments. I am also concerned that the community of Acton will not benefit from even the minimal ridgeline protection provisions provided in the RenEng Ordinance because the significant ridgelines within the community of Acton are not "mapped" in the CSD, rather they are clearly defined by description. Therefore, I make this two-part request: 1) The RenEng Ordinance be revised to subject utility scale wind energy projects to the same ridgeline protection provisions that apply to utility scale solar and small scale wind energy projects; and 2) The Department of Regional Planning provide written clarification that the ridgeline protection provisions provided in the RenEng Ordinance do indeed apply to Acton's "Significant Ridgelines" as that term is defined in the Acton CSD.

I4-8 Cont.

CSD PROVISIONS MUST PREVAIL

According to Section 22.52.1605 of the RenEng Ordinance, supplemental district regulations (such as Community Standards District provisions) apply to all RenEng projects. However, in instances where the RenEng Ordinance regulates matters that are also addressed by CSD provisions, the RenEng Ordinance prevails, and CSD provisions are subordinated. This untenable arrangement has never been explained, and Planning Staff have never provided any reasons for including such provisions. This portion of the RenEng Ordinance must be revised to ensure that CSD provisions prevail, particularly in regards to utility scale wind and solar generation projects. The reasons are obvious; CSDs are established for, constrained to, and address, developed residential uses, and they include provisions that are intended to protect these residential uses from incompatible industrial development such as utility-scale generation projects. Granting industrial uses the ability to sidestep community protection provisions of any CSD "by right" and without reason or justification undermines the entire CSD structure. Any renewable energy proponent wishing to develop a project that does not comply with a CSD provision should be required to go through the variance process just like any other project proponent that wishes to avoid CSD requirements. Above all, RenEng developers should not be granted a perfunctory "pass" that allows them to completely ignore the very development standards that communities have fought hard for and which protects residents from incompatible development.

I4-9

FAA LIGHTS

Section 22.52.1610 of the RenEng Ordinance requires the addition of "FAA-required safety lights" on all utility scale wind energy facilities. This poses a problem in that utility companies frequently state that FAA lights are required when in fact they are not. Take for example the transmission lines recently constructed through Acton and the Angeles National Forest. SCE informed the CPUC that FAA required lights on the new towers, so the CPUC authorized them. However, the US Forest Service clarified that FAA lights were not actually required on such transmission tower structures, so SCE did not install lights on any of the 60+ miles of towers located in several utility corridors along ridgelines and hilltops throughout the Angeles National Forest. In fact, these "FAA-required" lights were only

I4-10

installed in residential areas located in valleys (specifically where aircraft do not fly). These lights (which the FAA supposedly "required" but really did not) have created terrible problems for the surrounding homes by beaming bright red lights into living and sleeping spaces, eliminating night vision capabilities, and simply destroying the homeowners' ability to enjoy the out-of-doors in the evening and at night. The point is, the County must take every possible action to avoid the installation of FAA lights and diligently confirm any applicant claim that "FAA-required" lights are indeed required. The County must also seek alternatives to such lights, and ensure that any lights which are installed shine light only in an upward direction and are not visible from any area that is at or below the elevation of the lights. Otherwise, the entire point of the County's recently adopted "Dark Sky" rural lighting ordinance is completely lost.

I4-10 Cont.

THE RENENG ORDINANCE FAILS TO IMPOSE EVEN THE MINIMUM OFFSET REQUIREMENTS THAT ARE CURRENTLY IMPOSED ON SINGLE HOME DEVELOPMENTS

Currently, the County requires the acquisition of open space "mitigation land" at ratios of up to 2:1 by property owners that seek to create large (>5 acre) residential lots through the minor land division process[1]. Yet, incredibly, no such mitigation requirements are imposed on any RenEng projects, even though such projects result in the wholesale destruction of thousands of acres of pristine open space areas! The irony of this lopsided application of "mitigation land" requirements is magnified by the fact that large portions of rural residential parcels generally remain untouched, while RenEng projects result in the utter decimation of the ***entire*** land area that they occupy. This double standard (which is applied under the guise of "resource protection") is simply ***unacceptable.*** The County cannot have it both ways. If the County is going to impose stringent open space "mitigation land" requirements to offset the negligible impact of large lot minor land divisions, then it must impose equally stringent open space "mitigation land" requirements to offset the astoundingly devastating impacts of RenEng Projects. These "mitigation land" requirements must be included in, and clearly established by, the RenEng Ordinance.

I4-11

2.5 ACRES FOR A "SMALL SCALE SOLAR ENERGY SYSTEM" IS ENTIRELY TOO LARGE

Section 22.52.1615 of the RenEng Ordinance allows "Small-Scale Solar Energy Systems" to occupy up to 2.5 acres of land, and Section 22.52.1640B even provides a "Minor Conditional use Permit" pathway that can be used to further increase this limit. However, the amount of energy generated by 2.5 acres of solar arrays is so substantial that it could never be deemed "primarily for on-site use" on rural residential and agricultural lots, as evidenced by data recently provided by the National Renewable Energy Laboratory ("NREL")[2]. According to NREL's data, 2.5 acres of "tilt" photovoltaic solar panels will provide nearly 1 gigawatt-hr of solar energy per year, which is .more than enough energy to support 75 homes annually. Obviously, the energy produced by a 2.5 acre residential solar system

I4-12

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1 See for example the Mitigated Negative Declaration prepared by the County for Vesting Tentative Parcel Map Number 68736.

2 http://www.energymanagertoday.com/it-takes-2-8-acres-of-land-to-generate-1gwh-of-solar-energy-per-year-says-nrel-094185/

would greatly exceed the on-site energy "need" of ***any*** residential parcel, and the intent of constructing such a system on rural residential/agricultural land would ***clearly*** not be to "generate direct electrical or thermal energy primarily for on-site use" because no rural residential use is equivalent to 75 homes. Therefore, solar generation plants of this size on residential/agricultural lots intrinsically fail to meet the definition of "Small-Scale Solar Energy System" found in 22.08.190 of the RenEng Ordinance. For this reason, the size limit for "small-scale solar energy" systems installed on rural residential and agricultural zoned properties must be much less than 2.5 acres. I recommend that these systems be limited to 15 kW (which is approximately 75 solar panels) which is more than sufficient to power 3 homes, or one home with accessory uses that impose significant energy demands.

I4-12 Cont.

50 kW FOR A "SMALL SCALE WIND ENERGY SYSTEM" IS ENTIRELY TOO LARGE

According to Section 22.08.190 of the RenEng Ordinance "Small-Scale Wind Energy Systems" are intended to provide electricity primarily for on-site use, and are permitted to have a capacity as high as 50 kW. For the record, the California Energy Commission classifies 50 kW wind energy systems as "Intermediate Utility Scale" systems[3], therefore 50 kW is hardly an appropriate limit for a "Small Scale" RenEng System. Moreover, a 50 kW wind system produces enough energy to support 10 homes, thus it is obvious that the primary purpose of installing such a large system on residential or agricultural properties would not be to generate power for "on-site use", rather it would be to sell power to the grid for "off-site use", which is explicitly contrary to the definition and stated intent of "small scale wind energy systems" provided in Section 22.08.190. To address this glaring inconsistency, I recommend that the size of "Small-Scale Wind Energy Systems" that are permitted on residential/agricultural properties be limited to 15 kW or less, which is more than sufficient to power 3 homes, or one home with accessory uses that impose significant energy demands.

I4-13

DUST

The RenEng Ordinance authorizes the use of "soil binders" to control dust on access roads and other disturbed areas. However, the Commission is advised that soil binders in this application are not appropriate for the following reasons (cited in the California Stormwater BMP Handbook):

- Soil Binders do not hold up to pedestrian or vehicular traffic, therefore authorizing their use on access roads will provide ineffective (and non-existent) dust control.
- Soil binders often do not penetrate compacted soils, and are therefore ineffective.
- The performance of soil binders are soil-texture specific; some do not work on sandy soils, and others do not work on silty soils. Both soil types can be collocated within the Antelope Valley, therefore it is unlikely that an effective soil binder will be found.

I4-14

[3] See http://www.energy.ca.gov/wind/overview.html

5

- Soil binders do not perform well in low humidity areas. The Antelope Valley is located in the high desert and typically has very low relative humidity, therefore authorizing the use of soil binders in the Antelope Valley will provide ineffective dust control.

- The use of soil binders may have water quality impacts due to their chemical makeup. Throughout the Antelope Valley, residents rely on wells for drinking water, therefore authorizing the use of soil binders in the Antelope Valley without first documenting the potential impacts of such materials on drinking water quality is wholly inappropriate.

I4-14 Cont.

There are also problems with the dust control provisions that address non-access road areas and other portions of RenEng projects (see for example page 64 of 75). The RenEng Ordinance appears to rely on existing vegetation to control dust levels, in that it authorizes mowing of such vegetation, but prohibits root system removal. This presumes that existing vegetation which thrives on the full sunlight of the Antelope Valley and perhaps relies on dew condensation for survival will continue to survive when covered over entirely by solar panels which eliminate both light and condensation. Worse yet, the RenEng Ordinance contains no "back up" dust control provisions that must be implemented if (or rather when) the native vegetation dies out. This serious deficiency must be addressed before any RenEng ordinance is adopted.

I4-15

GLARE

The RenEng Ordinance states:

> "All utility-scale solar energy facilities shall be designed and located in such a way to minimize reflective glare toward any habitable structure on adjacent properties as well as adjacent street rights-of-way."

This language is too vague and imprecise. What does it mean to "minimize" glare? Glare either exists or it does not. And how do you minimize it anyway? What steps will the County require as proof that glare has indeed been "minimized? There is no point in imposing a condition that cannot be effectively assessed to establish compliance. And why does this provision apply only to "habitable structures" on adjacent properties? What about undeveloped adjacent lands that may be rendered undevelopable because of glare problems? What does "adjacent" mean, anyway, and how far away must property be to not qualify as "adjacent"? Given the fact that glare impacts often occur at considerable distances from a source (and not merely "adjacent" to it), why does this ordinance consider and address only glare impacts that occur adjacent to the RenEng facilities? And above all, why does this ordinance allow any glare at all?

I4-16

WATER

The RenEng Ordinance does not address the ***enormous*** quantities of water that are required to operate solar RenEng projects. Allowing RenEng developers to obtain water from any source that they find convenient without regard for the impacts that such

I4-17

significant water withdrawals may have on the water table and domestic water wells is a substantial deficiency of the RenEng Ordinance. This deficiency is best addressed by requiring RenEng projects to rely solely on the use of recycled water (obtained from the "purple" hydrants that dot the Antelope Valley). To affect this purpose and eliminate the possibility of using potable water on RenEng infrastructure, the recycled water must be trucked in via suitably marked trucks (perhaps painted purple to match the fire hydrants) so that observers can monitor for compliance.

I4-17 Cont.

CONCENTRATOR SYSTEMS

The RenEng Ordinance omits concentrator systems from the definition of "solar array", but it does not preclude such systems from the spectrum of renewable generation systems that are addressed by the ordinance. This ordinance must only address and authorize photovoltaic-based solar generation facilities and must specifically preclude all mirror-based "concentrator" solar-thermal systems (which range from small micro-concentrator and dish/stirling engine systems to long, linear parabolic trough systems to large, concentrically arranged, heliostat mirrors that concentrate light onto a single "power tower"). The impacts of these systems are so substantial and unmitigable that they should not be allowed anywhere in the Antelope Valley.

I4-18

SITE PLAN AND SUBMITTAL REQUIREMENTS FOR UTILITY-SCALE WIND PROJECTS

Section 22.52.1610 A of the RenEng Ordinance appears to only addresses solar facilities. It should be expanded to address wind facility footprints, require location and height information for all wind generators, and include layout "plan" views and topographic "side" views for wind generation projects. Furthermore, it is noted that the Section 7 portion of 22.52.1610 B (re: projects that require a CUP) which addresses utility-scale wind projects fails to require topography data, rather it just requires a figure depicting tower height. This is unacceptable, given the significant visual impact that such towers create, especially if they include "FAA-required" lights.

I4-19

CUP VS MINOR CUP REVIEW FOR UTILITY SCALE RENENG PROJECTS.

Section 22.56.085 The RenEng Ordinance appears to establish which projects may be subject to the County's "Minor Conditional Use Permit" process, and it specifically identifies small scale solar, small scale wind, temporary met towers, and utility-scale structure-mounted wind projects as being eligible uses that "may" file for a Minor Conditional Use Permit. First of all, I would like to clarify whether or not these are the only types of RenEng Projects are eligible to undergo the "Minor" CUP process, and would appreciate confirmation of this fact. Secondly, I wish to register my ***strident*** objection to making any utility scale RenEng project eligible for the "Minor" CUP process, especially given that the noise levels generated by such projects are specifically **not** regulated (see comments re Noise Pollution above). I would also like to point out that the nature of utility generation project are, by definition, ***never*** "limited in scope and impacts", therefore allowing them to undergo the "Minor" CUP process ***is explicitly contrary*** to the stated intent of 22.56.085, which is:

I4-20

> "The purpose of this section is to authorize the consideration of minor conditional use permit applications *that by their nature are limited in scope and impacts*." (Emphasis added)

I4-20 Cont.

For this reason, I ask that all utility scale renewable generation systems be subject to the full and complete Conditional Use Permit process rather than the "Minor" Conditional Use Permit Process.

CONCLUSION

Given the substantial concerns identified above, I respectfully requests that the RenEng Ordinance be revised as requested before it is approved. I have provided a copy of my comments to the Acton Town Council and the Association of Rural Town Councils so that these groups are aware of the position that I have taken on the RenEng Ordinance.

I4-21

Thank you for your time and consideration on this matter.

Sincerely,

/S/ Jacqueline Ayer
Jacqueline Ayer

2010 West Avenue K, #701
Lancaster, CA 93536
AirSpecial@aol.com

Response to Comment Letter I4

Jacqueline Ayer
March 9, 2015

I4-1 This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

I4-2 This comment identifies numerous general concerns pertaining to the proposed project (glare, noise, dust, lights, and water resources). These concerns are further addressed throughout the comment letter, and responses are provided below.

This comment also contains concerns regarding the Modifications section of the proposed Zoning Code amendments, which are identical to those raised in Comment C2-33. As such, refer to Response C2-33 for a discussion of the Modifications section of the proposed Zoning Code amendments.

I4-3 The language in this comment is generally identical to the language in Comment C2-46. Refer to Response C2-46 for a discussion of noise effects and requirements.

I4-4 The language in this comment is generally identical to the language in Comment C2-47. Refer to Response C2-47 for a discussion of noise effects and requirements.

I4-5 The language in this comment is generally identical to the language in Comment C2-48, with the exception that the commenter in this letter requests a maximum allowable noise threshold of 45 dBA for wind energy projects, while Comment C2-48 contains a recommendation for a 50 dBA noise threshold. However, because the general content and concerns expressed are consistent between both comments, refer to Response C2-48 for a discussion of noise thresholds in the proposed Zoning Code amendments and the commenter's recommended changes.

I4-6 The language in this comment is generally identical to the language in Comment C2-49. Refer to Response C2-49.

I4-7 The language in this comment is generally identical to the language in Comment C2-50. Refer to Response C2-50 for a discussion of noise effects and requirements.

I4-8 This comment expresses a concern that the proposed Zoning Code amendments impose ridgeline protection provisions for utility-scale solar energy projects and small-scale wind energy projects, but not to utility-scale wind energy projects. This is an incorrect statement about proposed Zoning Code amendments. Furthermore, the

ridgeline requirements have been modified subsequent to the release of the Draft EIR; see Response S1-10. The commenter also expresses concern that the ridgeline protection measures included in the proposed Zoning Code amendments would not apply to the significant ridgelines defined in the Acton CSD. Setbacks between utility-scale ground-mounted wind energy facilities and utility-scale ground-mounted solar energy facilities would be required from significant ridgelines identified in the General Plan, in an applicable Area or Community Plan, or within an applicable CSD. This would include the Acton CSD. Furthermore, since the release of the Draft EIR, an additional ridgeline protection measure has been added to the proposed Zoning Code amendments. This measure applies to utility-scale ground-mounted wind energy facilities and institutes slope setbacks in Hillside Management Areas (see Appendix A and Response S1-10 for details). This measure was added in response to comments received regarding the biological importance of ridgelines, some of which may not be designated as a significant ridgeline in the General Plan, in an applicable Area or Community Plan, or within an applicable Community Standards District. Additionally, as described in Response S1-10, the existing ridgeline protections for small-scale wind energy systems would remain in place under the proposed project. These protections define ridgeline setbacks based on "major ridgelines" as defined in Part 15 of the Zoning Code. Ridgelines can be defined as "major" for a variety of reasons, including their ecological, cultural, and aesthetic value. As such, this existing provision would potentially provide protections for a wider variety of ridgelines.

The proposed Zoning Code amendments have also been modified with respect to the relationship between the proposed Zoning Code amendments and CSD provisions (see Response C2-8 for a discussion of CSDs and the revision that was made to the proposed Zoning Code amendments).

I4-9 This comment expresses a concern that was also expressed in Comment C2-8. Refer to Response C2-8 for a discussion of CSDs.

I4-10 This comment states that the Application Materials section of the proposed Zoning Code amendments require the addition of FAA-required safety lights on utility-scale wind energy facilities. This is a misunderstanding of the proposed Zoning Code amendments: the Application Materials section requires site plans for proposed utility-scale wind energy facilities to depict "FAA-required safety lights, if any." This section of the proposed Zoning Code amendments does not require FAA lights; rather, it states that any FAA lights that are required must be shown on site plans. Refer to Response C2-20 for more information regarding FAA lights. Safety lights would only be required where they are required by FAA.

I4-11 This comment recommends the inclusion of "mitigation land" requirements into the Zoning Code amendments. Incorporation of mitigation lands as described in this comment is not a current requirement for renewable energy projects under the existing Zoning Code. However, the following is a policy in the 2015 Antelope Valley Area Plan Update: "Where development of utility-scale renewable energy production facilities cannot avoid sensitive biotic communities, require open space dedication within Significant Ecological Areas as a mitigation measure." (It is reasonably foreseeable that the 2015 Antelope Valley Area Plan Update will go into effect by July 2015).

As shown in Table 10-2, the permitting requirements and areas where utility-scale ground-mounted projects are allowed would be more stringent under the proposed Zoning Code amendments. For small-scale ground-mounted solar energy projects, avoidance and minimization measures have been incorporated into the provisions of the proposed Zoning Code amendments (see Response S1-12). For renewable energy projects requiring further discretionary approval and CEQA review, setting aside a portion of the project site or a suitable off-site location for conservation could potentially be a mitigation measure or project design feature that addresses significant effects to the environment, if such effects are identified during project-specific CEQA review. Because the proposed Zoning Code amendments would apply to a large and diverse geographic area, requiring mitigation lands and/or specific ratios for mitigation is not feasible for inclusion in the proposed Zoning Code amendments. Habitat mitigation requirements would be determined on a project-by-project basis as necessary and would vary based on site-specific considerations, such as the type of habitat that is being affected and the size of the project. However, the recommendation for mitigation lands to be required by the proposed Zoning Code amendments will be included in the Final EIR for review and consideration by decision makers.

I4-12 The language in this comment is generally identical to that of Comment C2-34, with exception that this commenter recommends limiting small-scale ground-mounted solar energy systems to 15 kW.

For a response to previous recommendations to limit such systems to less than one quarter of an acre, see Response C2-34. For more information about the proposed maximum size of small-scale ground-mounted solar energy systems, see Response S1-12. For information regarding the types of measures that these systems would be subject to, see Responses S1-12 (describes avoidance and minimization measures incorporated into the proposed Zoning Code amendments), S1-14 (describes adherence to state requirements), and S1-16 (describes other applicable County policies).

I4-13 This comment expresses concerns related to the permitted capacity of small-scale wind energy systems that were also expressed in Comment C2-35. See Response C2-35 for a discussion of this topic.

The recommendation to reduce the permitted capacity of small-scale wind energy systems in the Zoning Code amendments to 15kW or less will be included in the Final EIR for review and consideration by decision makers.

I4-14 The language in this comment is generally identical to the language in Comment C2-37. Refer to Response C2-37 for a discussion on soil binders.

I4-15 The language in this comment is generally identical to the language in Comment C2-38. Refer to Response C2-38 for a discussion of dust control provisions for non-access road areas.

I4-16 This comment poses a variety of questions regarding glare and the requirements in the proposed Zoning Code amendments pertaining to glare. See Response C1-2 for a discussion of potential glare effects and glare minimization requirements.

I4-17 The language in this comment is generally identical to the language in Comment C2-45. Refer to Response C2-45 for a discussion of recycled water.

I4-18 The language in this comment is generally identical to the language in Comment C2-3. Refer to Response C2-3 for a discussion of the types of solar technologies addressed in this comment.

I4-19 Future project applicants for utility-scale wind energy projects would be required to show wind facility footprints and heights. As stated in the proposed Zoning Code amendments, project applicants for future utility-scale ground-mounted wind energy facilities would be required to show the topography of the property. For utility-scale structure-mounted wind energy projects, the topography data would not be required. However, these projects would be constructed on existing structures and would not be allowed to exceed the height of the zone in which they are proposed by more than 5 feet, and the site plan would be required to show wind tower setbacks from the perimeter of a roof.

I4-20 The permits required by zone for future renewable energy projects developed pursuant to the proposed Zoning Code amendments are shown in Table 3-3 of the Draft EIR. This table has been revised as part of the Final EIR. (These revisions do not constitute a significant new change resulting in a need to recirculate the EIR, per CEQA Guidelines Section 15088.5.) Projects that would require a Minor CUP prior to

implementation are as follows: small-scale wind energy systems, temporary MET towers, utility-scale structure-mounted wind energy facilities, small-scale ground-mounted solar energy projects proposed in the O-S or W zones, and certain utility-scale structure-mounted solar energy facilities in the R-1 zone. (Utility-scale structure-mounted wind energy facilities would require a CUP instead of a Minor CUP in the R-1 zone.)

The County acknowledges the commenter's objection to making any renewable energy projects allowable upon obtaining a Minor CUP. This comment and the commenter's request for all utility-scale renewable energy projects to require a CUP will be included in the Final EIR for review and consideration by decision makers.

The types of utility-scale projects that would be allowable with a Minor CUP would be limited to those that are structure mounted. This indicates that these projects would be limited in size by the sizes of structures and would be affixed to the tops of existing developments such as residences, carports, commercial buildings, or office buildings. Furthermore, it is noted that the term "utility-scale," as it is defined in the proposed Zoning Code amendments, does not necessarily entail a system that is large in size. Utility-scale renewable energy projects are those that supply energy primarily for off-site use. For further descriptions of these projects and of the assumptions that were used to evaluate them under CEQA, see Sections 3.3.2.4, 3.3.2.5, and 3.3.3 of the Draft EIR. No utility-scale ground-mounted renewable energy projects would be allowable with a Minor CUP.

I4-21 This comment concludes the letter; as such, no response pertaining to the proposed project or to the Draft EIR is required.

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Comment Letter I5

Susan Tae, Supervising Regional Planner
Community Studies North Area
320 Temple T, Room 1354
Los Angeles, CA 90012

Jay Lee, Planner
Renewable Energy Ordinance
Dept of Regional Planning
320 W. Temple St. 13th Floor
Los Angeles, CA 90012

16 March 2015

In Regards to REO 3

Dear Madam and Sir:

My name is Jeff Olesh. As a Los Angeles County resident for six decades, I appeal upon your appointed duties to hear my voice regarding the forth coming implementation of green energy regulations in the unincorporated LA County area. Specifically, I refer to REO 3 (Renewable Energy Ordinance) which is to come before your purview forthwith.

I am the Treasurer and an elected Board Member of the Lake Elizabeth Water Company, as well as a Board Member for the Transition Habitat Conservancy. It is my honor and privilege to be able to serve these two entities. They are both unpaid positions and are important and necessary civic duties, Given this, and the concerns that come from their respective responsibilities, I have a few questions to ask and ideas to consider in regards to the third ROE and its impact upon our rural community and Los Angeles County in general. I5-1

The following are all in the spirit of a sustainable, habitable and reasonable living space for all of us. The following is in regards to ROE Title 22:

Question: Do the Community Standards adopted by the Lakes and Valleys regarding ridgeline setbacks (Sec 60 22.44.143 of 150' vertical and horizontal) override the stated 50' in the ROE document (Sec 22.52.1620 C 6)? And if not, why have community standards to begin with? I5-2

Section C5 of 22.52.1635 (page 57) completely and totally removes any language regarding the impact of utility scale development on birds and bats. The fact of the matter is that there is a ***provable*** negative impact on birds and bats in so far as these projects are concerned. The language from ***Draft 2*** should be reinstated, recognizing that. I5-3

Regarding section C5 i of 22.52.1635 I would like to take issue with the quarter mile setback in the regulation (.25 as listed). The reasonable setback would be 2.0 with respect to sections (a), (b) & (c) (see table re: prop line, scenic drive and highway routes). I5-4

From the same subset table (22..52.1635-A) the on site residence and property line ought to be changed from 2 times the tallest height to 2.0 miles in order to secure a reasonable, safe and livable space. Scenic drives, routes and highways should also be included in this setback. I5-5

Water quality is addressed on page 68. The sections and subsections are beyond me at this point. Quarterly checks by a state licensed hydrologist are paramount given our current global and state situation. I5-6

Thank- You

Jeff Olesh

Response to Comment Letter I5

Jeff Olesh
March 16, 2015

I5-1 This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

I5-2 This comment raises a question about the relationship between Community Standards Districts and the proposed Zoning Code amendments and does not pertain to the adequacy of the environmental analysis in the Draft EIR. The comment also expresses concern about setbacks from ridgelines. The impacts of renewable energy projects on visual resources such as ridgelines are addressed in Section 4.1 of the Draft EIR.

Ridgeline protection measures have been revised subsequent to the release of the Draft EIR. See Response S1-10 for a description of these revisions. Furthermore, the relationship between CSDs and the proposed Zoning Code amendments has also been revised subsequent to the release of the Draft EIR. For a description of those revisions, see Response C2-8.

The proposed Zoning Code amendments provide baseline guidelines for renewable energy projects. Future renewable energy projects requiring further discretionary review (see Section 10.1) would be required to undergo project-level CEQA review and discretionary approval prior to implementation. As such, project-specific mitigation measures may be required to address site-specific impacts such as aesthetics.

I5-3 This comment consists of a request for language regarding birds and bats to be re-incorporated into the proposed Zoning Code amendments. The County acknowledges this request, which will be included in the Final EIR for review and consideration by the decision makers.

Impacts of the proposed project on biological resources are addressed in Section 4.4 of the Draft EIR. As described in this section, future utility-scale renewable energy projects developed pursuant to the proposed Zoning Code amendments would have the potential to result in potentially significant and unavoidable impacts to biological resources, including birds and bats. Under Criterion A and B of the biological impact analysis (Section 4.4.4), avian and bat risks of utility-scale renewable energy projects are described and analyzed. This analysis describes the potential effects associated with the loss of foraging, nesting, and roosting habitat; collision with solar panels, wind turbines, and transmission lines; electrocution from transmission lines;

interruption of bird and bat movement; and indirect effects on birds and bats associated with these facilities.

The proposed Zoning Code amendments provide baseline guidelines for renewable energy projects and are not intended to fully mitigate all potentially significant effects of renewable energy projects that have the potential to occur in the future. Utility-scale ground-mounted solar energy projects and utility-scale wind energy projects (both ground-mounted and structure-mounted) are subject to further project-level CEQA review and discretionary approval prior to implementation under the provisions of the current Zoning Code (see Section 10.1). Under the proposed Zoning Code amendments, these types of renewable energy projects would continue to be subject to project-level CEQA review and discretionary approval on a project-by-project basis. As such, the potential effects of future utility-scale wind energy projects and utility-scale ground-mounted solar energy projects on biological resources would be evaluated in accordance with CEQA on a project-specific basis, and site-specific mitigation measures would be applied as necessary. Furthermore, the proposed Zoning Code amendments include provisions to address the potential effects of utility-scale projects to birds and bats. See Response O1-2 for aspects of the proposed Zoning Code amendments that would address the effects of utility-scale wind energy projects and see Response O1-10 for aspects of the proposed Zoning Code amendments that would address the effects of utility-scale solar energy projects.

I5-4 This comment consists of a suggested revision to the proposed Zoning Code amendments and does not pertain to the adequacy of the environmental analysis in the Draft EIR. The suggested revision will be included in the Final EIR for review and consideration by the decision makers. The proposed setback of 0.25 miles from adopted SEAs, recorded open space easements and publicly designated preserve areas, and riparian areas and wetlands for utility-scale ground-mounted wind energy facilities was developed in consultation with biological experts. The setback length of 0.25 miles from these resources is similar to or more stringent than similar setbacks required in wind energy ordinances adopted by other counties in California. Refer to the Marin County Code, Ordinance No. 3548, adopted in August 2010 and the San Diego County Wind Energy Ordinance, adopted in May 2013. The effects of utility-scale ground-mounted wind energy projects on biological resources are evaluated in Section 4.4.4 of the EIR, and several potentially significant effects were identified. As mentioned in Response I5-3, all future utility-scale ground-mounted solar energy projects and utility-scale wind energy projects (both ground-mounted and structure-mounted) would undergo further CEQA review on a project-by-project basis. Site-specific impacts would be evaluated and mitigation measures would be identified, as

necessary, for each project. Such measures could potentially include increased setbacks. Additionally, mitigation is provided in the EIR to ensure that biological impacts are adequately evaluated and that appropriate measures are applied during project-specific environmental review (see MM BIO-1). MM BIO-1 provides recommendations for standard mitigation measures that can be applied to future projects if significant impacts are identified during CEQA review.

I5-5 This comment consists of a suggested revision to the proposed Zoning Code amendments and does not pertain to the adequacy of the environmental analysis in the Draft EIR. The suggested revision will be included in the Final EIR for review and consideration by the decision makers. It is noted that setbacks of two times the facility height from habitable structures and property lines is generally consistent with or more stringent than similar setbacks required in wind energy ordinances adopted by other counties in California. Refer to the Marin County Code, Ordinance No. 3548, adopted in August 2010 and the San Diego County Wind Energy Ordinance, adopted in May 2013.

As discussed in the Draft EIR, certain types of renewable energy projects developed in proximity to scenic resources and residential uses could result in impacts, including impacts related to aesthetics and noise. Aesthetic impacts of renewable energy projects are addressed in Section 4.1 of the Draft EIR and impacts related to noise are addressed in Section 4.12 of the Draft EIR. The Draft EIR analysis concluded that several types of renewable energy project types would result in a potentially significant and unavoidable impact to both aesthetics and noise. As mentioned in Response I5-3, all future utility-scale ground-mounted solar energy projects and utility-scale wind energy projects (both ground-mounted and structure-mounted) would undergo further CEQA review on a project-by-project basis. Additional setbacks may be proposed and evaluated at that time, depending on the site-specific conditions of future projects.

I5-6 This comment pertains to water quality and also sets forth a suggested Zoning Code provision. The comment does not pertain to the adequacy of the environmental analysis in the Draft EIR.

The potential impacts of the proposed project on water quality are considered and addressed in Section 4.9 of the Draft EIR. The analysis concluded that water quality impacts would be less than significant through compliance with required water quality measures, as discussed in Section 4.9 of the Draft EIR (County Grading Code, County Low Impact Development Ordinance, National Pollutant Discharge Elimination System compliance, and applicable municipal separate storm sewer system permit requirements).

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Comment Letter I6

From: Margaret Rhyne
To: Emma Howard; evizcarra@lacbos.org; Jay Lee; Carl Nadela; NHickling@lacbos.org
Cc: bigcpm23@gmail.com; RHague7@aol.com; helenhenry@mac.com; jolesh1@yahoo.com; Californios100@aol.com; j_a_c_1940@yahoo.com; jmicalvert@gmail.com; jim.dodson@verizon.net; kj.allen96@gmail.com; kportwest@roadrunner.com; ontishima1775@gmail.com
Subject: Distributed Solar Alternative
Date: Wednesday, March 18, 2015 10:01:37 PM
Attachments: DRECP Alternative Letter-FEB.pdf
18-june-09_CPUC_press release_approval SCE 500 MW urban PV program.pdf
Powers-2014-methodology utilized to calculate the PV technical potential_39,500 MW.pdf

As part of the process of reviewing the Desert Renewable Energy Conservation Plan, many conservation groups began to have a dialogue concerning some of the assumptions reflected in the DRECP regarding the amount of industrial scale renewable energy still needed on desert lands. That conversation led to a ground breaking document written by the Basin and Range Watch Group and endorsed by major conservation groups including the Center for Biological Diversity, California Native Plant Society, Wildlands Conservancy, Desert Tortoise Council, Desert Protective League, the Mojave National Preserve Conservancy and the leaders of the Desert Committee of the Sierra Club. I am attaching that document. Also attached are a chart and press release referenced in the document. I hope that this can be passed along to the Los Angeles County Planning Commissioners as well as the planners involved in the LA County REO. **It may answer some of the questions I heard expressed at today's hearing**. This letter demonstrates the false assumptions that have been made to attempt to validate the sacrifice of more open space to corporate industrialization in the name of green energy.

I6-1

Thank you,
Margaret Rhyne
President, Poppy Reserve/ Mojave Desert Interpretive Association

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Response to Comment Letter I6

Margaret Rhyne
March 18, 2015

I6-1 The commenter states that she has provided County staff and Commissioners with a report written by the Basin and Range Watch Group in response to the Desert Renewable Energy Conservation Plan (DRECP). The subject of this report is "request for a new Desert Renewable Energy Conservation Plan Alternative." The commenter also submitted two attachments that were referenced in the report, a table titled "Parking Lot Solar Potential in California" and a press release from the California Public Utilities Commission titled "CPUC Approves Edison Solar Roof Program."

The commenter states that the report contains information that may answer some of the questions that were raised at the Regional Planning Commission hearing held on March 18, 2015. The commenter does not raise any specific issues related to the proposed Zoning Code amendments or the Draft EIR prepared for the proposed Zoning Code amendments.

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Comment Letter I7

R 2014-01160-(1-5)
J. Lee/R. Ruiz

Kathleen Trinity
4343 Fairlane St.
Acton, CA 93510

March 18, 2015

RECEIVED
MAR 18 2015
BY:

Mr. Jay Lee
Los Angeles County
Department of Regional Planning
320 West Temple St.
Los Angeles, CA 90012

Dear Mr. Lee

I am writing in regard to your Notice of Completion and Availability of the Draft Environmental Impact report (SCH#2014051016).

I object to any policy that would allow the development or placement of large scale and/or multiple wind turbines in any part of Acton, CA, including any mountains and hills (the Sierra Pelona Mountains, the San Gabriel Mountains, Parker Mountain) or any other included or adjacent mountains and hills in the general area. I7-1

Not only would such wind turbines be contrary to Acton's CSD's, thereby violating the wishes of the residents for a rural setting and lifestyle, but would pose a significant threat to wildlife and wild life habitat. The surrounding mountains and included hills of Acton are covered with juniper trees, grasses, chaparral, scrub oak, and some California live oak that provide habitat for mule deer, mountain lions, bobcats, coyotes, rabbits, various other rodents, reptiles, some of which are endangered, and even birds, bats and insects. The ecosystem is fragile in the sense that destruction of it can take decades to restore. The area, especially the Sierra Pelona Mountains, provide a natural corridor for mule deer, bobcats, and mountain lions. This habitat is of special value considering the large scale loss of habitat in the San Gabriel Mountains Station Fire of August 2009. Loss of habitat is insidious because in this area it leads to habitat fragmentation. I7-2

Of particular concern to me is any policy would allow significant dangers to birds and bats, and their habitat. Most scientific estimates, based on studies and wind turbine company documents estimate that over 573, 000 birds are killed wind turbines/year (www.live science.com/31995). Please consider the following as evidence against large/multiple wind turbines in this area: I7-3

1. Canada Geese fly over Acton from the San Fernando Valley, often circling in the Pelona Mountain ridges, even sometimes touching ground. They can easily be observed every February or March from Red Rover Mine Canyon, Shannon Valley, and Crown Valley, among other sites in Acton. With changing climate conditions, it would be hard to predict when to shut down turbines, and even the towers and blades would obstruct their path and/or pose the threat of collision. Given that they fly in flocks at heights above and below wind towers, the impact would be multiple in a single incident.

2. Red Tailed Hawks make the hills, canyons, valleys and mountainsides their homes and flyways. Because raptors find it efficient to glide on thermal and prevailing gentle winds to conserve energy for hunting, these areas are extremely important to them (National Audubon, PA National Audubon, 3-8-2012). Not only are Red Tailed Hawks majestic and admirable, but they provide necessary population control of the numerous and various mice and rats in hillside dwellings. Also, to place large scale/ multiple wind turbines in the area is to change raptor behavior since they tend to follow rodents who often congregate at the base of wind towers. The change of behavior, of course, severely increases the danger of mutilation and death. Raptors tend to hatch only two chicks, so the loss of a parent could very well mean a triple loss if the chicks are lost. I7-4

3. Barn Owls are another raptor common to the area. Again, they are extremely important in rodent control because most mice and rats are nocturnal, as are these raptors.

4. Quail fly in flocks but inhabit the scrub, where they also lay eggs. They are very sensitive birds, especially to noise, so their habitat would be severely threatened.

5. Brewer's Sparrows and other sparrows live and feed in scrub.

6. Scrub (Blue) Jays live and feed in scrub.

7. Western Bluebirds, California Thrashers, various Wrens, Goldfinches, Mockingbirds, Woodpeckers and Roadrunners frequent and depend on the scrub.

8. Mourning Doves, Barn Swallows, Rock Doves, Blackbirds and Ravens are higher flyers that would be endangered by said wind turbines.

9. Bats have been part of the Acton ecology for years. Their ability to keep insect populations in check is of value. Many have been in danger of species collapse in recent years. Their flocks would be threatened further by said wind turbines.

I7-4 Cont.

While there are many more birds and other animals that would be threatened by implementation of the proposed policy, there is a most important consideration. Wisdom and courage to preserve natural and wild areas must prevail to inform and guide policy, not utility interests or quick, thoughtless agency directives. Acton and the surrounding area is one of the last rural and semirural areas of Los Angeles County. Not only does the area provide recreational opportunities for nonresidents, but the residents who have chosen to live in Acton prize the mountains, canyons, valleys and open natural spaces. Natural vistas unobscured by utility and other structures provide a means of relieving stress and psychological centering. Knowing that wildlife is abundant and secure is part of the human quality of life in a rural area. Rather than making the mistake of degrading the natural character of this area, and trying later to fix the mistake, wisdom would dictate a much more careful and respectful policy be pursued. Will we make the same mistakes as in the Altamont Pass where at least 116 golden eagles, and over 500 other raptors were killed per year in a study in a study released in 2003? (www.iberica2000.org/documents/ELOICA/ALTAMONT/Dr Smallwood, 2003). Will we follow the

I7-5

example of Chokecherry, Wyoming where scientists estimate that 5,4000 birds will be killed/year by wind turbines at this one location (basinandrangewatch, February March 2015) Let's get it right now, not try a fix up later when it's too late.

I7-5 Cont.

Sincerely,

Kathleen Trinity

Response to Comment Letter I7

Kathleen Trinity
March 18, 2015

I7-1 The commenter states that she objects to any policy that would allow wind turbines in the community of Acton, including nearby mountains such as the Sierra Pelona Mountains, the San Gabriel Mountains, and Parker Mountain.

The proposed project does not entitle or proposed any wind turbines. All future wind energy projects developed pursuant to the proposed Zoning Code would be required to undergo further discretionary review and project-specific CEQA review prior to implementation. Wind turbines are allowed in many areas of the County under the provisions of the current Zoning Code (see Table 10-2). Changes in the zones in which such projects would be allowed are shown in Table 10-3.

The proposed Zoning Code contains a variety of siting constraints and development standards which would serve to limit the areas in which wind turbines may be located, particularly related to hillside areas. Utility-scale wind energy projects would not be allowed in the O-S and W zones (under the provisions of the current Zoning Code, utility-scale wind energy projects are allowed upon discretionary approval in the W zone). These zones, particularly the W zone, encompass much of the hillside and mountain areas throughout the County. Furthermore, utility-scale ground-mounted wind energy facilities would be prohibited from being developed in SEAs (these projects are currently allowable in SEAs). Under the General Plan Update, which is anticipated to go into effect in July 2015, the SEA boundaries in the County would be expanded relative to existing boundaries, which would render this prohibition even more restrictive for utility-scale ground-mounted projects. Small-scale wind energy projects would continue to be prohibited from the W zone. The proposed Zoning Code amendments set forth a variety of development standards for utility-scale wind energy projects where no provisions currently exist. These include required setbacks from significant ridgelines and from certain ridgelines in Hillside Management Areas (see Appendix A). See Responses O1-2 and O1-5 for more information about site selection for future wind energy projects.

For small-scale wind energy projects, the existing regulations that are in place in Part 15 of the Zoning Code would remain under the proposed project (see the Preface of the Final EIR for details about why the existing provisions for small-scale wind energy systems would remain in place under the proposed project.) However, these existing provisions include ridgeline protection measures. Furthermore, under the proposed

Zoning Code amendments, bird and bat protection provisions would be added for small-scale ground-mounted wind energy systems.

For information purposes, it is noted that the effects of wind energy projects on environmental resources that are typically located in hillside areas, such as scenic resource and biological resources, are addressed in the EIR.

I7-2 This comment states that wind turbines would be contrary to Acton's CSDs. Refer to Response C2-8 for a discussion of the relationship between the proposed Zoning Code amendments and CSDs. This comment also lists some of the biological resources and may be found in the hillside areas within and near the community of Acton. Potential impacts to the biological resources within the County are addressed in Section 4.4 of the Draft EIR. While potentially significant and unavoidable impacts were identified, future wind energy projects would be subject to further discretionary review and CEQA review. At that time, project-specific mitigation measures would be applied to address site-specific significant effects to biological resources, if any are identified during the CEQA process.

See Response O1-2 and O1-5 for a discussion of site selection for future wind energy projects.

I7-3 The Draft EIR addresses the impacts of future renewable energy projects developed pursuant to the proposed Zoning Code amendments on biological resources, including sensitive and special-status bird and bat species. While significant and unavoidable impacts to biological resources were identified, it is noted that not implementing the proposed Zoning Code amendments (i.e., allowing the Zoning Code to remain as is) would result in increased impacts to biological resources (see Table 6-1 in the Draft EIR). Furthermore, wind turbines, which are specifically addressed in this comment, would be subject to future discretionary review and CEQA review at the project level, during which mitigation measures may be proposed to address any significant effects to biological resources that are identified pursuant to CEQA.

I7-4 This comment consists of a list of bird species and descriptions of those species. The list was submitted "as evidence against large/multiple turbines" in and near the community of Acton. The effects of wind turbines on bird and bat species are discussed in Section 4.4 of the Draft EIR. While the analysis in the Draft EIR did not mention each of the individual species listed by the commenter, effects of wind turbines on these species are encapsulated in the analysis provided under the following CEQA threshold criteria: Would the project 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. While significant and unavoidable effects were identified for this CEQA threshold, wind turbines would be subject to future discretionary review and CEQA review at the project level, during which time mitigation measures may be proposed to address any significant effects to biological resources that are identified pursuant to CEQA. Additionally, mitigation is provided in the Draft EIR to ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future utility-scale ground-mounted renewable energy facilities (see MM BIO-1).

I7-5 This response consists of a description of the resources in and around the community of Acton, such as biological resources, recreational opportunities, and a rural landscape. The comment also mentions two wind energy projects that have been implemented (Altamont Pass in central California and Chokcherry in Wyoming) and provides estimates for the number of bird kills that have occurred at those project sites.

The responses provided above (I7-1 though I7-4) address siting considerations for wind turbines and the potential for such projects to affect birds and bats.

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Comment Letter I8

RIDGELINES

I8

The Acton CSD contains specific provisions that protect "significant ridgelines" and it clearly defines what constitutes a "significant ridgeline" within the Community of Acton.

However, the draft Ordinance only protects ridgelines from low-profile solar projects and small scale wind projects. It specifically omits ridgeline protection provisions for utility scale wind projects. In other words, this ordinance authorizes 500 foot high wind towers on Acton's significant ridge lines "by right".

I8-1

This ordinance does not protect ridgelines; in fact, it paves the way for their destruction.

R2014-01160-(1-5)
J. Lee/R. Ruiz

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BY:

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THE ORDINANCE FAILS TO IMPOSE THE OFFSET REQUIREMENTS THAT ARE NOW IMPOSED ON SINGLE HOME DEVELOPMENTS

Currently, the County requires the acquisition of open space "mitigation land" at ratios of up to 2:1 by property owners that seek to create large (>5 acre) residential lots through the minor land division process .

Yet, incredibly, no such mitigation requirements are imposed on any renewable energy projects, even though such projects result in the wholesale destruction of thousands of acres of pristine open space areas!

The County cannot have it both ways.

If the County is going to impose stringent open space "mitigation land" requirements to offset the negligible impact of large lot minor land divisions, then it must impose equally stringent open space "mitigation land" requirements to offset the astoundingly devastating impacts of energy projects, and these requirements must be reflected in the Ordinance

I8-2

CUP VS MINOR CUP REVIEW FOR UTILITY SCALE PROJECTS. 3g 8

The draft Ordinance establishes that utility scale structure mounted wind projects are eligible for the "Minor Conditional Use Permit" process.

No utility scale energy project should ever be eligible for the "Minor" CUP process. Why? Because the nature of utility sale projects are ***never*** "limited in scope and impacts",. So allowing them to undergo the "Minor" CUP process ***is explicitly contrary*** to the stated intent of the minor CUP process, which is intended to address only applications that are limited in scope and impacts.

All utility scale renewable generation systems be subject to the full and complete Conditional Use Permit process rather than the "Minor" Conditional Use Permit Process.

I8-3

3

WATER 498

The draft Ordinance does not address the ***enormous*** quantities of water that are required to operate solar projects.

Allowing developers to obtain water from any source that they find convenient without regard for the impacts that such significant water withdrawals may have on the water table and domestic water wells is a substantial deficiency.

The ordinance should be require the use of recycled water on solar facilities that are trucked in via suitably marked trucks (perhaps painted purple to match the fire hydrants) so that observers can monitor for compliance.

I8-4

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5/9 8

NOISE

The consideration of noise impacts in the Draft Ordinance is inadequate:

The noise limit does not apply to utility scale wind projects, which are the biggest problem. The noise limit is too narrowly constrained in the draft Ordinance, and must be expanded to address all utility-scale generation projects. I8-5

It considers only noise impacts to existing inhabited dwellings, and ignores outdoor uses such as equestrian facilities (barns, corrals, trails), animal rescue facilities, etc.

It ignores impacts to adjacent land that are currently undeveloped. It is likely that such land will be rendered worthless given the high noise threshold that the draft ordinance allows. Any noise limit must be a fenceline limit I8-6

It establishes a very high (60 dB) noise threshold that is entirely unsuitable for rural areas. Rural ambient noise levels are typically less than 45 dBA, so permitting a 15 dBA increase will triple the noise level in rural areas. To be clear, 60 dBA is the noise level one experiences 3 feet from an operating clothes dryer, and the draft Ordinance allows this continuous and exceptionally loud "noise overlay" in rural areas where the existing noise profile is virtually non-existent. The limit must be set at 45 dBA rather than 60. I8-7

The draft Ordinance does not require any project proponent to provide noise data as part of the application process, nor does it require a "followup" assessment at the site to confirm that noise limits are met. Worse yet, it provides no backstop protections to ensure compliance with this noise limit over time and after the wind turbine bearings and contact surfaces are worn down and no longer "true". I8-8

2

6 of 8

FAA LIGHTS

The draft Ordinance includes "FAA-required safety lights" on utility scale wind projects. This poses a problem in that utility companies frequently state that FAA lights are required when in fact they are not.

At the ATC meeting 2 just nights ago, Southern California Edison admitted that the FAA did NOT require them to install lights on all their new transmission towers in Acton; in fact, these lights were installed to protect SCE from liability.

These FAA lights create terrible problems for the surrounding homes by beaming bright red lights into living and sleeping spaces, eliminating night vision capabilities, and simply destroying the homeowners' ability to enjoy the out-of-doors in the evening and at night.

The County must take every possible action to avoid the installation of FAA lights and diligently confirm any applicant claim that "FAA-required" lights are indeed required. The County must also seek alternatives to such lights, otherwise, the entire point of the "Dark Sky" rural lighting ordinance is completely lost.

I8-9

4

9 9 8

DUST

The draft Ordinance authorizes the use of "soil binders" to control dust on access roads and other disturbed areas. However, soil binders in this application are not appropriate:

They do not hold up to pedestrian or vehicular traffic, and are not effective on access roads.

They do not penetrate compacted soils, and are therefore ineffective.

Their performance is soil-texture specific; some do not work on sandy soils, and others do not work on silty soils. Both soil types can be collocated within the Antelope Valley, so it is unlikely that an effective soil binder will be found.

Soil binders do not perform well in low humidity areas, so are inappropriate for the high desert climate of the Antelope Valley.

The use of soil binders may have water quality impacts due to their chemical makeup. Throughout the Antelope Valley, residents rely on wells for drinking water, therefore authorizing the use of soil binders in the Antelope Valley without first documenting the potential impacts of such materials on drinking water quality is wholly inappropriate.

I8-10

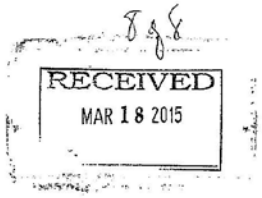
It is also a problem that the draft Ordinance relies on existing vegetation to control dust levels. This presumes that existing vegetation which thrives on the full sunlight of the Antelope Valley and relies on dew condensation will continue to survive when covered over entirely by solar panels which eliminate both light and condensation.

I8-11

Worse yet, the draft Ordinance contains no "back up" dust control provisions that must be implemented if (or rather when) the native vegetation dies out

I8-12

7



GLARE
The Draft Ordinance states:

> "All utility-scale solar energy facilities shall be designed and located in such a way to minimize reflective glare toward any habitable structure on adjacent properties as well as adjacent street rights-of-way."

This language is too vague and imprecise
What does it mean to "minimize" glare? Glare either exists or it does not. And how do you minimize it anyway?

What steps will the County require as proof that glare has indeed been "minimized? There is no point in imposing a condition that cannot be effectively assessed to establish compliance.

Why does this provision apply only to "habitable structures" on adjacent properties? What about undeveloped adjacent lands that may be rendered undevelopable because of glare problems?

What does "adjacent" mean, anyway, and how far away must property be to not qualify as "adjacent"?

Given the fact that glare impacts often occur at considerable distances from a source (and not merely "adjacent" to it), why does this ordinance consider and address only glare impacts that occur adjacent to the generation facility?

Above all, why does this ordinance allow any glare at all?

I8-13

8

Response to Comment Letter I8

Anonymous 1
March 18, 2015

I8-1 This comment contains similar concerns to those expressed in Comment I4-8. As such, see response I4-8 for a discussion of significant ridgeline protection measures. This comment additionally notes that the proposed Zoning Code amendments would "authorize 500 foot high wind towers on Acton's significant ridgelines 'by right.'" The proposed Zoning Code amendments do not entitle or propose wind turbines. As discussed in Section 3.3.2 of the EIR, any wind turbines proposed within the County's jurisdiction would be subject to further discretionary approval. The "by right" components of the proposed Zoning Code amendments consist of small-scale solar energy systems and utility-scale structure-mounted solar energy systems.

Section 4.1 of the Draft EIR addresses the effects of future wind turbines developed pursuant to the proposed Zoning Code amendments on viewsheds.

I8-2 This comment expresses similar concerns as those that are expressed in Comment I4-11. See Response I4-11 for a discussion of mitigation lands.

I8-3 This comment expresses similar concerns as those that are expressed in Comment I4-20. See Response I4-20 for a discussion of Minor CUPs and utility-scale renewable energy projects.

I8-4 The language in this comment is generally identical to the language in Comment C2-45. Refer to Response C2-45 for a discussion of recycled water.

I8-5 The language in this comment is generally identical to the language in Comment C2-46. Refer to Response C2-46 for a discussion of noise effects and requirements.

I8-6 The language in this comment is generally identical to the language in Comment C2-47. Refer to Response C2-47 for a discussion of noise effects and requirements.

I8-7 The language in this comment is generally identical to the language in Comment C2-48, with the exception that the commenter in this letter requests a maximum allowable noise threshold of 45 dBA for wind energy projects, while Comment C2-48 contains a recommendation for a 50 dBA noise threshold. However, because the general content and concerns expressed are consistent between both comments, refer to Response C2-48 for a discussion of noise and of the recommendations given by commenters.

I8-8 The language in this comment is generally identical to the language in Comment C2-50. Refer to Response C2-50 for a discussion of noise effects and requirements.

I8-9 This comment expresses similar concerns as those that are expressed in Comment C2-20 and I4-10. See Responses C2-20 and I4-10 for information regarding FAA-required safety lights.

I8-10 The language in this comment is generally identical to the language in Comment C2-37. Refer to Response C2-37 for a discussion on soil binders.

I8-11 The language in this comment is generally identical to the language in Comment C2-38. Refer to Response C2-38 for a discussion of dust control provisions for non-access road areas.

I8-12 The concern expressed in this comment was also included in Comment C2-38. Refer to Response C2-38 for a discussion of dust control provisions.

I8-13 This comment poses a variety of questions regarding glare and the requirements in the proposed Zoning Code amendments pertaining to glare. See Response C1-2 and H2 for a discussion of potential glare effects and glare minimization requirements.

Comment Letter I9

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THE THRESHOLD FOR AVOIDING COMPLIANCE IS TOO LOW

The draft Ordinance does not adequately protect rural communities from the glare, noise, dust, lights, and water resource impacts of renewable energy projects, and it facilitates the industrialization of rural communities, the ruination of significant ridgelines, and the violation of Community Standards District ("CSD") protections.

Worse yet the draft Ordinance allows energy developers to sidestep the few protections that do exist by simply requesting a "modification" to the requirements based on a claim that they "unreasonably interfere" with development., The only basis for denying such requests is if the County finds them to be "contrary to the purpose" of the Ordinance. However, the County will ***never*** be able to make such a finding because the entire purpose of the Ordinance is to "support and facilitate" the development of Energy projects

I9-1

The circular structure of this draft ordinance ensures that large-scale energy projects will proceed quickly, with little or no community input, and without regard for community impacts. This is completely unacceptable, and the draft Ordinance must be revised to strengthen (rather than decimate) protections for established rural residential communities like Acton.

2074

2.5 ACRES FOR A "SMALL SCALE" SOLAR SYSTEM IS TOO LARGE

The Draft Ordinance allows "Small-Scale Solar Energy Systems" to occupy up to 2.5 acres of land, and this limit can be easily increased merely by a "minor" CUP.

However, the amount of energy generated by 2.5 acres of solar arrays is nearly 1 gigawatt hour per year, which is enough to support 75 homes.

Obviously, generation from 2.5 acres of solar panels would greatly exceed the on-site energy "need" of ***any*** residential parcel, so such systems on a residential or agricultural lot implicitly fail to meet the definition of "Small-scale" system. Besides this, allowing 2.5 acres in a residential area would inappropriately introduce significant glare, dust, and water use impacts.

For these reasons, small scale solar systems on residential and agricultural parcels should be limited to 15 kW, which is more than sufficient to power 3 homes, or one home with accessory uses that impose significant energy demands.

I9-2

3/4

CSD PROVISIONS MUST PREVAIL

CSDs are established for developed residential areas, and they include provisions that are intended to protect these residential uses from incompatible industrial development such as utility-scale generation projects.

Nonetheless, the draft Ordinance subordinates all CSD provisions, and in instances where the draft Ordinance regulates matters that are also addressed by CSD provisions, the draft Ordinance prevails.

The draft Ordinance must be revised to ensure that CSD provisions prevail. The reasons are obvious; granting industrial uses the ability to sidestep community protection provisions of any CSD "by right" undermines the entire CSD structure.

Any renewable energy proponent wishing to develop a project that does not comply with a CSD provision should be required to go through the variance process just like any other project proponent that wishes to avoid CSD requirements.

Energy developers should not be granted a perfunctory "pass" to allow them to completely ignore the very development standards that communities have fought hard for and which protects residents from incompatible development.

I9-3

50 kW FOR A "SMALL SCALE WIND ENERGY SYSTEM" IS ENTIRELY TOO LARGE

4 of 4

The draft Ordinance permits small-scale wind systems with 50 kW capacities.

The California Energy Commission classifies 50 kW wind energy systems as "Intermediate Utility Scale" systems, therefore 50 kW is hardly an appropriate limit for a "Small Scale" System.

A 50 kW wind system produces enough energy to support 10 homes.

Obviously a primary purpose of installing such a large system on residential or agricultural properties would not be to generate power for "on-site use" which is explicitly contrary to the definition and stated intent of "small scale" systems.

The size of "Small-Scale" wind systems that are permitted on residential/agricultural properties should be limited to 15 kW or less, which is more than sufficient to power 3 homes, or one home with accessory uses that impose significant energy demands.

5

I9-4

Response to Comment Letter I9

Anonymous 2
March 20, 2015

I9-1 The language in this comment is generally identical to that of Comment I4-2. See Response I4-2.

I9-2 The language in this comment is generally identical to that of Comment I4-12 and are similar to those expressed in Comment C2-34.

For more information about the proposed maximum size of small-scale ground-mounted solar energy systems, see Response S1-12. For information regarding the types of measures that these systems would be subject to, see Response S1-12 (describes avoidance and minimization measures incorporated into the proposed Zoning Code amendments), S1-14 (describes adherence to state requirements), and S1-16 (describes other applicable County policies). For a response to previous recommendations to limit such systems to 15 kW, see Response I4-12. For a response to the recommendation to limit such systems to less than one quarter of an acre, see Response C2-34.

This comment also includes an additional sentence stating that "allowing 2.5 acres in a residential area would inappropriately introduce significant glare, dust, and water use impacts." The effects of small-scale ground-mounted solar energy systems relative to these three issue areas (glare, dust, and water use) are addressed in Draft EIR Sections 4.1 (glare); Sections 4.3 and 4.6 (dust); and Sections 4.9 and 4.17 (water supply and use).

I9-3 This comment expresses a concern that was also expressed in Comment C2-8. Refer to Response C2-8 for a discussion of CSDs.

I9-4 See Response C2-35 for a discussion small-scale wind energy systems size.

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Comment Letter I10

From: Paul Henreid
To: Jay Lee
Cc: Susan Tae; rodninahallgren@gmail.com
Subject: Renewable Energy Ordinance
Date: Friday, March 20, 2015 7:53:45 AM

Dear Mr. Lee,

The REO is supposed to encourage using small-scale (on-site) solar/wind energy. However, the ordinance regulates small-scale solar/wind in ways it does not regulate utility-scale solar/wind. For example, the REO sets a maximum lot coverage for small-scale solar at "25 percent of the lot or parcel of land or 2.5 acres, whichever is lesser." The REO states "A small-scale solar energy system that exceeds the maximum lot coverage ... requires approval of a Minor Conditional Use Permit." Why limit on-site solar like this at all? Could this language be removed? I10-1

Another bird regulation applies to small-scale wind, but not utility-scale wind: "No part of the small-scale wind energy system shall be closer than one mile from a known golden eagle nest site." What is a known golden eagle nest site? Where are the golden eagles? Is there a web site announcing their location? Do golden eagles have GPS microchips like the dogs in LA county to alert the County of their whereabouts? I10-2

Do golden eagles move nests or make new nests? One mile is a long distance. Is one mile necessary to protect golden eagles from small-scale structure-mounted wind towers that do not "exceed the height limit of the zone by more than five feet?" The REO only requires small-scale wind to be 300 feet from "bat-roosting sites." There is a big difference between 300 feet and 1 mile. Do small-scale wind towers require more stringent golden eagle protection than from utility scale? Can the language be removed or reduced from 1 mile to 1000 feet? I10-3

I look forward to your comments.

Thank You,

Paul Henreid, Esq.
(661) 724-1930

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Response to Comment Letter I10

Paul Henreid
March 20, 2015

I10-1 The comment expresses concerns that the proposed Zoning Code amendments include limitations on small-scale renewable energy projects that are not being applied to utility-scale projects. The commenter expresses concern that limiting the size of small-scale projects, particularly small-scale solar energy projects is contrary to the goal of encouraging the development of small-scale projects. The commenter suggests that the language limiting the size of small-scale ground-mounted solar energy systems be removed from the proposed Zoning Code amendments.

As indicated by this commenter, one of the objectives of the proposed project is to "encourage the development of small-scale and structure-mounted renewable energy systems and facilities through a streamlined and standardized permit review process" (see Section 3.1 of the Draft EIR for a list of the project objectives). As shown in Table 10-2, small-scale renewable energy systems (both ground-mounted and structure-mounted) and utility-scale structure-mounted renewable energy systems are generally allowed in more zones than utility-scale ground-mounted renewable energy systems. Furthermore, these project types, especially small-scale solar and utility-scale structure-mounted solar, would be allowable without discretionary review in most zones. The different permitting requirements that would be established for different types of renewable energy projects is intended to facilitate small-scale and structure-mounted projects.

Because small-scale ground-mounted solar energy systems would be permitted without further discretionary approval in most zones, removing size constraints for these projects could potentially facilitate ground-mounted projects that are large in size and that have not been evaluated through project-specific discretionary review or CEQA review (see Response S1-15 for further information about the size limitations for small-scale ground-mounted solar energy systems). While small-scale ground-mounted solar energy systems would be limited in size by the definition of "small-scale" (systems providing primarily for on-site uses), the variety of land uses in the County (such are warehouses and townhouse complexes) could potentially create a future situation in which a small-scale ground-mounted solar energy system resulted in a project that is large in size. While the proposed project aims to facilitate small-scale and structure-mounted renewable energy systems, another project objective is to "minimize the potential for land use conflicts and environmental impacts that may arise through the development of renewable energy systems and facilities."

The maximum size that is established for small-scale ground-mounted solar energy systems balances these two objectives by minimizing ground disturbance to the extent feasible while still ensuring that the proposed project is consistent with the project objectives.

While this comment does not pertain to the analysis in the Draft EIR, the recommendation to remove the size limits of small-scale solar energy systems will be included in the Final EIR for review and consideration by decision makers.

I10-2 The statement made in this comment is incorrect. The standards for both small-scale ground-mounted wind energy systems and utility-scale ground-mounted wind energy systems include the requirement cited by the commenter.

I10-3 The comment raises specific questions about the rationale for the 1-mile setback from known golden eagle nests required in the ordinance. Golden eagles are a fully protected species under the California Fish and Game Code. CDFW has jurisdiction over golden eagles. Except for the purposes of necessary scientific research, take of golden eagles (and all fully protected species) is prohibited by CDFW. Golden eagles are also protected under the federal Bald and Golden Eagle Protection Act. As identified in Section 4.4 of the Draft EIR and in numerous comment letters received, wind turbines have the potential to result in significant effects to biological resources, including avian species such as golden eagles.

As described in the biological resources existing conditions (Section 4.4.1), golden eagles are known to be at risk of collision with wind turbines due to their soaring and foraging behaviors and are also highly sensitive to activities near active nests. In response to specific inquiries from the comment, existing databases of special-status species occurrences are available and updated on a statewide basis and would be available for querying known golden eagle locations. Golden eagles have relatively high nest site fidelity, which means they tend to use the same nest or alternative nests in the same general location from year to year. As a protected species and due to their behaviors and known risk of collision, a 1-mile setback was considered justified for the proposed ordinance.

Comment Letter I11

The Regional Planning Commission
County of Los Angeles
320 W. Temple Street
Los Angeles, California 90012
Electronic Transmittal of 6 [six] pages
[c/o Ms. Rosie Ruiz: RRuiz@planning.lacounty.gov]

March 20, 2015

Subject: The Draft Renewable Energy Ordinance and Information Submitted Pursuant to Matters Raised in the March 18, 2015 Public Hearing

Dear Planning Commissioners;

I appreciate the time and effort that all of you took to address community concerns in your consideration of the Draft Renewable Energy Ordinance at the March 18 public hearing. The matter was continued due to uncertainties regarding potential conflicts with adopted standards districts as well as uncertainties regarding the possibility of preemption of some ordinance provisions by state law. This letter is intended to address these concerns, and also provide supplemental information which clarifies certain remarks and representations that were made by staff and County Counsel. In the absence of a transcript, I am relying on my notes, which I believe are reasonably accurate. I11-1

Conflicts with State Law

Staff and County Counsel made a number of remarks regarding state law and its relation to renewable energy standards, wind turbine classification and permitting, and solar energy development which seemed to give the impression that state law largely preempts the County's authority to regulate renewable projects. This is not true, as evidenced by the following: I11-2

- There are no state laws which regulate or establish wind turbine size classifications; in such matters, the California Energy Commission relies on "industry standards" which establish that a 50 kW wind turbine is an intermediate utility-scale system.
- There is nothing in state or federal law which limits the County's ability to regulate the environmental, health, safety, and aesthetic impacts of wind energy systems. Nor are there any state or federal laws which preempt or prevent the County from establishing a residential wind turbine limit of 15 kW (as I have requested) I11-3
- Staff displayed a slide indicating the state's renewable energy standard of 33% by 2020, and indicated that this standard somehow applies to the County's ordinance development process. However, the 33% renewable energy standard does not apply to, or control, any County action. In fact, the 33% standard applies specifically to energy utilities (such as Southern California Edison), and it requires that these utilities obtain a fixed percentage of the energy they deliver from renewable resources. It does not impose any requirements or limitations on local agencies. I11-4

1

- AB2188 (enacted just a few months ago) defines "small" solar installations as 10 kW, and it requires local jurisdictions to adopt a streamlined, "check-list" style, expedited permit process for such systems installed on residential rooftops by September 30, 2015. None of these elements are included in the Draft Ordinance, so presumably the County intends to implement AB2188 in a separate rulemaking process.

I11-5

- The only other state statute which could possibly inform or direct the County's renewable energy ordinance development process is the California Solar Rights Act (the "Act"), which was adopted to prevent homeowner associations and local jurisdictions from placing unnecessary barriers to the installation of solar energy systems. This Act is discussed in more detail below.

- The California Solar Rights Act is itself preempted by certain federal and state statues (such as those addressing endangered species, wildlife protection, and environmental impacts). In fact, the only solar installations that are categorically exempt from the California Environmental Quality Act ("CEQA") are parking lot- and roof mounted-solar systems.

I11-6

- The California Energy Commission, in concert with the California Department of Fish and Wildlife, the U.S. Bureau of Land Management, and the U.S. Fish and Wildlife Service, are coordinating on the Desert Renewable Energy Conservation Plan (DRECP) to develop a biological mitigation and conservation program for renewable energy projects. This plan captures virtually all of the Antelope Valley. Although the Draft EIR/EIS for this project has only just recently released, it appears to address (at least in part) the concerns raised by Ms. Pincetl at the public hearing. More information can be found here: http://www.drecp.org/

I11-7

The Draft Ordinance Already Complies Fully with the California Solar Rights Act. In referring to the Act, staff gave the impression that it restricts the County's ability to impose limits on solar energy project developments. This is not simply not true. In fact, even if the County were to incorporate all the changes requested by the public during the hearing, the Draft Ordinance would still be fully compliant with the Act. This is because the Act simply establishes 2 categories of solar installations; those which are deemed to have no adverse health and safety impacts, and those that are deemed to potentially create adverse health and safety impacts. The first category includes rooftop solar installations by homeowners, agricultural interests and business interests, and the Act specifies that these types of projects must be by approved by the County through a ministerial "building permit" process. Solar installations that fall into the second category may undergo a "use permit" process. It must also be pointed out that, although the Act focusses on the health and safety impacts of solar energy projects, it does not exempt solar projects from CEQA or other environmental protection statutes, and those installations that are subject to a "use permit" process must fully comply with CEQA.

I11-8

As written, the Draft Ordinance already complies (explicitly and fully) with both the language and the intent of the Act because it provides ministerial approval of both small-scale and roof-mounted utility scale solar installations "by right" through the building permit process. And consistent with the Act, the only solar installations that are subject to a "use permit" process are 1) Ground-mounted large utility-scale developments on lands zoned as A2, commercial, industrial, RR, and W; and 2) Structure mounted developments in R1-zoned land. The ordinance establishes that all other installations are approved through ministerial building permits. Equally important is the fact that ***none*** of this would change if the ordinance were revised to accommodate all the matters raised by the public in the hearing. Contrary to what was indicated by staff and County Counsel, the Draft Ordinance would still comply fully with the Act even if all of the recommendations made by the public were integrated into it. This fact is supported by the plain language of the Act itself, which states (in pertinent part and with emphasis added):

9.5 CALIFORNIA GOVERNMENT CODE SECTION 65850.5

(a) The implementation of consistent statewide standards to achieve the timely and cost effective installation of solar energy systems is not a municipal affair, as that term is used in Section 5 of Article XI of the California Constitution, but is instead a matter of statewide concern. It is the intent of the Legislature that local agencies not adopt ordinances that create unreasonable barriers to the installation of solar energy systems, including, but not limited to, design review for aesthetic purposes, and not unreasonably restrict the ability ***of homeowners and agricultural and business concerns to install solar energy systems***. It is the policy of the state to promote and encourage the use of solar energy systems and to limit obstacles to their use. It is the intent of the Legislature that local agencies comply not only with the language of this section, but also the legislative intent to encourage the installation of solar energy systems by removing obstacles to, and minimizing costs of, permitting for such systems.

(b) ***A city or county shall administratively approve applications to install solar energy systems through the issuance of a building permit or similar nondiscretionary permit***. Review of the application to install a solar energy system shall be limited to the building official's review of whether it meets all health and safety requirements of local, state, and federal law. ***The requirements of local law shall be limited to those standards and regulations necessary to ensure that the solar energy system will not have a specific, adverse impact upon the public health or safety.*** However, if the building official of the city or county has a good faith belief that the solar energy system could have a specific, adverse impact upon the public health and safety, ***the city or county may require the applicant to apply for a use permit.***

I11-9

It should also be noted that the Act authorizes the County to deny a use permit application for a solar project based on findings that the adverse health and safety impacts created by the project cannot be feasibly mitigated. At the public hearing, three substantial health and safety concerns relative to ground-mounted solar projects were raised that are not properly addressed in the Draft ordinance (and have NEVER been mitigated in any solar projects installed to date). These impacts (glare, dust, and valley fever) pose significant

I11-10

health and safety concerns in the Antelope Valley. Glare significantly impairs safe driving conditions even in areas that are miles away from solar installations. Dust causes significant respiratory and health problems, and the incidence of Valley Fever has increased 100% since large scale solar installations became operational in the Antelope Valley. The Act makes it clear that the County must properly address these serious health and safety concerns in the Draft Ordinance, and ensure that these impacts are thoroughly mitigated before any use permit is issued for solar projects in future.

I11-10 Cont.

Staff Comments Regarding "Small-Scale" solar projects.

I raised concerns regarding the Draft Ordinance provisions which authorize 2.5 acres of "small scale" solar facilities as an accessory use in any zoned area. This "accessory use" authorized by the Draft Ordinance does not distinguish between low impact roof-mounted systems on industrial/commercial buildings and high impact, ground-mounted systems on rural residential/agricultural parcels. It also fails to address or even recognize that 2 .5 acres of solar panels on a rural residential lot is hardly intended for "on-site" use, given that it produces sufficient energy to support 75+ homes. These concerns stem from the significant glare, dust, valley-fever, and well water usage impacts that such enormous accessory uses will create in Acton's residential and agricultural areas. Mr. Lee indicated that the 2.5 acre "small-scale" solar facility limit was intended more for commercial and non-residential locations. However, the Draft Ordinance does not draw this distinction, so his comments are not supported by the language of the ordinance itself. Mr. Lee also indicated that, because "small scale" systems are intended to generate energy for on-site use, the County would be able to reduce the size of residential systems to less than 2.5 acres through the permitting and environmental review process. This is also incorrect because the accessory 2.5 acre "small-scale" solar systems are authorized "by right" in the Draft Ordinance, and will never be subject to limitations or environmental review because they will be approved through a ministerial building permit process. The following is intended to correct the information presented by Mr. Lee:

I11-11

- "Small-Scale" solar facilities are established as an accessory use in every single zoning category, including rural residential/agricultural. Contrary to Mr. Lee's understanding, they are not limited to commercial or industrial areas.

- As an established accessory use, rural residential and agricultural property owners are allowed "by right" to cover up to 25% of their property with solar panels up to a maximum of 2.5 acres.

- As an established accessory use, the approval of 2.5 acres of solar panels on residential and agricultural lots is a ministerial action which will not be subject to the "environmental review" referred to by Mr. Lee.

- As an established accessory use, rural resident will have unconditional authorization to strip 2.5 acres of their property and cover it with solar panels, which will create significant dust, glare, water table and valley fever impacts on the surrounding properties

4

- As an established accessory use, the County will be unable to limit the total area of solar panels on a residential or agricultural lot based on whether or not the staff believe the energy will be used "on-site" or "off-site".

I11-11 Cont.

I have never seen the County conduct an "environmental review" of any "by right" accessory use, and I have never seen the County restrict any "by right" accessory use to anything less than what the code allows. In other words, I have never seen the County implement any of the "limiting" actions that Mr. Lee described to the Planning Commission. It should be noted that the draft Ordinance already authorizes unlimited *utility-scale* solar facilities as a "structure" use that is permitted "by right" in almost every zoning category (including rural residential and agricultural).

I11-12

To address these concerns, and to be consistent with AB 2188, I suggest that the Draft Ordinance be revised to define "small-scale" solar energy systems as being roof or parking lot mounted (and therefore categorically exempt from CEQA review), and establish a 25 kW size limits for accessory solar energy systems in commercial and industrial zones, and a 10 kW size limit for accessory solar energy systems in residential and agricultural zones. This revision complies fully with all state laws, and addresses the concerns that I raised. If a particular commercial or industrial facility wishes to increase this limit to support its "on-site" energy needs, then it can easily do so via the minor CUP process authorized in 22.52.1640 of the Draft Ordinance.

I11-13

Conflicts between CSD's and the Draft Renewable Energy Ordinance.

Mr. Child indicated that staff had not perceived any substantial conflicts between the Draft Renewable Energy Ordinance and any CSD provisions. If this is true, then staff had no reason to include a statement in the draft ordinance which explicitly subordinates all CSD provisions. Nonetheless, such a statement was included. More to the point, there are numerous and substantial conflicts between the Draft Ordinance and the Acton CSD. The following list identifies some of these conflicts; it was put together quickly, so there may be other conflicts that would be identified via a more detailed review.

I11-14

- The Draft Ordinance authorizes structures as high as 500 feet in height. This conflicts with the 35 foot structure height limit imposed by the Acton CSD [22.44.126(C) (3)].

- Ground-mounted utility scale wind and solar structure conflict with the CSD requirement that external utility devices be concealed, and non-residential uses have a "western style" design.

I11-15

- The Draft Ordinance protects only "significant ridgelines identified in the General Plan... Area Plan, ... or CSD". The problem is, Acton has no specifically identified significant ridgelines. Instead, the Acton CSD generally describes what constitutes a significant ridgeline, and simply urges that the "natural silhouette" of these ridgeline area be "preserved to the greatest extent possible". Because these ridgelines are not

I11-16

specifically identified in the CSD or in any planning documents, they are not protected by the ordinance, which paves the way for 500 foot high wind turbines to be constructed on them. Such construction, though allowable under the Draft Ordinance, would substantially conflict with the Acton CSD. The only way to avoid this would be to make the Draft Energy Ordinance subordinate to CSD provisions, not the other way round. As I stated previously, any energy developer wishing to construct a project that is contrary to any CSD provision can simply apply for a variance for the project, just like any other project proponent.

I11-16 Cont.

- Drainage provisions of the Acton CSD limit the total impervious surface finished area to 10% of lots sized 3 acres or more, and to less than a quarter of an acre on lots that are less than 3 acres. The grading for, and the installation of, a25% solar panel lot coverage authorized by the Draft Ordinance will significantly alter water runoff patterns in Acton and therefore impact drainage in Acton to an extent similar to 2.5 acres of roof runoff. Therefore, this provision essentially conflicts with the Acton CSD drainage provisions. Note that these drainage provisions were implemented as a safety measure to protect down-stream properties. Therefore, limiting the total solar panel area in Acton to something less than 25% is in complete harmony with the Solar Rights Act.

I11-17

I trust that these comments address all the outstanding issues raised at the public hearing, and that they convince the County to revise the draft Ordinance provisions pertaining to accessory uses, CSD subordination, and other matters. I also respectfully request that the County more fully address the issue of glare and "FAA-required" lights in the ordinance, particularly in light of Southern California Edison's startling admission earlier this week that none of the lights that it has recently installed along the 200+ miles of new transmission lines were actually required by the FAA. If you have any questions, please do not hesitate to contact me at AirSpecial@aol.com.

I11-18

Sincerely,

/S/ Jacqueline Ayer
Jacqueline Ayer

Cc: Suzie Tae, Department of regional Planning
Norm Hickling, Deputy for Supervisor Antonovich
The Association of Rural town Councils
The Acton Town Council

Response to Comment Letter I11

Jacqueline Ayer
March 20, 2015

This comment letter was submitted in response to the March 18, 2015, public hearing that was held for the proposed project. The commenter states in the first paragraph that the letter is intended to address concerns regarding the relationship between the proposed project and other regulations, such as County CSDs and state renewable energy legislation. As such, this comment letter was not submitted in response to the Draft EIR. However, this letter and the County's associated responses will be provided under separate cover to the Board of Supervisors prior to consideration of the proposed project.

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Comment Letter I12

From: Esca Smith <esmith65@avc.edu>
Sent: Saturday, April 04, 2015 12:35 PM
To: Jay Lee
Subject: Re:Comments whether the report adequately examines potential environmental harm, new regulations on how and where renewable-energy facilities can be built

Hi Los Angeles County Regional Planning Commission, I would hope that any changes to existing regulations or any new regulations would address (1) preserving riparian environments and habitats in hillside canyons and washes in, at, and near home construction and commercial/industrial construction, because these habitats are critical to the survival of so many native desert species.; (2) Elevated construction of Solar Generation Stations on frame racks ten feet above ground, as to allow access and egress of wildlife in their historic range, including Pronghorn Antelope.; And (3) fencing with a smooth bottom wire or rail (not barbwire) 18" to 20" above ground allowing enough room for Pronghorn Antelope to crawl under. Also (4) guarantees that Habitat Corridors will include access and egress to the Antelope Valley California Poppy Reserve for Pronghorn Antelope. Thank You Sincerely Esca Smith President of the Naturalist Environmental Organization (N.E.O. a student club at Antelope Valley College)

I12-1

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Response to Comment Letter I12

Esca Smith
April 4, 2015

I12-1 This comment consists of a request that any changes or additions to regulations would address preserving riparian environments and habitats in hillside canyons and washes near existing construction of residences or commercial and industrial structures.

The proposed Zoning Code amendments includes several new provisions that would protect such areas from the development of renewable energy projects. Refer to Appendix A for the text of the proposed Zoning Code amendments. However, examples of such provisions is provided below:

- Utility-scale ground-mounted renewable energy projects would not be allowed in SEAs, whose boundaries have recently been expanded under the General Plan Update (see Figure 4.4-2 in the EIR). Under the current Zoning Code provisions, such projects are allowed to occur in SEAs.
- Wind energy projects and utility-scale structure-mounted solar energy projects would not be allowed in the O-S and W zones (see Figure 4.10-1 in the EIR). Under the current Zoning Code provisions, these projects are allowed in the O-S zone.
- Small-scale ground-mounted solar energy projects are currently allowed with a ministerial permit in the W zone. Under the proposed Zoning Code amendments, such projects would require a discretionary permit in the W zone.
- The proposed Zoning Code amendments include ridgeline setbacks for some types of renewable energy projects (utility-scale ground-mounted solar energy facilities and wind turbines).
- Required setbacks are established in the Zoning Code for distances between ground-mounted wind energy projects and open space easements and publicly designated preserve areas, riparian areas and wetlands, bat roosting sites, and known golden eagle nest sites. For utility-scale ground-mounted wind energy projects, there are also required setbacks between those projects and SEAs.

As demonstrated by the summary of measures above, the proposed Zoning Code amendments address protections to development of renewable energy projects in biologically sensitive areas such as hillsides and riparian areas.

While this comment does not address the analysis in the Draft EIR, it is noted that the effects of future renewable energy projects development pursuant to the proposed Zoning Code amendments on biological resource are addressed in Section 4.4 of the Draft EIR. This section includes a discussion of potential effects to sensitive habitats such as riparian areas. While potentially significant effects to biological resources were identified, the measures described above reduce these effects (but not to a less-than-significant level). While potentially significant and unavoidable impacts were identified, future projects requiring discretionary review would be subject to project-specific CEQA review. At that time, project-specific mitigation measures would be applied to address site-specific significant effects to biological resources, if any are identified during the CEQA process.

I12-2 This comment consists of a three suggested Zoning Code provisions for the protection of Pronghorn Antelope. This suggestion will be included in the Final EIR for review and consideration by the decision makers.

While this comment does not address the analysis in the Draft EIR, it is noted that the effects of future renewable energy projects developed pursuant to the proposed Zoning Code amendments on wildlife movement is discussed in Section 4.4 of the Draft EIR. The analysis in the Draft EIR identified potentially significant and unavoidable impacts to wildlife movement. While the proposed Zoning Code amendments contain several development standards to minimize effects on wildlife, including those on wildlife movement, site-specific measures may be required for future projects undergoing CEQA review on a project-by-project basis. For renewable energy projects requiring further discretionary approval and CEQA review, the wildlife movement protections contained in this comment could potentially be mitigation measures or project design features that would address significant site-specific effects to wildlife movement, if such effects are identified during project-specific CEQA review. Projects not required to undergo discretionary review (structure-mounted and small-scale solar energy systems) would not be anticipated to effect the movement of larger mammals such as Pronghorn Antelope.

Comment Letter I13

From: Judy Watson <j_a_c_1940@yahoo.com>
Sent: Sunday, April 05, 2015 10:08 AM
To: Norm Hickling; evizcarra@lacbos.org; Susan Tae; Jay Lee
Subject: New Technology

California has reached it's 33%, requirement by law, for green energy projects. Yet, these projects are still destroying miles of desert land and more to come. I look out at the Antelope Valley covered in thousands of acres of solar panels, and think, this will soon be obsolete. Remember the first computer? It took up an entire room. In just a few short years, you could hold one in the palm of your hand which did 100 times what the first computer ever thought about accomplishing.
With technology still evolving, what do we do with out dated solar farms and wind turbines. Lockheed is researching nuclear fusion, with predictions of powering 80,000 homes 24/7 with electric power, about the size of a pick up bed, without waste or danger. Aren't we destroying miles of habitat, desert wildflower growth, and creating dust for nothing. Not to mention valley fever spores carried in unwanted dust that infects valley residences. It's time to stop all construction, take a breath, re-think these projects and consider the changes that will happen with new technology.
Thank you
Judy Watson
46460 Kings Canyon Rd
Lancaster, Calif. 93536
661-724-1563

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Response to Comment Letter I13

Judy Watson
April 5, 2015

I13-1 This comment states that California has reached its requirements for the amount of energy that is obtained from renewable sources (33%). This statement is not correct. In 2013, California's three largest investor-owned utilities (Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric) collectively served 22.7% of their 2013 retail electricity sales with renewable power. As such, while California is generally on track to meet the 33% procurement goal by 2020, it has not yet reached this goal. Refer to the webpage for the California Renewables Portfolio Standard, administered by the California Public Utilities Commission (http://www.cpuc.ca.gov/PUC/energy/Renewables/).

This comment also suggests that technology is evolving to the extent that existing and/or future solar energy projects and wind turbines become out dated. The comment also suggests that due to the fast past of evolving technology, such projects should not be constructed, as new technologies would likely result in fewer environmental concerns, including dust, Valley Fever, and impacts to wildflower habitats.

The proposed Zoning Code amendments do not propose or entitle any utility-scale ground-mounted renewable energy projects or wind turbines. (Small-scale solar energy systems and utility-scale structure-mounted solar energy systems would be permitted by right in most zones). Additionally, both wind and solar projects are allowed under the existing Zoning Code provisions. With the exception of prohibiting concentrated solar thermal collectors, the proposed project does not constitute a change in the types of renewable energy technologies that are allowed within the County. The proposed project would add baseline standards for renewable energy projects to the Zoning Code. The proposed Zoning Code amendments would not preclude new technologies from being developed and implemented, unless these new technologies were to violate the provisions of the Zoning Code.

While this comment does not address the adequacy of the environmental analysis in the Draft EIR, it is noted that the environmental concerns listed in this comment (dust, Valley Fever, and impacts to wildflower habitats) are addressed in Sections 4.3, 4.4, and 4.6 of the Draft EIR.

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Comment Letter I14

From: Judy Watson <j_a_c_1940@yahoo.com>
Sent: Sunday, April 05, 2015 10:06 AM
To: Norm Hickling; evizcarra@lacbos.org; Susan Tae; Jay Lee
Subject: Not Recyclable

What happens to old wind turbines, made of fiberglass and hold 500 gallons of oil, they're not recyclable. What do you do with old solar panels that no longer function, that have Cadmium Telluride, a toxic poison, also not recyclable. Wind and Solar farms are the hypocrisy of the environmental movement. These projects haven't worked well for Europe, why would it for us? Do you research the Pro's and Cons? My view is of the Kern County wind farms, and many a day they sit motionless. No Wind. No Power. Solar Farms heat the ground and atmosphere around them, contributing to global warming. I14-1

Jobs? after completion of 6 months to a year, the area is a ghost town. Maybe one or two maintenance jobs. We should wait and see how reliable and efficient these farms are before we construct more. We've been telling you for years, we don't want DRP unelected bureaucrats making decisions for us. I14-2

Cindy Bonanno
46307 Kings Canyon Rd.
Lancaster, Calif. 93536
917-7923

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Response to Comment Letter I14

Cindy Bonanno
April 5, 2015

I14-1 This comment presents concerns regarding wind turbines and solar panels that are no longer in use. The commenter states that wind turbines and solar panels are not recyclable.

The proposed Zoning Code amendments do not propose or entitle any wind turbines. All future wind energy projects within the County's jurisdiction would be subject to further discretionary review and CEQA review. The site-specific and project-specific environmental effects of future projects, including impacts related to decommissioning of wind turbines, would be addressed on a project-by-project basis and applicable regulations would be identified at that time.

The proposed Zoning Code amendments include a variety of provisions for decommissioning of utility-scale ground-mounted renewable energy facilities. While this comment does not address the environmental analysis in the Draft EIR, it is noted that solid waste resulting from decommissioning is addressed in Section 4.17. Cadmium telluride and other chemicals are discussed in Section 4.8 and in Section 3.3.4.

This concern regarding recycling of obsolete solar panels and wind turbines will be included in the Final EIR for review and consideration by decision makers.

I14-2 This comment raises concerns regarding the number of jobs that are associated with renewable energy projects. This comment also expresses concerns regarding decision making in the County.

While the environmental effects of growth inducement and population growth are required to be addressed in EIRs, social and economic effects need not be considered in an EIR (see CEQA Guidelines section 15064(e)). Additionally, it is not the function of the EIR to evaluate the merits of the project or to develop a recommendation for decision makers. As such, this comment does not pertain to the environmental analysis in the Draft EIR; however, it will be included in the Final EIR for review and consideration by decision makers. The decision makers have the approval authority for the proposed project and will consider all information in the Final EIR and related documents before making a decision on the project.

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Comment Letter I15

April 6, 2015

Los Angeles County Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Attn: Thuy Hua
Email: thua@planning.lacounty.gov
Email transmission of 3 (three) pages

Subject: Comments on the Draft Environmental Impact Report issued for the Draft Renewable Energy Ordinance.

Dear Ms. Hua;

Please accept these comments on the Draft Environmental Impact Report ("EIR") prepared pursuant to the County's Draft Renewable Energy Ordinance ("RenEng") released February 20, 2015. Incorporated in these comments on the Draft EIR by reference are all the prior comments that I have previously submitted to DRP on this draft ordinance, including (but not limited to) the letters submitted on March 9 and March 20, 2015. I15-1

I have a number of concerns with the Draft EIR, and public review of the document is made more complicated by the fact that it is not provided in a searchable format, and it is broken into 31 separate files. In short, reviewing the Draft EIR is NOT a "user friendly" experience. Given that the Draft RenEng Ordinance was released at the same time as the Draft EIR on a compressed public review, comment, and hearing cycle (which demands Board approval by June, 2015), it seems rather clear that the Department of Regional Planning ("DRP") has little time for a thoughtful public dialogue. Moreover, and due to the shortness of time, the logistical difficulties with reviewing the Draft EIR, and the preponderance of other important issues that face the Community of Acton at this time (including, but not limited to, the High Speed Rail, problems with Southern California Edison, new proposed commercial developments, etc.), my comments on the Draft EIR are necessarily brief. I15-2

CHAPTER 3:

The Draft EIR states: "Impacts of small-scale solar energy systems (rooftop or ground-mounted) on land and resources generally relate to effects on the visual environment."

This is not true. A major health and safety concern is glare, which can occur significant distances from the solar installation. See for example the white portions of the energy system depicted in the photograph provided at the top of Figure 3-4c; though muted in the photograph, these are areas of intense glare. Such glare is utterly blinding to anyone I15-3

(including motorists) in the path of the reflected light. Another major health and safety concern is dust/respiratory problems and valley fever created by allowing a quarter of every parcel in the Antelope Valley to be covered with ground mounted solar equipment. For example, see the photograph provided at the bottom of Figure 3-4b. If 25% of every lot in Acton has what is depicted in this figure (as allowed by the draft RenEng ordinance), there would be daily dust storms across the entire community of Acton.

I15-3 Cont.

I15-4

The last line item on Table 3-2 (on page 3-32) states that the Environmental Design Consideration for the "Noise" issue associated with utility scale wind is "Noise from small-scale wind energy systems shall not exceed 60 dBA SEL, as measured at the closest neighboring inhabited dwelling". This is problematic for a number of reasons:

- This limit applies only to small-scale wind energy facilities and ignores the substantially louder noise potential of utility-scale wind generation facilities (both structure- and ground-mounted).

- It constrains the consideration of noise impacts to only existing inhabited dwellings, and ignores businesses and outdoor uses such as equestrian facilities (barns, corrals, trails), animal rescue facilities, agricultural uses, etc. The noise limit must be established at the fenceline, and not extend to properties that are not part of the energy development.

- It establishes a very high (60 dB) noise threshold (for small wind systems only) that is entirely unsuitable for rural areas. Ambient noise levels in such areas are typically less than 45 dBA, and an increase of 10 dBA results in an approximate doubling of the sound. The 60 dBA threshold essentially triples the ambient noise level in rural areas. To frame the issue in more understandable terms, 60 dBA is approximately the noise level one experiences 3 feet from an operating clothes dryer, and 10 dBA more (at 70 dBA) is the noise made by a vacuum cleaner. This authorizes a continuous and exceptionally loud "noise overlay" in rural areas where the existing noise profile is virtually non-existent. There is no reason for establishing such a high threshold value

I15-5

- It relies on a "Single Event Level" parameter which does not properly or accurately represent the continuous noise profile generated by wind energy facilities. While uses which occasionally create single noise events of 60 dBA or more may be reasonable in rural areas, uses which generate such noise levels on a continuous basis (such as wind turbines) are not.

- The Draft EIR considers only initial sound profiles, does not require a "followup" assessment after construction to confirm that noise limits are met, and fails to address increased noise that will occur over time after the wind turbine bearings and contact surfaces are worn down and no longer "true".

The Draft EIR also fails to justify the absurdly low "2X height" setback limits for utility scale ground-mounted wind projects (see table 3-4), In fact, I could find nowhere in the Draft EIR where impacts of this ridiculous setback limit is even addressed; instead, the Draft EIR simply states that the impacts of these facilities are potentially significant. Worse yet, and in violation of CEQA, the Draft EIR fails to consider alternative setback limits which would indeed reduce impacts to less than significant. For the record, internationally, (and particularly in Europe), the setback standard for such facilities is at least half a mile or more. I15-6

CHAPTER 4

This Chapter fails to properly establish quantifiable thresholds for various environmental impacts such as land use, aesthetics, and water usage even though such thresholds can indeed be developed for small-scale solar development in residential rural communities such as Acton. Specifically, DRP could reasonably quantify thresholds of significance for impact that will occur when 25% of the entire land area of rural communities like Acton is occupied by ground-mounted accessory solar facilities that are supposedly "small scale". Rather than complying with CEQA, the Draft EIR merely states that the RenEng ordinance "could have a potentially significant effect" on the environment (see for example page 4.1-17). This failure to establish quantitative thresholds of significance in the Draft EIR constitutes a violation of CEQA (15064.7) and it allows DRP to completely sidestep ***any*** consideration of ***actual*** impacts that will occur in communities like Acton when huge sections of the community are occupied by "small-scale" solar facilities. I15-7

Worse yet, DRP's failure to quantify impacts that will occur as a result of the RenEng Ordinance ultimately allows DRP to ***ignore*** viable project alternatives that would reduce impacts of "small scale solar facilities" in rural communities to less than significant. For instance, limiting "small-scale solar facility" development on ***residential*** and ***agricultural*** lots to 15 kW will entirely achieve the objective of "small scale solar" facilities by promoting solar development for "on site" use, while minimizing all the glare, dust, and water usage of such developments within rural communities to a level of insignificance. The Draft EIR must be revised to establish quantified impact thresholds for "small-scale" solar development in rural communities, and consider alternatives (in the form of size limitations on residential and agricultural uses) that reduce impacts to "less than significant". I15-8

Sincerely,

Jacqueline Ayer
Resident, Acton

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Response to Comment Letter I15

Jacqueline Ayer
April 6, 2015

I15-1 This comment introduces the letter; as such, no response pertaining to the proposed project or to the Draft EIR is required. As indicated in Table 10-3, the comments that were submitted by Jacqueline Ayer during the public review period for the Draft EIR consist of letters I3, I4, and I11. The County has prepared responses to the individual comments in these letters, which are shown in the sections above. These letters (I3, I4, I11, and I15) and the responses prepared by the County are included in the Final EIR for review and consideration by decision makers. The oral comments received from this commenter during the public hearing that occurred within the Draft EIR public review period are included in Chapter 3 of this Final EIR, along with the County's responses to these oral comments.

I15-2 This comment addresses the public review of the Draft EIR. The Draft EIR was prepared in accordance with the CEQA guidelines, and the appropriate review period as required per CEQA was provided. See Response C2-1 for more information regarding the public review period.

I15-3 The effects of glare produced by small-scale solar energy systems (both structure-mounted and ground-mounted) are addressed in the Draft EIR. Section 4.1 considers the effects of glare relative to aesthetic impacts and Section 4.8 considers the effects of glare relative to safety issues. The commenter's concern regarding this effect will be included in the Final EIR for review and consideration by decision makers.

While this comment addresses glare attributable to small-scale solar energy systems, information about glare and utility-scale solar energy systems is contained in Response C1-2. Additionally, it is noted that small-scale solar energy projects are currently allowed in most zones without discretionary review. As such, the proposed project does not allow for small-scale solar energy projects in any areas where they are not currently allowed.

I15-4 This comment expresses concerns regarding Valley Fever. Valley Fever is addressed in Sections 4.3 and 4.6 of the Draft EIR. Additionally, responses regarding the concern of Valley Fever are contained in Response C2-41.

This comment further expresses concerns about the amount of land that could potentially be converted to ground-mounted solar energy uses under the definition of "small-scale ground-mounted solar energy system" that is proposed in the Zoning

Code amendments. The commenter states that, under the proposed Zoning Code amendments "25% of every lot in Acton" could be developed with a small-scale ground-mounted solar energy system. By definition in the proposed Zoning Code amendments, a small-scale solar energy system is used to generate direct electrical or thermal energy primarily for on-site use, and projects would need to be sized accordingly. While extra energy may be exported off-site, this definition limits the size of the systems based on the current land use of a parcel. According to Comment I4-12, also submitted by this commenter, a 2.5-acre ground-mounted solar energy system would provide energy for 75 homes. For such a scenario to occur, two conditions would be present on a single parcel: (1) a land use that utilizes the energy produced by solar panels covering 2.5 acres or 25% of a lot and (2) sufficient undeveloped land on that same lot to cover 25% of the lot with ground-mounted solar arrays. Due to the rural residential character of the community of Acton, it is unlikely that every lot in Acton contains an energy use that can support an on-site solar energy system equating to 25% of the lot. See Response S1-15 for further discussion of the maximum allowable size of small-scale ground-mounted solar energy systems.

It is also noted that under the current Zoning Code, small-scale ground-mounted solar energy systems are currently permitted without further discretionary review in agricultural zones, W zones, residential zones, commercial zones, and industrial zones. The proposed Zoning Code amendments establish baseline standards for such projects where no provisions are currently in place. As such, the analysis in the Draft EIR identifies increased impacts to erosion and air quality in the event that no provisions for renewable energy projects are incorporated into the Zoning Code (i.e., the "No Project Alternative;" see Chapter 6 of the Draft EIR).

I15-5 The text contained within Table 3-2 of the EIR incorporates language directly from the proposed Zoning Code amendments. In the proposed Zoning Code amendments that were released along with the Draft EIR, the conditions of approval for utility-scale wind energy incorporated by reference the conditions of approval for both temporary MET towers and small-scale wind energy systems. As such, this comment represents a misinterpretation of the proposed Zoning Code. However, it is noted that subsequent to the release of the Draft EIR, the proposed Zoning Code amendments have been revised. The existing regulations for small-scale wind energy systems would now remain in place, including the existing regulations for noise. A separate condition of approval for noise produced by utility-scale ground-mounted wind energy facilities would now apply to those projects. See Appendix A for details.

The remaining concerns expressed in this comment are also expressed in Comments C2-46 through C2-50. Refer to Responses C2-46 through C2-50 for a discussion of these concerns.

I15-6 It is not the function of the Draft EIR to evaluate the merits of the proposed Zoning Code amendments. Rather, the Draft EIR discloses impacts, describes feasible mitigation, and provides comparative analyses for alternatives to the proposed project. As such, the Draft EIR evaluates the effects of future renewable energy projects developed pursuant to the proposed Zoning Code amendments, including the proposed setbacks. Furthermore, it is noted that the proposed Zoning Code amendments established baseline standards for utility-scale ground-mounted wind energy projects where no provisions specific to such land uses currently exist. Under the current Zoning Code, utility-scale ground-mounted renewable energy facilities fall within the category of an Electric Generating Plant in the Zoning Code. The proposed Zoning Code establishes numerous development standards and permitting requirements for such facilities that are not currently in place. Examples include requiring all such facilities to obtain a CUP (Electric Generating Plants are currently allowed with a ministerial permit in certain industrial zones) and prohibiting such facilities from occurring within SEAs.

This comment includes the statement that the proposed Zoning Code amendments contain setback limits, as shown in Table 3-4 of the Draft EIR. However, it is noted that the setbacks shown in this table are described as "minimum distances." As such, these provide baseline standards for setbacks and would not limit the lengths of setbacks for future projects.

The EIR evaluates three feasible project alternatives. CEQA Guidelines Section 15126.6 requires an EIR to describe a range of reasonable alternatives to a project or to the location of project which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. However, as stated in CEQA Guidelines Section 15126.6, an EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. The Reduced Utility-Scale Solar and Wind Energy Facilities Alternative includes an increase in minimum setback length over those established in the proposed Zoning Code amendments. This alternative was identified in the EIR as the environmentally superior alternative.

I15-7 This comment identifies a number of concerns. First, the commenter states that the Draft EIR "fails to establish quantifiable thresholds for various environmental

impacts." The County has adopted CEQA thresholds, which are listed in the third subsection of each section in Chapter 4 of the EIR. In accordance with CEQA Guidelines Section 15064.7, the thresholds of significance constitute "an identifiable quantitative, qualitative, or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency." As such, there is no requirement for all thresholds to be quantitative.

Secondly, the commenter suggests that 25% of Acton could potentially become covered with small-scale ground-mounted solar energy systems. This concern is addressed in Response I15-4.

I15-8 As described above, one of the alternatives examined in the EIR is the Reduced Small-Scale Solar Energy Systems Alternative. While this alternative would decrease environmental impacts as compared to the proposed project, it would not reduce potentially significant impacts to a level less than significant. For more information about the proposed maximum size of small-scale ground-mounted solar energy systems, see Response S1-15. For information regarding the types of measures that these systems would be subject to, see Response S1-12 (describes avoidance and minimization measures incorporated into the proposed Zoning Code amendments), S1-14 (describes adherence to state requirements), and S1-16 (describes other applicable County policies). For a response to previous recommendations to limit such systems to 15 kW, see Response I4-12, for a response to previous recommendations to limit such systems to less than one quarter of an acre, see Response C2-34.

The recommendation for a 15 kW limit for small-scale ground-mounted solar energy systems in residential and agricultural zones will be included in the Final EIR for review and consideration by decision makers.

Comment Letter I16

Susan Zahnter
P. O. Box 76
Lake Hughes, CA 93532

6 April 2015

SENT VIA EMAIL

Mr. Jay Lee, Planner
Renewable Energy Ordinance
Los Angeles County Department of Regional Planning
320 West Temple Street 13th Floor
Los Angeles, CA 90012
jalee@planning.lacounty.gov

Dear Mr. Lee,

RE: Comments, Draft Environmental Impact Review, Renewable Energy Ordinance

It is ironic that the County's Renewable Energy Ordinance (REO), meant to provide protections not existing under current ordinances, is part and parcel of immense popularity of so-called "green energy" projects promoted by the renewable energy industry, State of California, and Federal energy policies that do considerable harm to natural environments, property owners, and residents. It is ironic massive destruction of landscapes, especially those of the rural Antelope Valley are promoted by the County's "green energy" ordinance, which is poised to have many "potentially significant and unavoidable" effects on North County communities. These effects are not only environmentally destructive to landscapes and wildlife, but harmful to the health and welfare of local residents via issues surrounding fugitive dust, water, and loss of private property values as a result of utility-scale renewable energy development. I16-1

There are well documented effects of utility-scale renewable energy on wildlife. Most of us have heard or read accounts of bird "streamers" evaporating in beams of intense light produced by solar plants; seen videos of federally protected raptors injured or killed in flight, foraging near wind turbines; heard of bats killed by the thousands by "barotrauma" created by atmospheric pressure changes around turbine blades, etc. However, thousands of residents and landowners across the Antelope Valley face the advance of utility-scale renewable energy projects that will produce fugitive dust that carries Coccidioides immitus, or Valley Fever. So far, there has been limited success in reducing dust, and "the emissions from industrial and transportation activities in the County, combined with topographic and meteorological characteristics of the area, create air quality conditions that fail to meet state and federal ambient air quality standards" (DEIR, 4.3-4). How does the DEIR address this failure to meet state and federal air quality standards? Recently, the Environmental Protection Agency faulted the Desert Renewable Energy Conservation Plan for failing to properly address impacts of Renewable Energy (RE) development on air quality. "Under the Clean Air Act, any new project that constitutes a potential new stationary source of air pollution must obtain a permit from the EPA under the agency's New Source Review program. Desert solar facilities have already been shown to contribute to particulate matter in the air downwind. Since the entire DRECP plan area violates federal clean air standards for particulate matter on a regular basis, it would seem sensible to apply New Source Review standards to those projects the DRECP is meant to encourage. The EPA suggests that a procedure for determining whether new renewable projects in the plan area will need to obtain New Source Review I16-2 I16-3

permits be included in the DRECP's final Environmental Impact Statement: a substantial undertaking" (KCET, Rewire, The EPA Just Ripped California's Big Renewable Energy Plan, Chris Clarke, February 25, 2015 5:10 PM). No suggestion appears in the DEIR that EPA New Source Review criteria for permits would be a requirement for individual projects, and the lack of surety for elimination of fugitive dust and inability to reduce impacts to "less than significant" leaves residents in the Antelope Valley exposed to dangerous respiratory disease-causing particulate matter and Coccidioides spores, which can sicken and kill. Chapter 4.3 mentions only guidelines to protect project workers, not residents. As the DEIR explains, "there is no guarantee at this time on a project-specific level, that implementation of measures previously described and any future mitigation measures deemed necessary through the CUP discretionary process will reduce impacts to a level below significance" (pg. 4.3-29). There is no requirement in the ordinance that air quality meet measurable standards to protect Antelope Valley Residents, and no air quality monitoring equipment required by projects to evaluate the success of air quality mitigation measures.

I16-3 Cont.

Repeatedly, residents have expressed concerns regarding water issues. During this time of drought many have questioned the use of water for large utility-scale projects. Some projects have exhausted their allotted water supplies during construction phases and required additional water for dust control and have additional water needs for failing landscape designs. A concentration of projects in specific areas could cause diminishing ground water levels and affect private wells. As of this writing, water purveyors may sell water to any project as they see fit, even those outside their districts, and at the expense of water supplies for residents. There are no "required" water conservation plans or water quality testing in this document. The DEIR explains the water adjudication currently considered, and refers future projects to the requirements set forth by the court, when the final judgment occurs. The current drought has brought state requests to reduce water consumption by twenty-five percent. How is it possible to reduce water consumption and at the same time guarantee water for population growth and development of RE throughout the county?

I16-4

So far, the DEIR does not approach the subject of mitigating the loss of property values adjacent to industrial-scale RE projects, as well as the effects of neighboring properties allowed to place up to 2.5 acres of ground-mounted solar panels (without a discretionary permit) on a five acre property. This portion of the RE Ordinance would essentially allow small utility-scale ground-mounted solar development throughout rural communities without public or CEQA review, and allow a piecemeal approach to RE development that may be prohibited by CEQA. Cumulatively, this could have significant impact. Anything that hinders property values is an unfair burden on rural property owners faced with shouldering the huge "actual" cost of renewable energy. In the paper, "International Review of Policies and Recommendations for Wind Turbine Setbacks from Residences: Setbacks, Noise, Shadow Flicker, and Other Concerns," by Katherine M. B. Haugen, Minnesota Department of Commerce: Energy Facility Permitting, October 19, 2011, the country of Denmark has policies in place that require payment to residents nearby wind turbine facilities to be reimbursed for lost property value. "People living within six times the total height of the wind turbine may request to have their property assessed for loss of value due to proximity of the wind turbines.[80] If the value of their property is determined to have decreased by a minimum of 1%, they may be reimbursed for their loss. The value of the property is assessed by experts in property value, and if they determine a significant decrease in the property value the wind facility developer is required to pay the difference" (page 19/43). It does not seem unreasonable to require assessment of adjacent properties by project proponents to determine value and, if necessary, compensate owners.

I16-5

There are a number of communities in the eastern and western Antelope Valley that are identified as "Disadvantaged Unincorporated Legacy Communities" (General Plan 2035_2014-Fig_6). The notion of social justice is inherent in the designation. These communities have few basic services, and this also describes many other similar small communities across the valley without monetary resources for legal assistance, consultation with land planning and legal experts, and lobbyists to protect their rights and properties. How does this DEIR approach mitigation for all significant, unavoidable impacts to rural residents in the North County? It is disheartening to read and see the large number of those significant unavoidable impacts without mitigation to improve outcomes. Rural residents are facing dismal prospects of industrial development that will change the character of their communities. Please include discussion of social justice and RE as it relates to rural communities. I16-6

Sincerely,

Susan Zahnter

Susan Zahnter

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Response to Comment Letter I16

Susan Zahnter
April 6, 2015

I16-1 This comment is introductory in nature. The commenter correctly states that potentially significant and unavoidable impacts have been identified for the proposed project. The commenter's statements regarding these impacts will be included in the Final EIR for review and consideration by decision makers. The effects listed in this comment (fugitive dust, water, and loss of private property values) are further described in Comments I16-2 through I16-6 and are therefore addressed in the responses below.

I16-2 This comment summarizes potential effects that may occur to wildlife as a result of utility-scale renewable energy projects. Such effects are addressed in Section 4.4 of the EIR. Future utility-scale renewable energy facilities developed pursuant to the proposed Zoning Code amendments (with the exception of utility-scale structure-mounted solar facilities) will be subject to discretionary approval and further review under CEQA. During this process, measures may be identified to address any potentially significant site-specific effects to wildlife. Additionally, mitigation is provided in the EIR to ensure that biological impacts are adequately evaluated and that appropriate measures are applied to future projects that are subject to discretionary review (see MM BIO-1 and MM BIO-2).

I16-3 This comment addresses attainment of state and federal air quality standards in the Antelope Valley. As identified in the sentence from the EIR that is quoted by the commenter, the failure to meet these standards is due to a number of factors, including meteorological conditions, existing industrial development, and transportation. The EIR discloses impacts, describes feasible mitigation, and provides comparative analyses for alternatives to the proposed project, not for all projects and activities occurring in the County.

This comment expresses concerns regarding Valley Fever. Valley Fever is characterized in Section 4.6.1 of the EIR. The potential for Valley Fever to affect people who are on the project site and people who are nearby is addressed in Sections 4.6.4 and 4.3.4 of the EIR. Both sections discuss measures that have been incorporated into the proposed Zoning Code amendments to minimize fugitive dust produced by future utility-scale ground-mounted projects. Future ground-mounted projects that are anticipated to disturb large amounts of land would be subject to further discretionary approval, while ground-mounted projects that would be allowed by

right would be limited to 2.5 acres (see Response S1-15 for details about size of small-scale ground-mounted solar energy systems). As such, future projects with the potential for large amounts of site disturbance would undergo further CEQA review, during which the effects related to Valley Fever would be addressed as applicable. For impacts determined to be potentially significant, project-specific mitigation would be required. See also Response C2-41 for a discussion of Valley Fever and Response C2-38 for a discussion dust control measures.

The EIR conservatively concludes that implementation of measures applied on a project-specific level during the CUP discretionary process would not reduce air quality impacts to below a level of significance. Avoidance and minimization measures have been incorporated into the provisions of the proposed Zoning Code amendments for dust control. Furthermore, as discussed in Response C2-38, the mitigation measures are provided in the EIR to ensure that air quality impacts are adequately evaluated and that appropriate dust suppression measures are applied to future utility-scale ground-mounted renewable energy projects (see MM AQ-1 and MM AQ-2).

Applying measurable air quality standards to utility-scale ground-mounted renewable energy projects would not be feasible in the Zoning Code, as the development standards contained within the Zoning Code are Countywide and are intended to apply to a variety of project sizes. Additionally, the federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the federal standards to the states. In California, the task of air quality management and regulation has been legislatively granted to the California Air Resources Board, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. Therefore, it is the responsibility of the applicable air quality management district and air pollution control district to establish criteria air pollutant standards; it is not the responsibility of the County to establish standards within the Zoning Code. Furthermore, future projects requiring discretionary approval would be required to undergo CEQA review. During the CEQA review process, the amount of pollutants that could potentially be produced by the project during construction and operation would be calculated. These calculations would show whether or not the project would exceed air quality thresholds as established by the applicable air quality management district or air pollution control district.

All future projects must comply with either the SCAQMD or the AVAQMD permitting requirements, including Regulation XIII (New Source Review), where applicable. Because project-specific details are not available at this time, it cannot be

concluded if New Source Review would be applicable to individual projects, nor can individual projects be identified.

It should also be noted that the proposed project does not allow for utility-scale ground-mounted projects in zones where they are not currently allowed. Rather, the proposed project contains more stringent permitting requirements and would apply development standards where no specific provisions currently exist.

I16-4 The proposed Zoning Code amendments would require utility-scale ground-mounted renewable energy projects to use recycled water where feasible as a condition of approval. Section 4.9 of the EIR addresses the issue of groundwater depletion and water quality. The County's CEQA thresholds require the consideration of the following impacts related to water supply and water quality:

- Water supply: 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.
- Groundwater: 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).
- Water Quality: Violate any water quality standards or waste discharge requirements; Otherwise substantially degrade water quality (see Section 4.9.3 of the EIR for more thresholds related to water quality).

The EIR evaluated the effects of utility-scale ground-mounted projects relative to the above thresholds at the programmatic level. Discretionary review of future projects would require additional review under CEQA, including a project-specific analysis of the same water-related thresholds. If a potentially significant impact is identified during the Initial Study phase of the CEQA process, the amount of anticipated water usage would be quantified in order to further determine whether or not sufficient reliable water supplies are available to serve the project demands from existing entitlements and resources, including consideration of existing and projected water demands from other land uses.

This commenter mentions that there are no required water conservation plans in the EIR. Water conservation plans are typically applied at a regional or Countywide level. Section 4.9.4 of the EIR summarizes the Integrated Regional Water Management

Plans that are in place within the County. These plans define a strategy for the sustainable management of water resources in a specific region delineated by one or more watersheds. These plans generally contain an assessment of current and future water demand, water supply, water quality, and environmental needs. Future renewable energy projects would be subject to such plans, as would other development in the County.

This commenter also states that the EIR does not require water quality testing. In California, the Regional Water Quality Control Boards implement both state- and federally mandated water quality regulations. The potential impacts of the proposed project on water quality are considered and addressed in Section 4.9 of the Draft EIR. The analysis concluded that water quality impacts would be less than significant through compliance with state and federal standards and County-required water quality measures, as discussed in Section 4.9 of the EIR (County Grading Code, County Low Impact Development Ordinance, National Pollutant Discharge Elimination System compliance, and applicable municipal separate storm sewer system permit requirements).

I16-5 This comment raises concerns regarding property values. This topic was not evaluated in the EIR since it is not related to environmental impacts. See CEQA Guidelines section 15131. However, this type of information can be presented to decision makers for their consideration during the hearing process for the project.

I16-6 This comment pertains to social justice issues, which need not be considered in an EIR. See CEQA Guidelines section 15064(e).

10.3 RESPONSE TO ORAL COMMENTS

This section addresses and provides responses to the proceedings of the County of Los Angeles Regional Planning Commission (RPC) Public Hearing that occurred on March 18, 2015, for the proposed Zoning Code amendments. This chapter includes a transcript of the public testimony given at the hearing. These oral comments have been bracketed in the text of the hearing transcript. Associated responses to the oral comments are subsequently provided. Responses are categorized as follows:

Table 10-4
List of Commenters

Oral Testimony No.	Name
A	Kathleen Trinity
B	Margaret Rhyne
C	Jacqueline Ayer
D	Christopher Croisdale
E	Curtis Morgan
F	Susan Zahnter
G	Jeff Olesh
J	Michael Hughes
I	Paul Henreid
J	Virginia Stout
K	Barbara Rogers
L	Richard Skaggs

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REGIONAL PLANNING COMMISSION HEARING

COUNTY OF LOS ANGELES

Wednesday, March 18, 2015, 1:00 p.m., at the Antelope Valley Transit Authority, Community Room, Lancaster, California.

Reported by: Dayna Michelle Glaysher

CSR Number 13079

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provide for her I guess you can go ahead and just go full force in terms of speaking because she can get your remarks at a later date. But we're going to be sensitive to her and her time as well.

At this point in time I'd like to swear in anyone in the audience who would like to address us today. If you'll please stand and raise your right hand. Okay. Great.

Do each of you swear, affirm under penalty of perjury the testimony you will give will be the truth, the whole truth and nothing but the truth? And if so state I do.

(Audience: I do.)

MR. MODUGNO: Perfect. So we call, Mark, seven names.

MR. CHILD: The first names are Kathleen Trinity, Margaret Rhyne, Curtis Morgan, Jacqueline Ayer, Chris Croisdale, Susan Zahnter and Jeff Olesh.

MR. MODUGNO: Great. Thank you. Perfect. So one other can take the second seat up here. Don't be bashful. So if you'll start with your name and then after your name your clock -- your time will start. Thank you, Ms. Trinity.

MS. TRINITY: Good afternoon, commissioners. My name is Kathleen Trinity. I object for -- I object

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to any policy that would allow the development of large-scale and/or multiple wind turbines in any part of Acton, including the Sierra Pelona Mountains, the San Gabriels, the Parker Mountain, or any other included or adjacent mountains and hills.

Not only would such wind turbines be contrary to Acton CSD's, thereby violating the wishes of residents for a rural setting and lifestyle, but would pose a significant threat to wildlife and wildlife habitat.

The surrounding mountains and included hills of Acton are covered with Juniper trees, grasses, chaparral and scrub oak that provide habitat for mule deer, mountain lions, bobcats, coyotes, rabbits, various other rodents and reptiles. But most importantly and concerning wind turbines are the numerous birds, bats and insects.

Destruction of this fragile ecosystem can take decades to restore. The area especially of the Sierra Pelona Mountains provide a national corridor for mule deer, bobcats and mountain lions. This habitat is -- has special value considering the destruction from the San Gabriel Mountain Station Fire in 2009. Loss of habitat is insidious because in this area it leads to habitat fragmentation.

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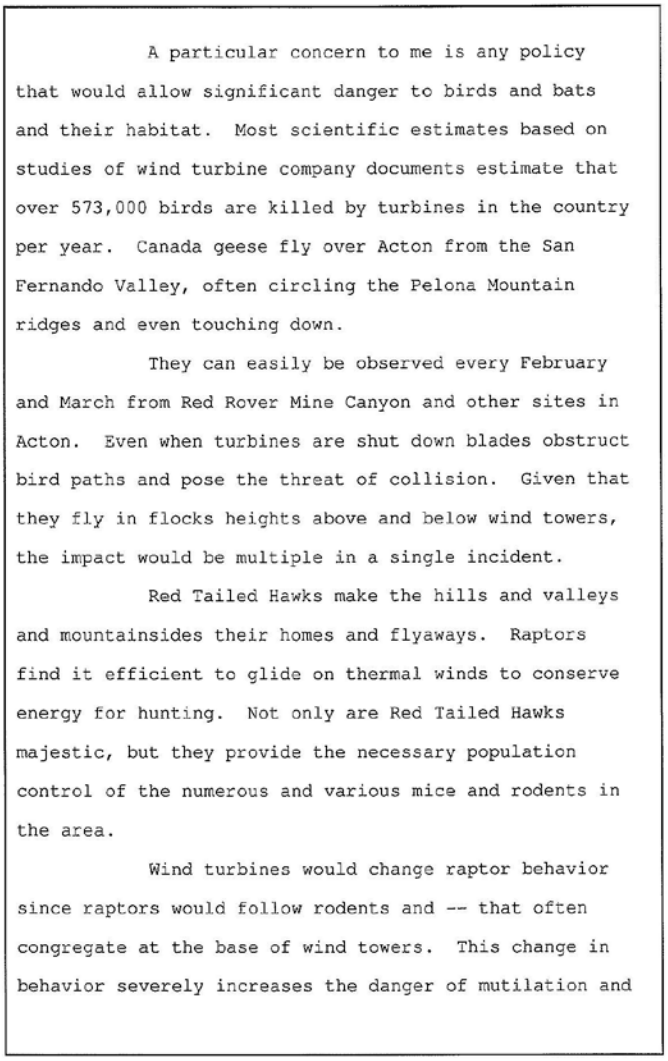

A particular concern to me is any policy that would allow significant danger to birds and bats and their habitat. Most scientific estimates based on studies of wind turbine company documents estimate that over 573,000 birds are killed by turbines in the country per year. Canada geese fly over Acton from the San Fernando Valley, often circling the Pelona Mountain ridges and even touching down.

They can easily be observed every February and March from Red Rover Mine Canyon and other sites in Acton. Even when turbines are shut down blades obstruct bird paths and pose the threat of collision. Given that they fly in flocks heights above and below wind towers, the impact would be multiple in a single incident.

Red Tailed Hawks make the hills and valleys and mountainsides their homes and flyaways. Raptors find it efficient to glide on thermal winds to conserve energy for hunting. Not only are Red Tailed Hawks majestic, but they provide the necessary population control of the numerous and various mice and rodents in the area.

Wind turbines would change raptor behavior since raptors would follow rodents and -- that often congregate at the base of wind towers. This change in behavior severely increases the danger of mutilation and

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death. Raptors tend to hatch only two chicks per year. So that very well could cascade.

Don't forget barn owls, quail, Brewer's Sparrows, Scrub Jays and so many others. Wisdom and courage would preserve the natural area. Wisdom and courage must prevail to preserve the natural area to guide policy, not utility interests or quick and thoughtless directives.

We will make the same -- will we make the same mistakes as in the Altamont Pass where at least 116 Golden Eagles and over 500 other raptors were killed per year in a study released in 2003? Thank you so much. I hope we get it right before it becomes --

MR. MODUGNO: Great. Thank you for that. By handing her the comments she'll pick them up correctly. So if you'll leave and if somebody else will take that seat. Thank you.

MS. RHYNE: I'm Margaret Rhyne. I'm president of Poppy Reserve/Mojave Desert Interpretive Association. I thank you all for using the Poppy Reserve today. Too bad you couldn't have gotten out of the vans and come up to the visitor center so we could share more of the wonders that we have to offer at the preserve and maybe even sell you a few things.

Because all the profits from our visitor

A-1 Cont.

B-1

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center go back to our nonprofit cooperating association which has a four decade history of support of people in the Antelope Valley who love the Poppy Reserve and the beautiful area that is the western Antelope Valley that you saw today. We also -- not only is this habitat valuable for native California wildflowers, but it's also a very important bird habitat. It's an autobahn, globally important bird area.

We are the last stronghold for hawks and Tricolored blackbirds in southern California. Just two weeks ago, a week and a half ago, March 13th, whatever that is, four juvenile Condors were photographed right over Quail Lake, which is very close to the Poppy Reserve.

And of course in the western Antelope Valley one just has to pray that they stay in LA County because if they venture into Kern County they are in danger of being sliced and diced by the wind turbines on that side of the Antelope Valley. I believe there's no place in LA County that's suitable for wind turbines.

I believe that you should have no provisions for those in the renewable energy ordinance. And certainly the provisions that are in there, the setbacks I believe are still very inadequate. But I would maintain that they -- you should have no provisions at

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all for wind turbines, industrial wind turbines -- not individual but industrial wind turbines in Los Angeles County.

And I want to now talk about something that's not in the renewable energy ordinance. I want to talk about -- quickly about the DRECP. I was very happy to see that there is going to be a re-evaluation of the counties in regards regard to the DRECP. I hope that there's a public process involved in that. You need to get public input on that.

Unfortunately the DRECP, the preferred alternative show areas completely surrounding the Poppy Reserve that according to this document were perfect for industrial solar. I think you would agree today having visited the reserve, our hiking trails are above the surrounding area. All of our hikers and visitors look down on the surrounding area.

And certainly having industrial solar out in that area would be extremely detrimental to the public's experience that they currently enjoy at the Poppy Reserve. However, there was one aspect of the DRECP that I applauded, and that is that it showed that there were no development focus areas in Los Angeles County for industrial wind.

And I would like to see that sentiment in

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the REO that also would reflect that there really is no place in LA County for industrial wind. And finally one more comment I would like to make, there was a good comment letter that the planning commission wrote on the DRECP. And one of the points they made was due to the experience that we have had in the Antelope Valley with soil palitus, that according to this they urged the DRECP to allow no chemical -- chemicals be put on the soil.

I know that the REO talks about nothing toxic, but I believe there should be no soil palitus allowed at all. Because what happens, they simply get airborne, they make it sticky and it attaches to our cars, and Lord knows what it's doing our lives.

Now I thank you for the opportunity to address you today. Thank you for coming to the Antelope Valley. Thank you for visiting the Antelope Valley California Poppy Reserve. Thank you.

MR. MODUGNO: Thank you very much. Any questions? Okay. Great. Thank you.

MS. AYER: Hello. My name is Jacqueline Ayer. And I am speaking here on behalf of the Acton Town Council. The town council has a number of problems with this ordinance. Currently for example the county requires for minor land divisions making large five acre

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lot parcels up to a two to one set aside of land for subdivisions.

Yet incredibly what I mean is if you want to develop one acre of land you have to acquire up to two acres, set it aside elsewhere for open space. No such mitigation requirements are imposed on any renewable energy project, even though such projects result in the wholesale destruction of thousands of acres of potentially pristine open space areas.

Another problem we have with it is the focus on FAA required safety lights. Community of Acton is crisscrossed by five new huge 500 kW transmission line segments, all of which have incredibly intrusive red lights that shine into people's bedrooms and they're very annoying.

The ATC just two nights ago at our ATC meeting -- we finally got Southern California Edison to admit that none of the lights that were installed in Acton were actually required by the FAA. So I urge the county to please in this ordinance make sure that if a utility tells you that those lights are required that they truly are required because they're incredibly disruptive in our communities such as Acton.

I'm also concerned that the ordinance doesn't go far enough to protect ridge lines. The draft

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ordinance only protects ridge lines from low profile solar projects and small-scale -- small-scale wind projects. It specifically omits ridge line protection provisions for utility-scale wind projects. In other words, this ordinance authorizes 500 foot high wind towers on Acton's significant ridge lines.

This ordinance does not protect ridge lines. In fact, it paves the way for their destruction.

There's also concerns with noise. The noise limit that is installed in this draft ordinance does not apply to utility-scale wind projects, which are the biggest problem. It considers no noise impacts to existing inhabited dwellings.

It ignores other uses such as equestrian facilities, animal rescue facilities, of which we have many in Acton. It ignores impacts to adjacent lands that are currently undeveloped. It is likely that such lands would be rendered worthless given the high noise threshold if this draft ordinance is allowed. It establishes a very high noise threshold that is entirely unsuitable for a rural community.

Rural ambient noise levels in communities like Acton are 45 decibels or less. This allows the noise level to go up to 60 decibels on a continuous basis. That is a tripling of the ambient noise level.

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If you aren't sure what 60 decibels sounds like, it's about stand three feet away from your washing machine on and that's what it sounds like. The limit needs to be set at 45 decibels.

It also needs to be established as a fence line limit, not a limit at a house that could be potentially a quarter of a mile away. I also have a number of concerns with dust, but I'm afraid I'm out of time. The soil biters do not work on access roads because they're not intended for trafficked areas. And I have other things to say --

MR. MODUGNO: Thank you. And also thank you for the letters that you've submitted.

MS. AYER: Thank you very much. I appreciate it. I hope they were useful.

MR. MODUGNO: And by the way, we do have a -- I think we have a question.

Okay. I was just going to say that -- appreciation for the letters. This hearing that we're really having today is really part of a process of hearings. That if we conclude today this ordinance has to go to a board of supervisors. So if you had additional comments this case remains open until the board of supervisors takes final action.

So you notice even the CEQA document that

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was stated, that period ends on April the 6th, which is after today. So we've been told by county council that we're in our -- certainly within our realm of actionable items to be able to take action on this item should we choose to today, and the environmental period remains open.

So any written testimonies that you want to provide please make sure that they still come into regional planning because they will be part of the case. But any documents that you want to get towards the CEQA piece have to be submitted by April the 6th to be addressed before the issuance of final EIR.

Is that correct, Elaine, or do you want to --

MS. LEMKE: No, that's all correct. The only thing I would add is that if anybody is giving testimony today and you do have written comments and you don't get through them and if it includes testimony that you haven't sent in earlier by letter or something like that and you'd like it to get into the record you can give that -- those comments to the staff and that will be part of the administrative record.

MR. MODUGNO: Thank you. Yes, no voices go unheard. Okay. Two gentleman now.

MR. CROISDALE: Christopher Croisdale,

president of the Acton Town Council. Just to clarify, we've never been contacted or consulted on any of this. We've been provided paperwork after the fact, and no one's spoken to us about this. Secondly, it is just kind of evident to me that this is being done for utility owners that don't live in our areas and prosper, while our personal lifestyles and property values will suffer.

2.5 acres for a small-scale solar system is too large. A draft ordinance allows small-scale solar energy systems to occupy up to two and a half acres of land. This limit can easily be increased nearly by a minor CUP. However, the amount of energy generated by two and a half acres of solar rays is nearly one gigawatt hour per year, which is enough to support 75 homes.

Obviously generation from two and a half acres of solar panels would greatly exceed the on-site energy need of any residential parcel. So such system on a residential agricultural lot implicitly fail to meet the definition of small-scale system. Besides this, allowing two and a half acres in a residential area would inappropriately introduce significant glare, dust, water use impacts, along with the maintenance that would go along with that system.

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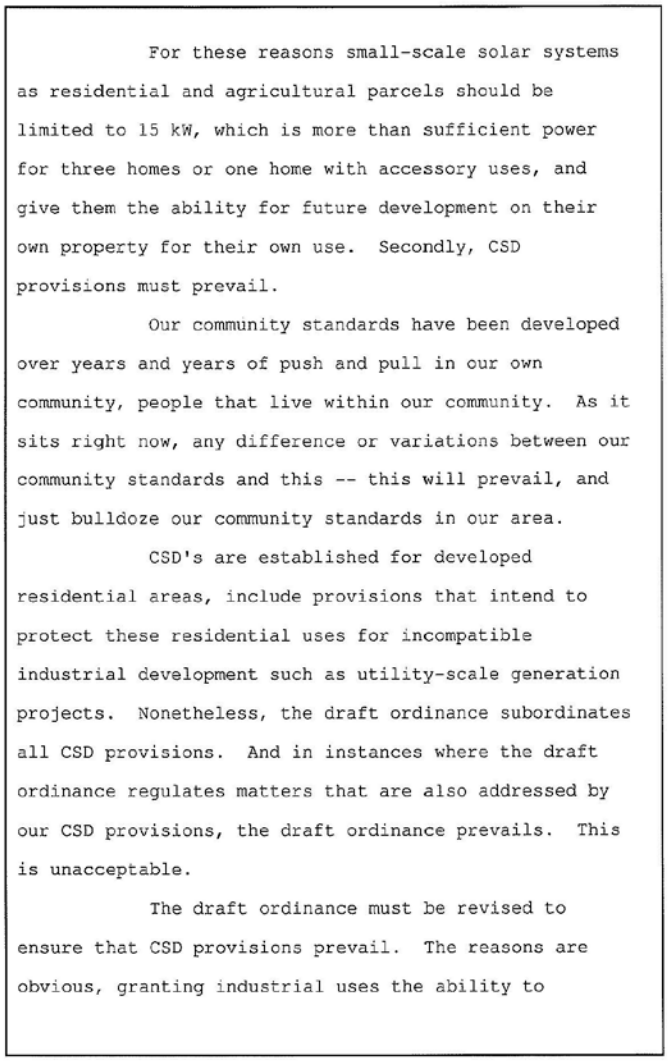

For these reasons small-scale solar systems as residential and agricultural parcels should be limited to 15 kW, which is more than sufficient power for three homes or one home with accessory uses, and give them the ability for future development on their own property for their own use. Secondly, CSD provisions must prevail.

Our community standards have been developed over years and years of push and pull in our own community, people that live within our community. As it sits right now, any difference or variations between our community standards and this -- this will prevail, and just bulldoze our community standards in our area.

CSD's are established for developed residential areas, include provisions that intend to protect these residential uses for incompatible industrial development such as utility-scale generation projects. Nonetheless, the draft ordinance subordinates all CSD provisions. And in instances where the draft ordinance regulates matters that are also addressed by our CSD provisions, the draft ordinance prevails. This is unacceptable.

The draft ordinance must be revised to ensure that CSD provisions prevail. The reasons are obvious, granting industrial uses the ability to

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sidestep community protection provisions by right undermines the entire CSD structure.

Any renewable energy proponent wishing to develop a project that has not complied with a CSD provision should be required to go through the variance process, just like any other project proponent that wishes to avoid CSD requirements. Energy developers should not be granted a perfunctory pass to allow and completely ignore the very development standards that communities have fought hard for and protects residents from development.

Thirdly, the threshold for avoiding compliance is too low. The draft ordinance does not adequately protect rural communities from the glare, noise, dust, lights, water resource impacts of renewable energy projects. And it facilitates the industrialization of rural communities, the ruination of significant ridge life and the violation of our communities standards. Thank you very much.

MR. MODUGNO: Great. Thank you, sir. Questions?

MR. MORGAN: My name is Curtis Morgan. I'm a member of the Concerned Citizens of the Western Antelope Valley. I have just three requests for each of you commissioners. I'll make them simple. And this is

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D-4

E-1

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especially for Mr. Pederson. You -- your staff member Mr. Lee alluded to the letter you have received today from Three Points Town Councils and the Association of Rural Town Councils.

Of this area our town councils are very important to us. And they are just interwoven into our daily lives. We take them very seriously. I encourage each of you to read that letter carefully, take it to heart and insist that the staff members read it. It has items on it that need to be incorporated into this ordinance.

You've put three years into this. You're nearing the final ordinance, but this is not ready to be voted on. My second request is it's not clear to us if you can vote this in today. I urge you not to because it's not a complete document. There are many, many small minor flaws in it that can be easily corrected if you'll just take a look at this letter.

My third request is do not allow industrial scale wind projects in the Antelope Valley. You've heard a lot of reasons why. I won't go into it in detail. But they don't belong up here. They do not belong up here. Thank you for coming up to the Antelope Valley.

MR. MODUGNO: Thank you, Mr. Morgan.

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MS. ZAHNTER: Good afternoon. My name is Susan Zahnter. I am acting director of the Association of Rural Town Councils, vice president of the Three Points-Liebre Mountain Town Council. And I'm here today representing the Association of Rural Town Councils. And those communities and town councils are Acton, Lake Los Angeles, Leona Valley, Oso, Three Points-Liebre Mountain Town Council and the new community group Concerned Citizens of the West Antelope Valley which were all listed in the letter that I submitted on behalf of the ARTC.

F-1

Several people have already touched on points that are really important. One -- a few things that have come through discussions at ARTC meetings is the issue of water. Water use is crucial, the areas under adjudication right now. There will be limits on how much water can be used.

And in the ordinance in order for a project to use recycled water they have to be within one mile of a purple hydrant. That is inadequate. They must be required to use recycled water. What will happen when even small-scale use and large-scale solar use will concentrate in certain areas of larger five acre and plus parcels?

F-2

Those water uses from local water agencies

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and wells will cause a concentration of use in particular areas that aren't really addressed by this ordinance. So what you'll see is the water disappearing from the local residents in order to supply utility and water considered in this ordinance small-scale, which was discussed previously.

The small-scale renewable energy definitions need to be refined so that it really does address primarily -- and that's the key word in there, on-site use. So if you have on-site use that will supply 55 to 78 homes it doesn't really sound like individual on-site use. Although I promote distributed generation, and I think that's the point.

So -- and then dust control. So far there hasn't been any adequate dust control supplied to any of the industrial scale utility projects. There's been a 500 percent increase in the incidents of Valley Fever. Watering causes the fungal bloom. So when you use water to suppress dust, that creates an additional problem.

Fire, I would like to ask that you add an aviation review for rural areas that use aviation fire fighting almost exclusively in and around utility-scale wind projects, that would be impossible. Also, the CSD's minor conditional use permits that allow for non-conforming lots and increasing small-scale utility

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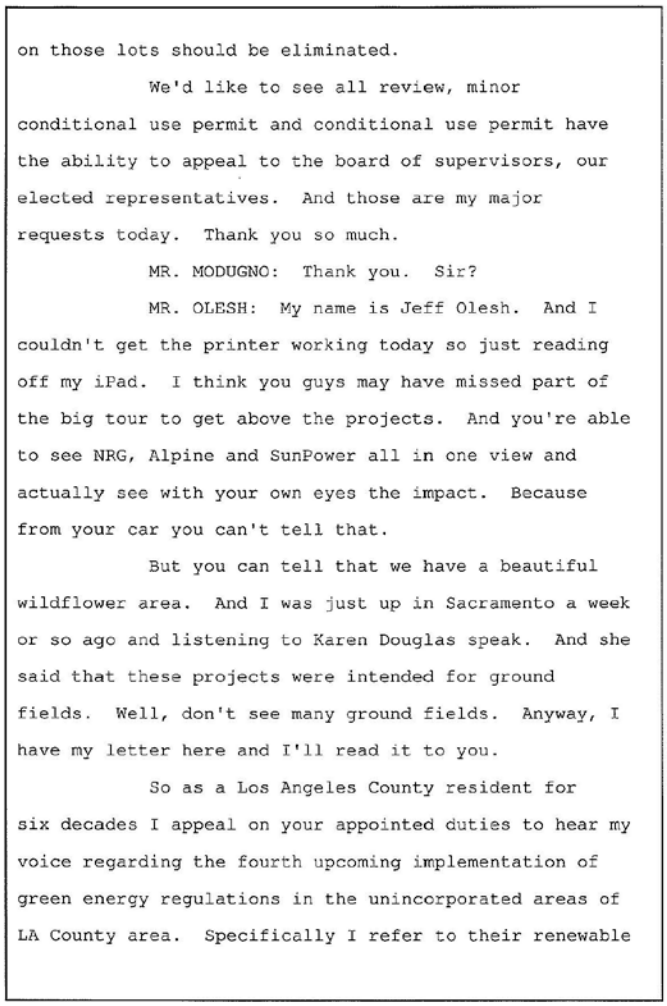

on those lots should be eliminated.

We'd like to see all review, minor conditional use permit and conditional use permit have the ability to appeal to the board of supervisors, our elected representatives. And those are my major requests today. Thank you so much.

MR. MODUGNO: Thank you. Sir?

MR. OLESH: My name is Jeff Olesh. And I couldn't get the printer working today so just reading off my iPad. I think you guys may have missed part of the big tour to get above the projects. And you're able to see NRG, Alpine and SunPower all in one view and actually see with your own eyes the impact. Because from your car you can't tell that.

But you can tell that we have a beautiful wildflower area. And I was just up in Sacramento a week or so ago and listening to Karen Douglas speak. And she said that these projects were intended for ground fields. Well, don't see many ground fields. Anyway, I have my letter here and I'll read it to you.

So as a Los Angeles County resident for six decades I appeal on your appointed duties to hear my voice regarding the fourth upcoming implementation of green energy regulations in the unincorporated areas of LA County area. Specifically I refer to their renewable

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energy ordinance.

I am the treasurer and elected board member of the Lake Elizabeth Water Company, as well as a board member for the Transition Habitat Conservancy. It is my honor and privilege to be able to serve these two entities. They are both unpaid positions and are important and necessary civic duties.

Given this and the concerns that come from their respective responsibilities I have a few questions to ask and I'd ask you to consider in regards to the third renewable energy coordinates and its impact on our rural community in Los Angeles County.

The following are all in the spirit of sustainable, habitable and reasonable living space for all of us. The following is in regards to our REO Title 22. The question is do the community standards adopted by the lakes and valleys regarding ridge line setbacks of 150 vertical and horizontal override the 50 kW in their renewable energy ordinance.

If not why have the community standards -- why do we have community standards at all? Section C 22.52, page 57, completely and totally removes any language regarding impact of utility-scale development on birds and bats. The fact of the matter is there is provable negative impacts on birds and bats insofar as

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these projects are concerned.

The language from draft two should be reinstated recognizing that. I would like to take issue with the quarter mile setback and regulations 22.52 6035. They are saying a quarter mile. I would like to see it at two miles. And the same thing for 22.52 1635 point - A. They're saying the height of two wind turbines. I would like to see it at two miles.

You know how big those things are. You saw them across the valley and you were 20 miles away. Can you imagine a quarter mile -- two miles. Water quality is addressed on page 56 -- or 58. We need to have some sort of water table quality check every six months or so, every quarter, something like that. Thank you.

MR. MODUGNO: Okay. Great. Thank you so much.

MR. CHILD: Yes, we have another six speakers at this stage. So I'll call all six of them. Michael Hughes, Richard Skaggs, Paul Henreid, Barbara Rogers, Virginia Stout, David Brockie. Those are the six.

MR. MODUGNO: Okay. So if you'll all come forward. And two of you can -- I only saw three -- four. Okay. Great. So if one of you will begin with your name.

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G-2 Cont.

MR. HUGHES: I'm Michael Hughes with the Acton Town Council. I have a couple items to address and then some comments. The 50 kW for the small-scale wind energy system is entirely too large. The draft ordinance permits small-scale wind systems with 50 kW capacity. The commercial energy -- California energy commission classifies 50 kW winds generated or systems as intermediate utility-scale systems. Therefore 50 kW is hardly appropriate to be called a small-scale system.

A 50 kW wind system produces enough energy to support ten homes. Obviously a primary purpose of installing such a large system on residential or agricultural property would not be to generate power for on-site use, which is explicitly contrary to the definition stated in the intended small-scale system.

Small-scale wind system that are permitted on residential agricultural properties should be limited to 15 kW or less, which is more than sufficient to power three homes or one home with accessory uses. Relative to glare, the draft ordinance states all utility-scale solar energy facilities shall be designed and located in such a way to minimize reflective glare towards any habitable structure or adjacent properties as well as adjacent streets right of way.

This language is too vague and imprecise.

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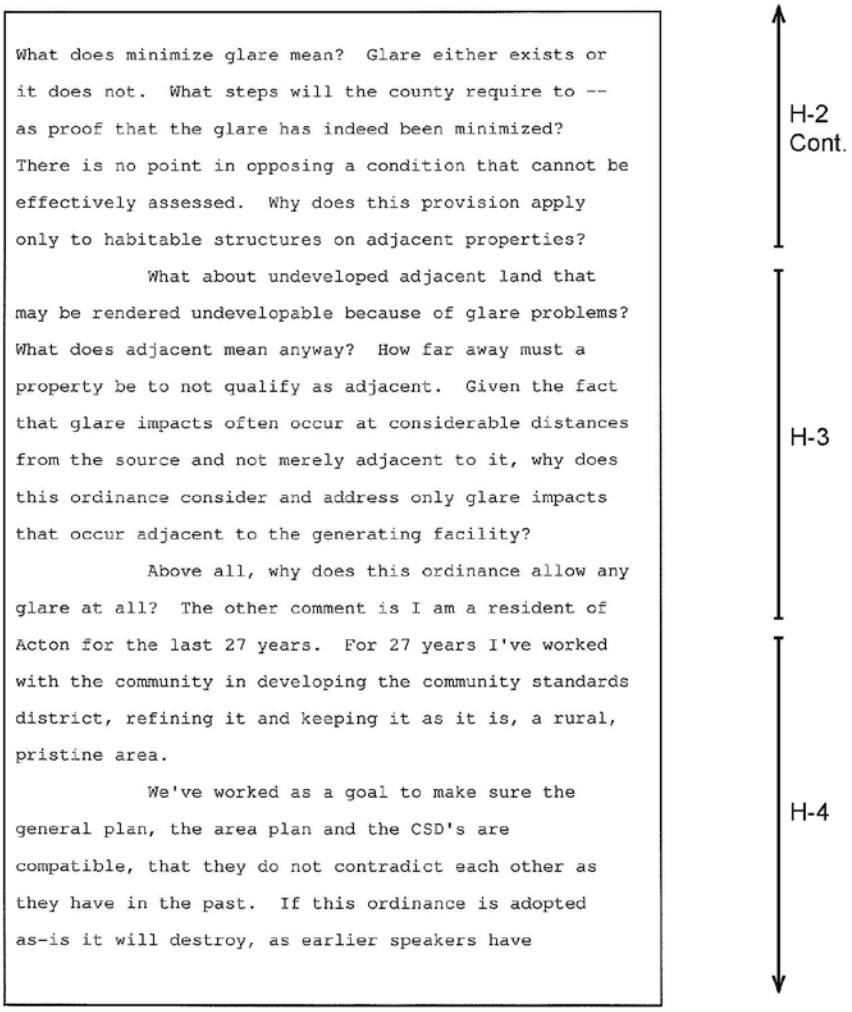

What does minimize glare mean? Glare either exists or it does not. What steps will the county require to -- as proof that the glare has indeed been minimized? There is no point in opposing a condition that cannot be effectively assessed. Why does this provision apply only to habitable structures on adjacent properties?

What about undeveloped adjacent land that may be rendered undevelopable because of glare problems? What does adjacent mean anyway? How far away must a property be to not qualify as adjacent. Given the fact that glare impacts often occur at considerable distances from the source and not merely adjacent to it, why does this ordinance consider and address only glare impacts that occur adjacent to the generating facility?

Above all, why does this ordinance allow any glare at all? The other comment is I am a resident of Acton for the last 27 years. For 27 years I've worked with the community in developing the community standards district, refining it and keeping it as it is, a rural, pristine area.

We've worked as a goal to make sure the general plan, the area plan and the CSD's are compatible, that they do not contradict each other as they have in the past. If this ordinance is adopted as-is it will destroy, as earlier speakers have

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indicated, the CSD's and their impact. They should be what rules things because that is your citizens from those communities that developed that. Thank you.

MR. MODUGNO: Thank you. Okay. Go ahead, sir.

MR. HENREID: Paul Henreid. There's a lot of good questions coming up in this hearing and there was several good questions I think in this correspondence from the Association of Rural Town Councils to the commission. It seems to me, you know, when I asked Mr. Nadel and Ms. Tae and Mr. Lee several months what's the rush that -- that question of what's the rush hasn't been fully answered.

And so I find myself in a position where I'm trying to catch up on all of these questions. And I know you all have a lot on your plate. You've got the town and country plan, you have the CSD's, and then you've a whole host of other things. So I find myself in a position saying I think the government is moving too fast. And I have to pour water on my face and say did I just say that.

They're moving too quick. The government should kick the canon not just this, but on a few things to address these issues. And I joked, I said I don't -- Ms. Tae and Mr. Lee, I don't even know if they're even

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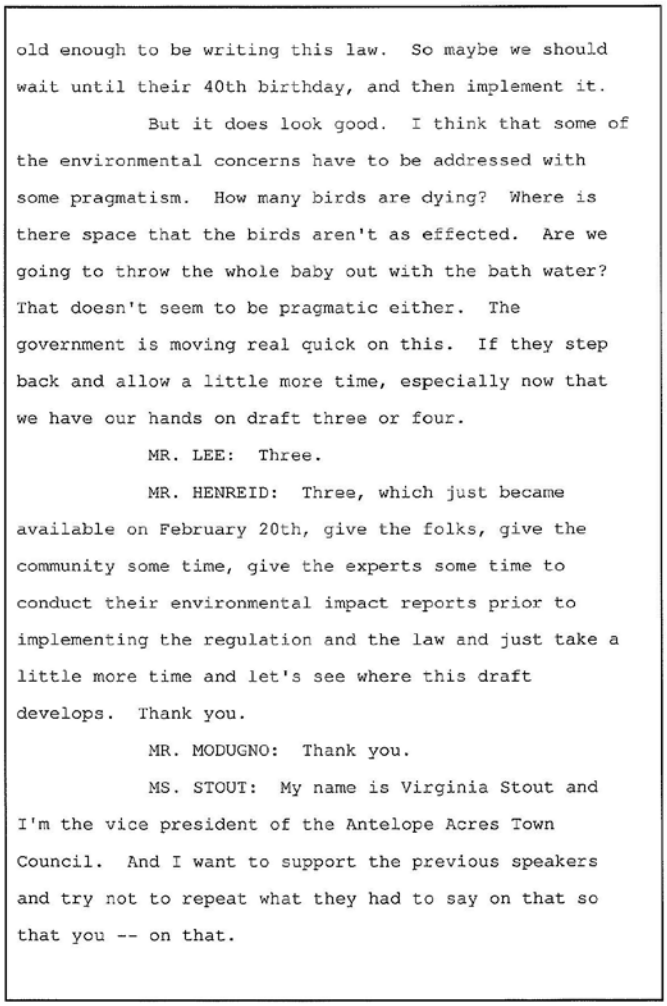

old enough to be writing this law. So maybe we should wait until their 40th birthday, and then implement it.

But it does look good. I think that some of the environmental concerns have to be addressed with some pragmatism. How many birds are dying? Where is there space that the birds aren't as effected. Are we going to throw the whole baby out with the bath water? That doesn't seem to be pragmatic either. The government is moving real quick on this. If they step back and allow a little more time, especially now that we have our hands on draft three or four.

MR. LEE: Three.

MR. HENREID: Three, which just became available on February 20th, give the folks, give the community some time, give the experts some time to conduct their environmental impact reports prior to implementing the regulation and the law and just take a little more time and let's see where this draft develops. Thank you.

MR. MODUGNO: Thank you.

MS. STOUT: My name is Virginia Stout and I'm the vice president of the Antelope Acres Town Council. And I want to support the previous speakers and try not to repeat what they had to say on that so that you -- on that.

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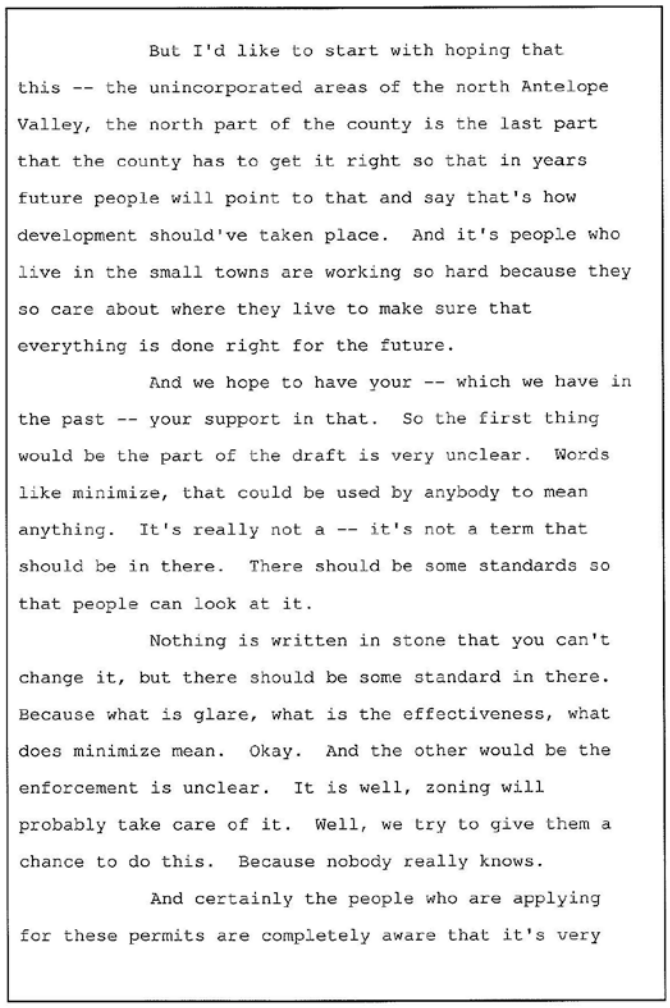

But I'd like to start with hoping that this -- the unincorporated areas of the north Antelope Valley, the north part of the county is the last part that the county has to get it right so that in years future people will point to that and say that's how development should've taken place. And it's people who live in the small towns are working so hard because they so care about where they live to make sure that everything is done right for the future.

And we hope to have your -- which we have in the past -- your support in that. So the first thing would be the part of the draft is very unclear. Words like minimize, that could be used by anybody to mean anything. It's really not a -- it's not a term that should be in there. There should be some standards so that people can look at it.

Nothing is written in stone that you can't change it, but there should be some standard in there. Because what is glare, what is the effectiveness, what does minimize mean. Okay. And the other would be the enforcement is unclear. It is well, zoning will probably take care of it. Well, we try to give them a chance to do this. Because nobody really knows.

And certainly the people who are applying for these permits are completely aware that it's very

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vague, that if they don't comply with something, well, there's wiggle room there. And there really shouldn't be because it's just too important. They just do too much damage on that. And something would be the minor CUP, again that cuts the public out of the process.

These utility-scale solar and wind shouldn't have a minor CUP for anything. The public should be able to be involved in all process. There isn't any part of this that's less important or say well, that doesn't really matter so much. It all matters because it's all cumulative.

And then the next one would be it seems that the biota -- your knowledge of animals and the badgers and the movement of the coyotes and where eagles nest and what they're doing out there, it seems like there's not a great deal of awareness of exactly what is going on out there.

There is no -- for instance, there's going to be miles of chain link fence down 110th already. Hopefully you saw the -- going up 110th the miles of solar -- that's just miles of chain link fence. There is no wildlife corridor for anything since you're chopping up where animals would meet, especially in the desert need large areas to forage.

And little small species and things in the

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wildlife and the wildflowers, that they need to feed on on that. And it just seems like everything is just, well, kind of haphazard. And we'd like to see some kind of wildlife corridor, some kind of actual knowledge. The eagles need more than just we'll stay away for one mile. Well, they just won't come. They'll leave.

There's no biological report that would support things like that. The hawks had come down to forage in the winter down in the valley floor. So -- and also the glare, you could clearly see if you got close enough where the solar panels are utility-scale. There's no -- I mean you can't miss them.

And if you're flying over and the birds and everything that sees them, you can't miss them. And at certain times of the day the sunlight hits them and from 10, 20 miles away you can see them and you have to look away if you're driving, if you're driving past them. So this idea of glare is not addressed right.

Okay. And so then we're also concerned that certain areas like the Santa Monica Mountains have much stricter rules for the aesthetics, for what they can't -- you can't destroy the ridge line, the scenes there.

And our beautiful San Gabriel and Tehachapi Mountains which you saw today, we value those as much as those people down there do, and we'd like to see these

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same strict requirements put on the entire valley, not just in sections given certain privileges. Thank you very much.

MR. MODUGNO: Thank you, ma'am.

MS. ROGERS: My name is Barbara Rogers. I'm the president of the Fairmont Town Council and a resident of Fairmont, where my husband and I live. We are in the center of where these utility size solar farms are coming in. I agree with most everything that the people have said thus far.

The biggest problem that we have with it is the decline in property values for the people that live in the area and the lack of protection for the biota, the wildlife. People that are nearby these things are going to find it nearly impossible to sell their properties.

And yet there's nothing that allows for their properties to be devalued with the assessor's office except filing a yearly appeal. That means that somebody's whose property cannot be sold because of these behemoths will not be able to sell their land and they will be continuing to pay property taxes that escalate by 2% a year for the duration of whatever time they own them.

There is nothing that allows the assessor to

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set a lower value and leave it that way for any kind of an extended period of time. It is something that would have to be re-done every year. And I think that's something that should be taken into consideration. And something should be written into to their ordinance to reimburse the people by these big huge companies for the loss in value of their properties.

Another thing, I agree with the wind tower thing. I don't think they should allow those in LA County. Those that are so huge that they just destroy the whole entire landscape. When I look out my kitchen window two miles from my home I see nothing but those wind gens that are in Kern County and red lights flashing at night. It's very distracting, it's not anything that you want to have to be subject to.

As far as the glare, for solar that's located on Avenue D, there are times, certain times of the year, depending on the azimuth of the sun, it's usually the spring or the fall, you can come over a little rise that's before you get there in the morning or in the afternoon and there will be glare that absolutely blinds you because you've got the sun up at a higher level.

Then you have the glare from the solar panels a little bit further down so you're looking at

K-1 Cont.

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one giant glare. Somebody is going to get killed because of that. Their landscaping is practically non-existent. This idea that they have a CUP and the county is monitoring their landscaping is ludicrous. Nobody is monitoring it. That stuff has died many times and they've had to replace it.

But it hasn't done any good and there's absolutely nothing to shield the public from the glare as they travel that highway. And it is going to be a deadly highway because of that glare at some point. Anyway, that's all I've got. Thank you.

MR. MODUGNO: Thank you. Sir?

MR. SKAGGS: I want to thank all of you for being here today and I want to thank your wonderful staff that have been working with us over at the Oso Town Council. I'm the president of the Oso Town Council. And we have many meetings with your staff. And I have to say that we were so happy that we were able to bring a lot of the issues up.

The other thing I have to say is that I have to apologize to my neighbors because I was the first one to say that we should have solar and wind because I worked with the government before, and looking ways to cut back on oil, the use of oil. And I thought this was a wonderful idea to begin with in 19 -- matter of fact,

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in 2010.

The solar companies came in, we opened our arms to them as the communities, had barbecues for them, told them some of the things that we're concerned with. They said don't worry, you can trust us, we're going do the right thing for your communities. The government wants solar, they want windmills. Washington said we're putting up billions of dollars to promote wind and solar. I went to worship it. I went to Sacramento.

The same answer, we need wind, we need solar. Guess what? That was the biggest mistake I ever made. Because I had hikers on the Pacific Crest Trail who goes through my property, where we have Hikertown, where we catered to six hundred hikers last year. The biggest concern they had, their trails were destroyed by these solar and the wind companies that came in and put these large windmills up and covered the trails, tore down signs that said Pacific Crest Trail.

We got the government involved. They put the signs back up. But they said wind came first, before the trails. These were our new neighbors who said they wanted to help in the community. They said we're not going use a lot of water, we're going to make sure that we only use so much water. When that ends we're going to find other sources.

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There's many new sources out there that you don't need water to clean solar. There's electronic ways to do it. And there's DG for the ground. There's all kinds of things they could've done. What happened, as the last speaker spoke -- said, if you drive down 138, come to 170th -- 170th Street will you look at First Solar? That's the one. If you look at their property you'll see the trees are dead. It looks like a prison.

The people that come to visit from all over the world -- I mean we have hikers from all over the world -- they ask is there a prison up the road, is it safe. Yes, it's safe. That's the solar company. They were shocked. We said look, let's see how we can raise money to maybe grow some trees, help them at this point.

We ask a licensed contractor who had a federal and state license for landscaping. He said he would go over there and examine. He would tell us how much it would cost. We had a foundation that was going to help. He went over there, showed his license, showed the conditional use permit.

And they said to him this is a federal project, you have no right being here, we want you off this property. He wasn't on the property. He was close to. He said well, the Oso Town Council asked me to come

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over and look at this to see how we can help. They said we don't need your help, we don't care about you, the county doesn't care about you, and you're a nobody, get off the property. He did. Then he found out that water use -- you heard about water.

MR. MODUGNO: Yeah. Can I just ask you to sort of wrap up your remarks.

MR. SKAGGS: Yes. Anyway, the water issue, we found that the West Valley Water District was selling water at a low price to the solar companies delivering it from Three Points, 20 some miles away. This is our drinking water being used for dust control. Several thousands and thousands and thousands -- hundreds of thousands of water missing and no one seems to know what happened.

We brought this up to Mr. Lee, we had a meeting there. Everybody was concerned about this missing water, and it's been going on for a year and a half, 135 trucks a month delivering 3,500 gallons. Comes to a lot of water. Our water table is dropping there. And guess what, it's the solar companies that we asked to use recycled water.

Instead they decided to use drinking water. And the answer is because once you deliver water that's for drinking use you cannot use it again for recycled

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water. Thank you very much.

MR. MODUGNO: Thank you so much.

Mr. Child, were there other speakers?

MR. CHILD: No, that's all the speakers.

MR. MODUGNO: Okay. That concludes the comments from the public. Thank you all very much for your input. And again reminder before the board of supervisors does take final action we welcome any additional comments, testimony in writing. And there will be other hearings.

Does staff want to get some sort of -- Mr. Lee, would you come back to the podium because I don't know if you want an opportunity to respond to some of the questions. Because otherwise I think the commissioners are going to have a series of questions that we might want to ask of you. I'll give you a chance first if you want to respond to some of the sort of general comments and questions that you heard.

MR. LEE: Thank you for the opportunity. No. 1, I guess to go -- to kind of shed light on the process, we have reached out to a lot of town councils and members of the public. The first two drafts were released a while back. So I understand this latest draft, you know, there wasn't as much time, but I think they've seen much of the language from before. It is

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Response to Oral Testimony A

Kathleen Trinity

A1 The comments presented by Kathleen Trinity were also submitted by her in written format at the public hearing. As such, responses to these comments are provided in Chapter 2, Response to Written Comments Received (refer to Responses 17-1 through 17-5).

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Response to Oral Testimony B

Margaret Rhyne, President of the Poppy Reserve/Mojave Desert Interpretive Association

B1 The commenter describes some of the biological resource and visual resources at the Poppy Reserve. The effects of the proposed Zoning Code amendments on biological resources, including plants, Swainson's hawk, tricolored blackbirds, and other avian species are addressed in Section 4.4 of the Draft EIR. The effects of the proposed project on scenic resources, including those observable from trails, are addressed in Section 4.1 of the Draft EIR.

B2 See Response C3-32 in Chapter 10 for a discussion about prohibiting such utility-scale wind energy facilities in the County. The analysis in the Draft EIR has been provided based on the setbacks requirements set forth in the proposed Zoning Code amendments. The setbacks proposed by the proposed Zoning Code amendments constitute baseline development standards where no specific standards are currently in place for these types of projects. Depending on site-specific considerations, more stringent requirements could be imposed for future projects in the form of mitigation measures or project design features. For more information on siting considerations for wind turbines, see Response O1-2 in Chapter 2.

B3 The commenter discussed the DRECP and states that the preferred alternative shows areas surrounding the Poppy Preserve as being suitable for utility-scale solar energy facilities. The commenter states that development of solar facilities in the vicinity of the Poppy Preserve would affect views from trails within the Poppy Preserve.

Section 4.1 of the Draft EIR addresses the effects of future utility-scale solar energy facilities on viewsheds. The proposed Zoning Code amendments provide a number of minimization measures to address the effects of such facilities on scenic resources, including height restrictions and setbacks from ridgelines. Furthermore, such projects would be subject to further discretionary approval and CEQA review, at which time any potentially significant effects to scenic resources would be identified and site-specific mitigation measures would be provided if required. The Poppy Preserve will be notified of future renewable energy projects proposed in the vicinity of the Poppy Reserve requiring discretionary approval and CEQA review.

B4 See Response B2 regarding prohibition of utility-scale wind energy in the County.

B5 See Response C2-37 for a discussion soil binders.

B6 This comment concludes the testimony; as such, no response pertaining to the proposed project or to the Draft EIR is required.

Response to Oral Testimony C

Jacqueline Ayer, on behalf of the Acton Town Council

C1 This comment is introductory in nature and expresses that the Acton Town Council has a number of concerns with the proposed Zoning Code amendments. These concerns are detailed in the testimony that follows and are addressed in the responses below.

C2 See Response I4-11 in Chapter 2 for a discussion of mitigation land requirements.

C3 See Response C2-20 and I4-10 in Chapter 2 for a discussion of FAA-required lights.

C4 See Response I4-8 for a discussion of concerns regarding ridgeline setbacks.

C5 See Response C2-46 through C2-50 for a discussion of concerns related to noise requirements.

C6 See Response C2-46 through C2-50 for a discussion of concerns related to noise requirements.

C7 See Response C2-46 through C2-50 for a discussion of concerns related to noise requirements.

C8 See Response C2-37 for a discussion of concerns related to soil binders.

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Response to Oral Testimony D

Christopher Croisdale, President of Acton Town Council

D1 See Response C2-2 in Chapter 2 for a discussion of review periods and noticing of the Draft EIR. Social and economic concerns, including property values, need not be considered in an EIR. See CEQA Guidelines section 15064(e).

D2 See Response S1-15 and C2-34 in Chapter 2 for a discussion of the proposed maximum allowable size for small-scale ground-mounted solar energy systems. For information regarding the types of measures that these systems would be subject to, see Responses S1-12 (describes avoidance and minimization measures incorporated into the proposed Zoning Code amendments), S1-14 (describes adherence to state requirements), and S1-16 (describes other applicable County policies).

The potential effects listed in this comment (glare, dust, water use, and activities involved with maintenance) are addressed in the EIR. Section 4.1 discusses glare and Sections 4.3 and 4.6 address dust. As required by CEQA, the EIR for the proposed Zoning Code amendments addresses all phases of future projects developed pursuant to the Zoning Code amendments. As such, the environmental effects of maintenance are captured in the analysis within the EIR.

This comment recommends limiting small-scale ground-mounted solar energy systems within residential and agricultural parcels to 15 kW. For a response to previous recommendations to limit such systems to 15 kW, see Response I4-12.

D3 See Response C2-8 for a discussion of the relationship between Community Standards Districts (CSDs) and the proposed Zoning Code amendments.

D4 This comment states that the "threshold for avoiding compliance is too low". The County assumes that this refers to the Modifications section of the proposed Zoning Code amendment. See Response C1-16 for further information about the Modifications process. This comment also states that the proposed Zoning Code amendments would not adequately protect rural communities from glare, noise, dust, lights, and water resources impacts of renewable energy projects. This EIR evaluates the environmental effects of future renewable energy projects developed pursuant to the proposed Zoning Code amendments (glare is addressed in Section 4.1, noise is addressed in Section 4.12, fugitive dust is addressed in Sections 4.3 and 4.6, light is addressed in Section 4.1, and water resources are addressed in Sections 4.9 and 4.17). Additionally, the proposed Zoning Code amendments include development standards that would address and minimize these effects. However, because the site-specific

details of future projects cannot be known at this time, the EIR conservatively identifies potentially significant effects in some of these categories.

The proposed Zoning Code would implement development standards for solar energy projects and utility-scale wind energy projects where there currently are none. As such, the analysis in the Draft EIR identifies increased impacts to the environment in the event that no provisions for renewable energy projects are incorporated into the Zoning Code (i.e., the "No Project Alternative;" see Chapter 6 of the Draft EIR).

Response to Oral Testimony E

Curtis Morgan, Member of Concerned Citizens of the Western Antelope Valley

E1 This comment refers to the letter submitted to the County by the Three Points Town Council and the Association of Rural Town Councils and asks that the County review and consider those letters.

The letter from the Three Points–Liebre Mountain Town Council dated March 12, 2015, and the letter from the Association of Rural Town Councils dated March 16, 2015, are included in this Final EIR as Comment Letter C2 and C3, respectively. The County has reviewed these letters, and responses to comments in the letters pertaining to the environmental document are included in Chapter 10 of this Final EIR. Revisions to the proposed Zoning Code amendments made in response to those letters are noted in the written responses to those letters in Chapter 10.

E2 The commenter urges the Regional Planning Commission to wait to recommend approval of the proposed Zoning Code amendments. As such, no response pertaining to the proposed project or to the Draft EIR is required; however, it is noted that the matter was continued to a hearing held on April 8, 2015 and again to a hearing held on April 22, 2015. The County Board of Supervisors has approval authority for the proposed project and will consider the commenter's oral testimony before making a decision on the project.

E3 See Response C3-32 in Chapter 10 for a discussion about prohibiting such utility-scale wind energy facilities in the County.

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Response to Oral Testimony F

Susan Zahnter
Acting Director of the Association of Rural Town Councils
Vice President of the Three Points–Liebre Mountain Town Council

F1 This comment lists the members of the Association of Rural Town Council. The letter signed by these town councils is contained in Chapter 10 of this Final EIR and is labeled as Letter C3 in that chapter. Responses to comments in this letter pertaining to the environmental document are included in Chapter 10 of this Final EIR. A second letter was received from the Association of Rural Town Council with one additional signee (the Quartz Hill Town Council). This letter is labeled Letter C4 in Chapter 10 of this Final EIR.

F2 See Response R2-6 and C2-45 for a discussion about recycled water requirements.

F3 This comment expresses concern about water supply and use of water for ground-mounted renewable energy projects (both small-scale and utility-scale). Water supply is addressed in Section 4.17 of the EIR in response to the County CEQA threshold which states "Would the project 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?"

The analysis in the EIR concluded that potentially significant effects could occur as a result of both small-scale and utility-scale renewable energy projects relative to water supply. The impact determinations were partially based on the current conditions of groundwater in the Antelope Valley. However, the EIR also notes that before a future project can connect to a water district system, approval must be obtained, and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. Furthermore, for projects subject to discretionary review (all wind energy projects and utility-scale ground-mounted solar energy projects), this same CEQA threshold criterion dealing with water supply would need to be addressed. As such, the specific water use and water requirements of future discretionary projects would be evaluated on a project-by-project basis. Furthermore, CEQA requires analysis of cumulative effects, so such analyses would also examine other reasonably foreseeable or proposed projects occurring in the vicinity that may also require water. Mitigation was also provided in the EIR to address potentially significant effects to water supply. This mitigation measure (MM HYD-1) would apply to small-scale wind energy systems, temporary MET towers, utility-scale ground-mounted solar and wind energy projects,

and utility-scale structure-mounted wind energy projects and states that evaluation of groundwater resources may be required by the Department of Public Works when impacts to groundwater are determined to be potentially significant during CEQA review. This evaluation may include preparation of a groundwater resources investigation report.

Regarding the commenter's concern about small-scale ground-mounted solar energy systems, such systems would not likely be large in size (see Response S1-15). In the event that such a system were to require a connection to a water district system, approval must be obtained as described above, and the district must ensure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. Nonetheless, as indicated in Section 4.17 of the EIR, a potentially significant effect may result from such systems. County decision makers have the approval authority for the proposed project and will consider the information in these comments and in the Final EIR before making a decision on the project.

F4 See Response S1-15 in Chapter 10 for a discussion regarding the size of small-scale ground-mounted solar energy systems.

F5 See Responses C2-37 (soil binders), C2-38 (fugitive dust), C2-40 (dust control methods), C2-41 (Valley Fever), I15-4 (Valley Fever and size of small-scale ground-mounted solar energy systems), and I16-3 (air quality standards and Valley Fever) in Chapter 10 for a discussion of dust control and Valley Fever. This comment additionally states that watering a site to suppress dust may cause a fungal bloom, thereby contributing to incidents of Valley Fever. As discussed in the responses listed above, the proposed Zoning Code amendments and the air quality mitigation measures provided in the EIR allow for a variety of dust control methods to be implemented for utility-scale ground-mounted projects. Depending on site-specific conditions, additional or altered methods may be imposed as a condition of approval or as mitigation.

F6 The text of the proposed Zoning Code amendments has been revised in response to this comment. Aviation review would now include a request for consideration of uses such as utility-scale solar and wind energy facilities that may affect aviation fire fighting operations (see Appendix A). Per CEQA Guidelines Section 15088.5, this revision to the proposed Zoning Code amendments does not constitute a significant new change resulting in a need to recirculate the EIR.

F7 See Response C1-16 for further information about the Modifications process.

F8 CUPs may be appealed to the Board of Supervisors, while Minor CUPs may be appealed to the Regional Planning Commission. These are provisions of the existing Zoning Code, and the proposed Zoning Code amendments do not include any changes to these existing provisions. As such, this comment does not pertain to the project that is analyzed in this EIR. However, the recommendation for Minor CUPs to also be appealed to the Board of Supervisors will be included in the Final EIR for review and consideration by decision makers.

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Response to Oral Testimony G

Jeff Olesh

G1 This comment lists several existing renewable energy projects that were viewed by Regional Planning Commissioners on the day of the hearing. The commenter mentions that renewable energy projects are intended for brown fields and also references the wildflower areas in the Antelope Valley. The commenter states that there are not many brown fields in the area. However, no specific concern related to the Final EIR is presented. As such, no response pertaining to the proposed project or to the Draft EIR is required.

G2 This commenter submitted a written letter as well. The concerns brought forth in Comment G2 are also expressed in Comments I5-1 through I5-6. As such, refer to Responses I5-1 through I5-6 for respective responses to these comments.

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Response to Oral Testimony H

Michael Hughes
Acton Town Council

H1 See Response C2-35 of a discussion of the size of small-scale wind energy systems.

H2 See Response C1-2 for a discussion of glare impacts and minimization. This comment presents several additional questions that are not explicitly addressed in Response C1-2. The commenter states that "glare either exists or does not." Technically, there are varying degrees of glare that can be quantified by a lighting engineer. For example, the FAA has established a standard for measuring glint (a momentary flash of bright light) and glare (a continuous source of bright light) from solar energy systems and has developed thresholds for when these light sources would impact aviation safety (78 CFR 63276). The commenter also asks why the condition of approval related to glare only applies to habitable structures on adjacent properties. Residential uses are sensitive receptors for glare.

The condition of approval that is discussed in this comment would apply to projects that are subject to further discretionary approval and CEQA review. As such, additional or more specific glare measures may be required on a project-by-project basis. The proposed Zoning Code amendments are County-wide; as such, the conditions in the proposed Zoning Code amendments would apply to a geographically diverse area with a wide variety of land uses. Not all future utility-scale solar energy projects would be located near sensitive receptors for glare. As such, requiring a quantitative condition of approval for glare would not be feasible on the County-wide scale. Conditions of approval and mitigation for future projects would address site-specific and project-specific conditions such as surrounding land uses, type of PV technology, orientation of the PV panels, and site topography.

The commenter requests information about what steps the County would require to confirm that glare minimization measures are met. Regional Planning conducts regular condition checks to determine if a permittee is complying with the approved conditions and mitigation measures. Additionally, Regional Planning sends a zoning enforcement officer to inspect a project if a member of the public submits a complaint regarding glare.

H3 This comment expresses concern that glare from solar projects may render adjacent properties undevelopable. Social and economic concerns, including property values, need not be considered in an EIR. See CEQA Guidelines section 15064(e).

As stated in Response H2, proposed projects that would be subject to the condition of approval that is discussed in this comment would also be subject to further discretionary approval and CEQA review. At that time, additional glare-related measures may be identified as necessary.

The commenter also asks why the proposed Zoning Code amendments allow any glare at all. The proposed Zoning Code amendments provide baseline guidelines for renewable energy projects and are not intended to fully mitigate all potentially significant effects of renewable energy projects that have the potential to occur in the future.

H4 See Response C2-8 for a discussion of the relationship between Community Standards Districts (CSDs) and the proposed Zoning Code amendments.

Response to Oral Testimony I

Paul Henreid

I1 The commenter requests that more time be spent developing the proposed Zoning Code amendments. Although this comment does not pertain to the environmental analysis in the Final EIR, this request will be included in the Final EIR for review and consideration by decision makers.

I2 Environmental concerns of future projects developed pursuant to the proposed Zoning Code amendments are addressed in this EIR. Wind energy projects and utility-scale ground-mounted solar energy projects are addressed at a programmatic level in the EIR, while small-scale solar energy systems and utility-scale structure-mounted solar energy facilities are evaluated at the project level. See Section 10.1 for a discussion of programmatic-level versus project-level analysis. However, because the EIR is County-wide and because most project types are evaluated at the programmatic level, project-specific effects such as number of bird kills are not specified. As stated in Response O1-2, the program-level analysis of the effects to birds and bats provided in the EIR includes a description of the potential bird and bat species at risk in the planning area, a discussion of areas of potential high bird abundance, and a discussion of potential bird migration routes. The specific risk posed to birds and bats from wind turbines would depend upon the specifics of the proposed project, the proposed project site, and the bird and bat use and behavior at the site.

Project-specific and site-specific environmental effects would be evaluated on a project-by-project basis for all program-level projects (i.e., wind energy projects and utility-scale ground-mounted solar energy projects). The proposed Zoning Code amendments would establish baseline standards for utility-scale wind energy projects and solar energy projects where there currently are none. Decision makers would have the ability to approve, deny, or conditionally approve all future wind energy projects and utility-scale ground-mounted solar energy projects.

I3 See Response I1.

I4 See Response I1. The Draft EIR was release on February 20, 2015, and the Final EIR is contained herein for consideration by County decision makers.

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Response to Oral Testimony J

Virginia Stout
Antelope Acres Town Council

J1 This comment provides opinions regarding land use development in the north Antelope Valley. No issues pertaining to the EIR are addressed; however, this comment will be included in the Final EIR for review and consideration by decision makers. The proposed project would put development standards in place for utility-scale renewable energy projects and solar energy projects where there currently are none. The proposed project has been developed over the course of three years with input from a variety of stakeholders, including the community members in the unincorporated areas of the Antelope Valley.

J2 This comment expresses concern regarding words such as "minimize," "effectiveness," and "glare." See Response C1-2 for a discussion and definition of glare. Glare is also characterized in Section 4.1 of the EIR. There are no instances of the term "effectiveness" in the currently proposed version of the Zoning Code amendments. The term "minimize" is used primarily in the proposed findings and conditions of approval for future solar and wind energy projects that would be subject to further discretionary review and approval. As these projects would be subject to additional CEQA review, impacts would be evaluated on a project-by-project basis and site-specific mitigation measures would be developed for potentially significant impacts as required under Section 15126.4 of the CEQA Guidelines.

J3 This comment brings up concerns about enforcement of the Zoning Code and does not pertain to the analysis in the EIR. For any future projects that are not in compliance with the proposed Zoning Code amendments, the Director of Regional Planning or designee is authorized to issue a Final Zoning Enforcement Order. In the event of a complaint, a zoning enforcement officer inspects the property and requests information to confirm compliance, as necessary.

J4 See Response I4-20. As stated in this response, the types of utility-scale projects that would be allowable with a Minor CUP would be limited to those that are structure mounted. This indicates that these projects would be limited in size by the sizes of structures and would be affixed to the tops of existing developments such as residences, carports, commercial buildings, or office buildings. Furthermore, it is noted that the term "utility-scale," as it is defined in the proposed Zoning Code amendments, does not necessarily entail a system that is large in size. Utility-scale renewable energy projects are those that supply energy primarily for off-site use. For

further descriptions of these projects and of the assumptions that were used to evaluate them under CEQA, see Sections 3.3.2.4, 3.3.2.5, and 3.3.3 of the Draft EIR. No utility-scale ground-mounted renewable energy projects would be allowable with a Minor CUP.

Furthermore, Minor CUPs would require discretionary approval, further project-level CEQA review, and a public hearing.

J5 This comment states that there is a lack of knowledge about wildlife and wildlife movement in the County. Section 4.4 of this EIR describes the existing biological resources that are present across unincorporated Los Angeles County and provides additional detail regarding special-status species that are typically most susceptible to impacts from renewable energy projects. This information was compiled from a number of sources, including the General Plan Update, anticipated to be officially adopted in July 2015, which contains an appendix (Appendix E) that describes the biological resources present within each proposed SEA and Coastal Resource Area. The information in this appendix is supported by over 400 citations from literature on biological resources in the County. Figure 9.2 in the General Plan Update shows generalized regional habitat linkages within the County. The EIR that was written for the General Plan Update also includes a section evaluating the programmatic effects of General Plan implementation on the biological resources within the County. This section characterizes plant communities, wildlife, sensitive species, wildlife movement corridors, and wildlife linkages within each of the General Plan Update Planning Areas.

Impacts of future renewable energy projects developed pursuant to the proposed Zoning Code amendments are addressed in Section 4.4.4 of this EIR. Discretionary approval for wind energy projects and utility-scale ground-mounted projects would require additional review under CEQA, during which time project-specific and site-specific biological effects would be evaluated. This comment also presents concerns regarding fences and resulting impacts to wildlife. See Response C2-16 for a discussion of concerns related to fences.

J6 This comment also presents concerns regarding wildlife corridors. See Response C1-6 for a discussion of the recommendation to include requirements for wildlife corridors in the proposed Zoning Code amendments. This comment also recommends greater setbacks for golden eagles. This recommendation will be included in the Final EIR for review and consideration by decision makers. However, it is noted that this setback was developed in consultation with biological experts. Furthermore, this setback is consistent with or more stringent than similar setbacks required by wind energy

ordinances that have been adopted in other California counties. For example, Marin County requires setbacks of five times the total height or 300 feet (whichever is greater) from a known nest or roost of a listed State or Federal threatened or endangered species or CDFW-designated bird or bat species of special concern. This setback is less than the one-mile golden eagle nest setback requirement of the proposed Zoning Code amendments, given a facility height of 500 feet. San Diego County requires a setback of 4,000 feet between small wind turbines and known golden eagle nest sites. Under San Diego County's Zoning Ordinance, such small turbines are allowable with a ministerial permit. Additionally, in a comment letter on San Diego County's wind energy ordinance, CDFW recommended a 1-mile buffer between small turbines and golden eagle nest sites.

J7 This comment presents concern related to glare. See Response H2 in this chapter and C1-2 in Chapter 10 for discussion on glare.

J8 See Response C1-8 for information about the Coastal Zone and the California Coastal Act of 1976, which contains specific provisions to preserve coastal views.

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Response to Oral Testimony K

Barbara Rogers
President, Fairmont Town Council

K1 Social and economic concerns, including property values, need not be considered in an EIR. See CEQA Guidelines section 15064(e). Potential effects to wildlife and biological resources are addressed in Section 4.4 of the EIR.

K2 See Response C3-32 in Chapter 10 for a discussion about prohibiting such utility-scale wind energy facilities in the County.

K3 This comment presents concern related to glare. See Response H2 in this chapter and C1-2 in Chapter 10 for discussion on glare. Hazards to humans as a result of glare is addressed in Section 4.8 of the EIR. A potentially significant effect was identified relative to the potential for future small-scale solar energy systems and utility-scale structure-mounted solar energy facilities to result in ocular obstruction.

K4 This comment presents concern regarding maintenance of landscaping on the sites of renewable energy projects. This comment does not pertain to the environmental analysis in the Draft EIR. However, the proposed Zoning Code amendments would set forth requirements for future utility-scale ground-mounted solar and wind projects that would require maintenance of landscaping. (See Response C1-11 for a summary of these measures.) As such, this concern would be addressed through the proposed project. Regarding enforcement of the proposed Zoning Code amendments, the Director of Regional Planning or designee is authorized to issue a Final Zoning Enforcement Order for any future projects that are not in compliance with the proposed Zoning Code amendments.

K5 This comment pertains to glare and the potential for hazardous conditions to result. See Response K3.

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Response to Oral Testimony L

Richard Skaggs
President, Oso Town Council

L1 This comment is introductory in nature; as such, no response pertaining to the proposed project or to the Draft EIR is required.

L2 This comment describes a personal experience and does not pertain to the analysis in the Draft EIR.

L3 This comment expresses concerns regarding water use and landscape maintenance. Water use and water supply is discussed in Response C2-45 in Chapter 10 and in Response F3 in this chapter. Concerns regarding landscaping maintenance area addressed in Response C1-11 and in K3.

L4 This comment expresses further concerns regarding water use and landscape maintenance. See Response F3 (water use and supply), Response C2-45 (description of measures that would be part of the proposed project that would serve to monitor and regulate water use of future utility-scale ground-mounted projects), and Response C1-11 (description of landscaping requirements), and Response K3 (enforcement procedures).

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10.4 RESPONSE TO LATE LETTERS

A number of letters were submitted to Regional Planning after the close of the 45-day comment period of the Draft EIR. Late letters were received from individuals, community organizations, and one corporation. Individuals who submitted late letters are as follows: David McCrae, Sandra McCrae, Judy Watson, Jill Moran, Judith Fuentes, and Kathleen Trinity. Community organizations that submitted late letters are as follows: Agua Dulce Town Council, Antelope Acres Town Council, and Three Points–Liebre Mountain Town Council. The corporation that submitted a late letter is the Land Veritas Corporation.

The majority of the comments iterated in these letters expressed concerns and suggestions that are contained within other letters submitted during the comment period. As such, the majority of these comments are addressed in the responses above. One new issue regarding cumulative impacts was introduced in these late letters. Specifically, while cumulative effects were discussed in a variety of the comments and responses within Section 10.2, one of the attachments within the Land Veritas letter presented two cumulative projects not specifically named in the EIR (the Barren Ridge Renewable Energy Transmission Project and the Tehachapi Renewable Transmission Project). The analysis in Chapter 5 of this EIR considers the environmental effects of the proposed project in combination with growth in the region. The proposed project area consists of the unincorporated areas of the County, which total 2,650 square miles. The cumulative analysis in this document includes development in the unincorporated County and also encompasses development in adjacent jurisdictions. Due to the size of the project area and the programmatic nature of Zoning Code amendments, all related development projects are not specifically named in Chapter 5. Rather, as discussed in Section 3.5, the scope of the cumulative impact analysis is based on a list of approved and proposed renewable energy projects within unincorporated Los Angeles County (see Table 3-6) as well as the County of Los Angeles 2015 Draft General Plan and EIR. The two projects referenced in the Land Veritas letter are encompassed by this analysis. Due to the potential for future renewable energy projects in conjunction with other development in the region (including development of transmission lines) to result in potentially significant environmental effects, numerous cumulatively significant effects were identified (see Chapter 5). Any future utility-scale ground-mounted renewable energy projects developed pursuant to the proposed Zoning Code amendments would require an analysis of the project's cumulative effects to determine if impacts remain cumulatively significant.

Due to the association between transmission lines and utility-scale renewable energy development, the effects of transmission lines are also discussed throughout the EIR, particularly in the biological resources analysis and in the analysis of visual effects. This analysis assesses the effects of reasonably foreseeable future utility-scale projects that would include electrical lines, including transmission lines and/or generation tie lines.

This comment also references the cumulative effects of the Renewable Portfolio Standard established by the state. The DRECP was prepared in part as a result of this mandate and addresses the effects of renewable energy in the Mojave Desert at the regional scale (see Response C1-7 for a brief summary of the DRECP). An EIR and Environmental Impact Statement (EIR/EIS) was prepared for the DRECP. This document contains an analysis of the cumulative effects of renewable energy development in conjunction with other types of development on the Mojave Desert.

For the reasons described above, transmission line projects that have been or will be constructed as a result of increased renewable energy development are addressed in the cumulative analysis of this EIR, addressed in the programmatic analysis of this EIR in association with utility-scale ground-mounted facilities, and addressed on regional scale in the EIR/EIS for the DRECP.

Like many of the letters contained in Section 10.2, the letters submitted after the public review period closed primarily address concerns regarding the proposed Zoning Code amendments, rather than the environmental analysis of the proposed Zoning Code amendments in the Draft EIR. As with the letters included in Section 10.2, the late letters also set forth a variety of recommendations for changes to the proposed Zoning Code amendments. As with the requested changes contained in the letters included in Section 10.2, these requested changes will be reviewed by decisions makers before they decide whether to approve the project. The late letters received by the County contain a number of requests and suggestions for the proposed Zoning Code amendments that were not previously set forth in any of the comment letters contained within Section 10.2. These suggestions are listed below by topic.

Mitigation Lands

- Include the following guidance within the proposed Zoning Code amendments: "Renewable energy projects that require habitat or waters of the U.S. or State and/or CEQA mitigation are encouraged to utilize approved mitigation banks in Los Angeles County that have conservation easements and endowments in place to fund long-term habitat management in perpetuity. If a bank is not utilized, the applicant shall record a conservation easement on the mitigation lands and fund a conservation easement compliance and long term management endowment through a non-profit third party entity approved by the State of California to hold endowments" (Land Veritas)
- Require mitigation lands at a ratio of 2:1 and require such mitigation lands to be dedicated contiguous to existing open space areas

Noise

- Require private property, noise sensitive lands and land uses, wildlife and habitats, and public lands to be shielded from excessive noise
- Require renewable energy development projects to demonstrate that no adverse noise effects on adjacent uses will occur from the project
- Require provisions for preservation of quiet ambient noise levels for all renewable energy projects.

Increased Siting Restrictions

- Increase setbacks for wind energy as a safety measure, in the event that blades or turbines become detached from the wind tower and roll or bounce across the ground (Land Veritas, attachment six)
- Address the cumulative effects of utility-scale renewable energy facilities by specifying a percentage of lands zoned A-2 that can be developed with utility-scale renewable energy uses
- Mandate that only one small-scale wind energy system (consisting of only one wind tower) can be installed per parcel, no matter the size of the parcel

Air Quality and Greenhouse Gases

- Require monitoring and review of both the negative and positive effects of renewable energy development on reduction of carbon dioxide from the atmosphere (Land Veritas, attachment six)
- Require soil testing for Valley Fever spores at prospective sites for small-scale or utility-scale ground-mounted projects

Construction and Maintenance Measures

- Provide standards for temporary access roads (Land Veritas, attachment six)
- Identify more specific maintenance schedules for the required maintenance activities (Land Veritas, attachment six)

As described in Section 10.2, a variety of recommendations submitted by individuals, community planning groups, organizations, and agencies were incorporated into the proposed Zoning Code amendments. The recommendations above will be included in the Final EIR for review and consideration by decision makers.

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