

**FINDINGS OF FACT IN SUPPORT OF FINDINGS  
RELATED TO SIGNIFICANT ENVIRONMENTAL IMPACTS**

**State CEQA Guidelines Section 15091**

**for**

**Antelope Valley Solar Project by Renewable Resources Group**

Project No. R2010-00808-(5)  
Conditional Use Permit No. 201000071  
Environmental Assessment No. 201000032

**Final Environmental Impact Report  
SCH# 2010031022**

**Lead Agency: Kern County Planning and Community Development Department  
Responsible Agency: Los Angeles County**

**SECTION I. INTRODUCTION**

The following findings of fact are based in part on the information contained in the draft and final Environmental Impact Report (EIR) for the Antelope Valley Solar Project by Renewable Resources Group, as well as additional facts found in the complete record of proceedings. The final EIR is hereby incorporated by reference and is available for review at the Kern County Planning and Community Development Department (Planning Department), 2700 M Street, Suite 100, Bakersfield, California 93301, during normal business hours.

**SECTION II. FINDINGS REGARDING THE POTENTIAL ENVIRONMENTAL EFFECTS  
OF THE PROJECT**

The Kern County Planning Department issued a notice of preparation of a draft EIR on March 8, 2010. Based on the initial study and notice of preparation, a determination was made that the final EIR would contain a comprehensive analysis of environmental issues identified in Appendix G of the California Environmental Quality Act (CEQA) Guidelines and not screened out during the notice of preparation. With respect to all impacts identified as “less than significant” or as having “no impact” in the final EIR, the Los Angeles County (“County”) Regional Planning Commission (“Planning Commission”) finds that those impacts have been described accurately and are less than significant or have no impact. Despite concluding that certain impacts would be less than significant or would have no impact, the final EIR nonetheless incorporates mitigation measures in the form of complying with the goals, policies, and implementation measures of the County General Plan, Conditional Use Permit (CUP) requirements, or other adopted regulations. The Planning Commission finds that these effects are less than significant or

have no impact before and after implementation of these mitigation measures.

In addition, some impacts in the final EIR were found to be “significant” but were able to be mitigated to less-than-significant levels, and others were found to be “significant and unavoidable.” The Planning Commission finds that those impacts have been described accurately and are less than significant with the implementation of mitigation or are significant and unavoidable.

## **AESTHETICS**

### ***A. Environmental Effects of the Project Found to Have No Impact on the Environment, or Have a Less Than Significant Impact on the Environment.***

The project would not have a substantial adverse effect on a scenic vista. (Impact 4.1-1)

### ***B. Environmental Effects of the Project that Are Potentially Significant, but that Can Be Mitigated to Less Than Significant Levels.***

#### **Significant Effect**

The project would create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. (Impact 4.1-3)

#### **Description of Significant Impact**

The proposed project would create a new source of lighting within the project site to provide for nighttime security, and glare could potentially occur from reflection off the solar panels. Increased truck traffic and the transport of the equipment and construction materials to the project site would temporarily increase glare conditions during construction. However, this increase in glare would be minimal and temporary. Therefore, construction of the proposed project would not create a new source of substantial glare that would affect daytime views in the area. The proposed project would include security lighting. Security lighting would likely be installed around the perimeter of the site, near the operations and maintenance building, and near the on-site substation. If improperly designed or oriented, such lighting may result in light trespass that falls outside the boundaries of the project site. Under particularly adverse conditions, spillover lighting causes annoyance, discomfort, or loss in visual performance because of its intensity, direction, or source type and visibility.

#### **Finding**

The project would create a new source of substantial light or glare that could adversely affect day or nighttime views in the area. These impacts would be reduced to a less-than-significant level with the implementation of the mitigation measures described below.

**MM 4.1-4LA:** Project facility lighting shall be designed to provide the minimum illumination needed to achieve safety and security objectives. All lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent areas. Lenses and bulbs shall not extend below the shields.

**MM 4.1-5LA:** Solar panels and hardware shall be designed to minimize glare and spectral highlighting. To the extent feasible, emerging technologies shall be utilized that introduce diffusion coatings and

nanotechnological innovations that will effectively reduce the refractive index of the solar cells and protective glass. These technological advancements are intended to make the solar panels more efficient at converting incident sunlight into electrical power, but have the tertiary effect of reducing the amount of light that escapes into the atmosphere in the form of reflected light, which would be the potential source of glare and spectral highlighting.

#### Brief Explanation of the Rationale for the Finding

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts. Implementation of Mitigation Measures MM 4.1-4 through 4.1-5 would reduce impacts to less-than-significant levels.

#### ***C. Environmental Effects of the Project that Cannot Be Mitigated to a Level Less Than Significant.***

#### **Significant Effect**

The project would substantially degrade the existing visual character or quality of the site and its surroundings. (Impact 4.1-2)

#### **Description of Specific Impact**

Implementation of the proposed project would ultimately result in the placement of 1,243 acres of photovoltaic solar panels and associated infrastructure on the project site. The utility-scale solar facility would alter the existing agricultural open-space character of the project site by introducing a unique energy-generation element into the landscape. Specifically, there would be potentially significant impacts associated with “cultural modifications,” or manmade features which strongly impact the area’s visual resources, “vegetation” and “color” due to the replacement of an orchard and agricultural fields with solar panels, and “adjacent scenery” because views of hills in the distance would be partially blocked by fencing associated with the project. The area’s visual character is significantly altered.

#### **Finding**

The features which create significant aesthetic impacts (solar panels) are an inherent and necessary part of the project. While mitigation measures have been included to reduce aesthetic impacts as identified below, impacts are considered significant and unavoidable.

**MM 4.1-1LA:** The applicant shall clear debris from the project area at least twice per year; this can be done in conjunction with regular panel washing and site maintenance activities. The applicant shall erect signs with contact information for the applicant’s maintenance staff at regular intervals along the site boundary, as required by the County Department of Regional Planning (“Regional Planning”). Maintenance staff shall respond within two weeks to resident requests for additional cleanup of debris.

**MM 4.1-2LA:** During construction, any areas used for storage of equipment, vehicles, or construction materials and located within 200 feet of an occupied residence shall be screened from the residence using metal fence slats or similar view-screening materials. Such areas shall be maintained clear of debris. Maintenance staff shall respond within two weeks to resident requests for additional cleanup of construction waste or debris.

#### **Brief Explanation of the Rationale for the Finding**

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts. Implementation of Mitigation Measures 4.1-1LA through 4.1-2LA would serve to reduce the overall visual impact of the proposed project by ensuring regular clearance of debris and other visual clutter, and by providing a visual shield of the site to nearby KOPs. While these measures would reduce the overall aesthetic impact, they would not entirely preserve the existing open space landscape character, and impacts to visual resources would be significant and unavoidable.

***D. Cumulative Environmental Effects of the Proposed Project that Would Have a Less Than Significant Impact on the Environment.***

The project would not have any cumulative effects on aesthetics that would have a less than significant impact.

***E. Cumulative Environmental Effects of the Proposed Project that Would Have a Significant Impact on the Environment.***

**Significant Effect**

The project would result in a cumulative aesthetic impact.

**Description of Significant Impact**

Multiple projects, including several utility-scale solar energy production facilities, are proposed in the project vicinity. These projects would cover at least 9,000 acres within five miles of the project site. These have the potential to result in cumulative impacts to aesthetics when considered together with the proposed project. As the discussion provided above indicates, the project would have significant and unavoidable impacts related to aesthetics after implementation of mitigation. Other projects in the region would also be required to implement various mitigation measures to reduce impacts. However, the conversion of thousands of acres in a presently rural area to solar energy production uses cannot be mitigated to a degree that impacts are no longer significant.

**Finding**

The project's cumulative aesthetic impact is considered cumulatively considerable. Implementation of Mitigation Measures 4.1-1LA through 4.1-6LA would reduce cumulative impacts.

**Brief Explanation of the Rationale for the Finding**

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce the impacts caused by the project that results in a cumulative aesthetic impact. Even with implementation of Mitigation Measures 4.1-1LA through 4.1-6LA, implementation of the proposed project would result in a cumulatively considerable significant aesthetics impact related to visual character of the site and its surroundings.

**AGRICULTURE AND FOREST RESOURCES**

***A. Environmental Effects of the Project Found to Have No Impact on the Environment, or Have a Less Than Significant Impact on the Environment.***

The project would not involve other changes in the existing environment that, because of their location

or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use. (Impact 4.2-3)

***B. Environmental Effects of the Project that Are Potentially Significant, but that Can Be Mitigated to Less Than Significant Levels.***

The project would not result in any potentially significant impacts that could be mitigated to less-than-significant levels.

***C. Environmental Effects of the Project that Cannot Be Mitigated to a Level Less Than Significant.***

**Significant Effect**

The project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation, to nonagricultural use. (Impact 4.2-1)

**Description of Specific Impact**

Implementation of the proposed project would result in the conversion to non-agricultural use of 1,013 acres of Important Farmland, including lands designated by the California Department of Conservation as Prime Farmland (1,013 acres). The conversion of Important Farmland to non-agricultural use results in direct conversion impacts, or the conversion of land within the project site boundary, as well as the potential for indirect impacts, which is the pressure to convert other properties adjacent to the project site from agricultural to non-agricultural use.

**Finding**

The removal of agricultural uses is necessary for the implementation of the project. While a mitigation measure has been included to reduce impacts to agriculture resources as identified below, impacts are considered significant and unavoidable.

**MM 4.2-1LA:** Prior to issuance of a grading or building permit, whichever occurs first, the applicant shall provide written evidence of completion of one or more of the following measures to mitigate the loss of Important Farmland at a ratio of 1:1 for net acreage before conversion. Net acreage is to be calculated by excluding existing roads. Due to the fact that the California Department of Fish and Game has indicated that agricultural land is the best foraging habitat for Swainson's hawk, acreages required for Swainson's hawk mitigation and for agricultural land mitigation are the same. A revised Exhibit "A" to the Conditional Use Permit shall be submitted substantiating the net acreage calculation along with written evidence of compliance.

**Farmland Options**

- a) Funding and purchase of agricultural conservation easements (will be managed and maintained by an appropriate entity);
- b) Purchase of credits from an established agricultural farmland mitigation bank;
- c) Contribution of agricultural land or equivalent funding to an organization that provides for the

preservation of farmland in California; or

- d) Participation in any agricultural land mitigation program adopted by Los Angeles County that provides equal or more effective mitigation than the measures listed above.

Mitigation land would meet the definition of Prime Farmland or Farmland of Statewide Importance established by the State Department of Conservation on any qualifying land in the State of California. For the purposes of Swainson's hawk mitigation, completion of the selected measure(s) must be on qualifying land within the Antelope Valley (Kern or Los Angeles Counties) and must be within the foraging habitat of the Swainson's hawk as defined by the California Department of Fish and Game. The following options can be completed in any combination.

**Swainson's hawk Options:**

- 1) Fund and purchase agricultural conservation easements (will be managed and maintained by an appropriate entity) on land that meets the definition of Prime Farmland or Farmland of Statewide Importance established by the State Department of Conservation in the Antelope Valley, and is within the foraging habitat of the Swainson's hawk as defined by the California Department of Fish and Game and within five miles of a known active Swainson's hawk nest. This option can be completed in conjunction with Option A as detailed above;
- 2) Fund and purchase a conservation easement (that will be managed and maintained by the appropriate entity) on native land within the Swainson's hawk foraging habitat in the Antelope Valley at a ratio to be determined through consultation with the California Department of Fish and Game within five miles of a known active Swainson's hawk nest; or
- 3) Should the project proponent exhaust all available land in the Antelope Valley, they must submit proof to Regional Planning. Once the proof has been accepted by Regional Planning the project proponent must fund and purchase agricultural conservation easements (will be managed and maintained by an appropriate entity) on land that meets the definition of Prime Farmland or Farmland of Statewide Importance established by the State Department of Conservation anywhere in the State of California. Qualifying land must be within the foraging habitat of the Swainson's hawk as defined by the California Department of Fish and Game and within ten miles of a known active Swainson's hawk nest.

**Brief Explanation of the Rationale for the Finding**

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts. Implementation of Mitigation Measure 4.2-1LA would serve to reduce the overall impact of the loss of agricultural land by protecting other agricultural lands in the region on an acre-for-acre basis. While this measure would reduce impacts to agriculture, it would not create new farmland to replace that which is removed by the project, and impacts to agriculture resources would be significant and unavoidable.

**Significant Effect**

The project would conflict with existing zoning for agricultural use or a Williamson Act contract. (Impact 4.2-2)

**Description of Specific Impact**

Implementation of the proposed project would result in the cancellation of Williamson Act contracts on

approximately 1,033 acres on the Kern County portion of the project site.

#### Finding

The removal of agricultural uses is necessary for the implementation of the project. Impacts would be reduced through implementation of Mitigation Measure 4.2-1KC, as described above; however, following implementation, impacts related to the cancellation of Williamson Act contracts would continue to be considered significant and unavoidable.

#### Brief Explanation of the Rationale for the Finding

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts. Implementation of Mitigation Measure 4.2-1KC would serve to reduce impacts to agricultural resources by preserving farmland outside of the project site, which aids in the achievement of the same goals as those of the Williamson Act. While this measure would reduce the overall impact to agricultural resources, it would not entirely replace the lands presently protected by Williamson Act contracts, and the impact would be significant and unavoidable.

#### Significant Effect

The project would result in the cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Contract for any parcel of 100 or more acres (PRC Section 15206(b)(3)). (Impact 4.2-4)

#### Description of Specific Impact

Implementation of the proposed project would result in the cancellation of Williamson Act contracts on approximately 1,033 acres on the Kern County portion of the project site. Six parcels over 100 acres in size (all located within Kern County) are protected by such contracts.

#### Finding

The removal of agricultural uses is necessary for the implementation of the project. Impacts would be reduced through implementation of Mitigation Measure 4.2-1KC, as described above; however, following implementation, impacts related to the loss of open space contracts on parcels of 100 or more acres would continue to be considered significant and unavoidable.

#### Brief Explanation of the Rationale for the Finding

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts. Implementation of Mitigation Measure 4.2-1KC would serve to reduce impacts to agricultural resources by preserving farmland outside of the project site, which aids in the achievement of the same goals as those of the Williamson Act. While this measure would reduce the overall impact to agricultural resources, it would not entirely replace the lands presently protected by Williamson Act contracts, and the impact would be significant and unavoidable.

#### ***D. Cumulative Environmental Effects of the Proposed Project that Would Have a Less Than Significant Impact on the Environment.***

The project would not have any cumulative effects on aesthetics that would have a less than significant impact.

***E. Cumulative Environmental Effects of the Proposed Project that Would Have a Significant Impact on the Environment.***

**Significant Effect**

The project would result in a cumulative impact to agriculture resources.

**Description of Significant Impact**

A total of 26 projects, covering approximately 3,900 acres, are currently proposed within a six-mile radius of the project site. These projects consist primarily of renewable energy projects (solar and wind) and housing developments. If approved, these projects have the potential to convert agricultural lands to nonagricultural uses. The conversion of 2,502 acres of active farmland (including areas designated as Prime Farmland and Farmland of Statewide Importance) to non-agricultural use, combined with other area development projects that would impact active farmland, as well as the cancellation of Williamson Act contracts on nearly 1,033 acres in Kern County, would result in a cumulatively significant and unavoidable impact.

**Finding**

The project's impact on agriculture resources is considered cumulatively considerable. Implementation of Mitigation Measure 4.2-1LA would reduce cumulative impacts.

**Brief Explanation of the Rationale for the Finding**

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce the impacts caused by the project that result in a cumulative impact to agriculture resources. Even with implementation of Mitigation Measure 4.2-1LA, implementation of the proposed project would result in a cumulatively considerable impact related to agriculture resources due to the loss of Farmland and lands covered by Williamson Act contracts.

**AIR QUALITY**

***A. Environmental Effects of the Project Found to Have No Impact on the Environment, or Have a Less Than Significant Impact on the Environment.***

The project would not conflict with or obstruct implementation of an applicable air quality plan. (Impact 4.3-1) *The following mitigation measures are implemented to further reduce project-related emissions:*

**MM 4.3-1LA:** Construction and operation of the proposed project shall be conducted in compliance with applicable rules and regulations set forth by the Antelope Valley Air Quality Mangement District. Dust control measures outlined below shall be implemented where they are applicable and feasible. The list shall not be considered all-inclusive and any other measures to reduce fugitive dust emissions not listed shall be encouraged.

- a) Land Preparation, Excavation and/or Demolition. The following dust control measures shall be implemented:
  - i. All soil excavated or graded shall be sufficiently watered to prevent excessive dust. Watering shall occur as needed with complete coverage of disturbed soil areas. Watering

shall take place a minimum of twice daily on unpaved/untreated roads and on disturbed soil areas with active operations.

- ii. All clearing, grading, earth moving, and excavation activities shall cease during periods of winds greater than 20 miles per hour (averaged over one hour), if disturbed material is easily windblown; or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures or neighboring property.
  - iii. All fine material transported off-site shall be either sufficiently watered or securely covered to prevent excessive dust.
  - iv. Areas disturbed by clearing, earth moving, or excavation activities shall be minimized at all times.
  - v. Stockpiles of soil or other fine loose material shall be stabilized by watering or other appropriate method to prevent wind-blown fugitive dust.
  - vi. Where acceptable to the fire department, weed control shall be accomplished by mowing instead of discing, thereby, leaving the ground undisturbed and with a mulch covering.
- b) Site Construction. After clearing, grading, earth moving and/or excavating, the following dust control practices shall be implemented:
- i. Once initial leveling has ceased, all inactive soil areas within the construction site shall either be seeded and watered until plant growth is evident, treated with a dust palliative, or watered twice daily until soil has sufficiently crusted to prevent fugitive dust emissions.
  - ii. All active disturbed soil areas shall be sufficiently watered at least twice daily to prevent excessive dust.
  - iii. Vehicles accessing the site will be provided with oral instructions or maps depicting access routes to minimize travel on unimproved roadways in the vicinity of the site.
- c) Vehicular Activities. During all phases of construction, the following vehicular control measures shall be implemented:
- i. On-site vehicle speed shall be limited to 15 miles per hour.
  - ii. All areas with vehicle traffic shall be paved, treated with dust palliatives, or watered a minimum of twice daily.
  - iii. Streets adjacent to the project site shall be kept clean and project related accumulated silt shall be removed.
  - iv. Access to the site shall be by means of an apron into the project site from adjoining surfaced roadways. The apron shall be surfaced or treated with dust palliatives. If operating on soils that cling to the wheels of vehicles, a grizzly or other such device shall be used on the road exiting the project site, immediately prior to the pavement, in order to remove most of the soil material from vehicle tires.

- v. The project proponent and/or its contractor(s) shall adopt travel routes and plans, as deemed appropriate, to minimize the inefficient use of vehicles and other equipment.
- vi. Diesel engine idle time shall be restricted to no more than 5 minutes as requires by the CARB engine idling regulation. Exceptions in the regulation include vehicles that need to idle as part of their operation, such as concrete mixer trucks.

**MM 4.3-2LA:** The project proponent and/or its contractor(s) shall implement the following measures during construction of the proposed project:

- All equipment shall be maintained as recommended by manufacturer’s manuals.
- Equipment shall be shut down when not in use for extended periods of time.
- Construction equipment shall operate no longer than eight (8) cumulative hours per day.
- Electric equipment shall be used whenever possible in lieu of diesel or gasoline powered equipment.
- All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NO<sub>x</sub> emissions.
- On-road and off-road diesel equipment shall use diesel particulate filters if permitted under manufacturer’s guidelines.

The project would violate an air quality standard or contribute substantially to an existing or projected air quality standard. (Impact 4.3-2)

The project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region in nonattainment under an applicable federal or state ambient air quality standard. (Impact 4.3-3)

The project would expose sensitive receptors to substantial pollutant concentrations. (Impact 4.3-4)

***B. Environmental Effects of the Project that Are Potentially Significant, but that Can Be Mitigated to Less Than Significant Levels.***

The project would not have any environmental effects on air quality that can be mitigated to a less-than-significant level.

***C. Effects of the Project that Cannot Be Mitigated to a Level Less Than Significant***

The project would not have any environmental effects on air quality that cannot be mitigated to a less-than-significant level.

***D. Cumulative Environmental Effects of the Proposed Project that Would Have a Less Than Significant Impact on the Environment.***

There are no cumulative impacts on air quality that would be reduced to a less-than-significant level with the incorporation of the proposed mitigation measures.

***E. Cumulative Environmental Effects of the Proposed Project that Would Have a Significant Impact on the Environment.***

**Significant Effect**

Cumulative impacts to air quality during the construction period would be significant and unavoidable.

**Description of Significant Impact**

Significant cumulative impacts from the proposed project, when considered with nearby, reasonably foreseeable planned projects, would only have the potential to occur during project construction. The majority of project emissions would occur temporarily during the construction phase, which is expected to begin in 2013 and conclude in 2015. After that, there would be minimal emissions and insignificant cumulative impacts during operation of the proposed project.

**Finding**

Due to the uncertainty of the timing of other projects that may be constructed within the Mojave Desert Air Basin, it is assumed that temporary cumulative impacts from construction would remain significant and unavoidable. Implementation of Mitigation Measures 4.3-1LA and 4.3-2LA would reduce cumulative air quality impacts.

**Brief Explanation of the Rationale for the Finding**

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts. Even after the implementation of Mitigation Measures MM 4.3-1LA and MM 4.3-2LA, impacts related to cumulative air quality construction impacts would remain significant and unavoidable.

**BIOLOGICAL RESOURCES**

***A. Environmental Effects of the Project Found to Have No Impact on the Environment, or Have a Less Than Significant Impact on the Environment.***

The project would not have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game (CDFG) or the United States Fish and Wildlife Service (USFWS). (Impact 4.4-2)

The project would not have a substantial adverse impact on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, and coastal wetlands), either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means. (Impact 4.4-3)

The project would not interfere substantially with the movement of any migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (Impact 4.4-4) *The following mitigation measure is implemented to further reduce potential impacts to migratory bird species:*

**MM 4.4-10LA:** The following measures shall be implemented prior to issuance of a grading or building permit:

The applicant shall submit written documentation to Regional Planning showing that all power lines are constructed to 2006 Avian Power Line Interaction Committee Guidelines. The applicant shall conform to the latest practices (as outlined in the 2006 Avian Power Line Interaction Committee document) to protect birds from electrocution and collision. Implementation of these guidelines shall be verified by Kern County. The applicant shall install power collection and transmission facilities using Avian Power Line Interaction Committee standards for collision-reducing techniques as outlined in *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006* (Avian Power Line Interaction Committee, 2006).

The project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. (Impact 4.4-5)

***B. Environmental Effects of the Project that Are Potentially Significant, but that Can Be Mitigated to Less Than Significant Levels.***

**Significant Effect**

The project would 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 CDFG or USFWS. (Impact 4.4-1)

**Description of Significant Impact**

Several wildlife species, including desert tortoise, coast horned lizard, silvery legless lizard, American badger, desert kit fox, Swainson's hawk, burrowing owl, and several other species protected under the California Fish and Game Code and/or the Migratory Bird Treaty Act, have the potential to occur in the study area. Construction activities would have the potential to result in significant impacts to these species.

**Finding**

The project would have a substantial adverse impact, either directly or through habitat modifications, on species identified as a Candidate, Sensitive, or Special-Status species in local or regional plans, policies, or regulations, or by CDFG or USFWS. These impacts would be reduced to a less-than-significant level with the implementation of the mitigation measures described below.

**MM 4.4-1LA.** The applicant shall provide environmental training to all personnel working on the site during project construction and operation in the form of a 'tailgate session.' The training shall include a review of special-status species known to occur in the project site to promote their awareness, and implementation measures if a species is encountered or killed. The sign-in sheet from this session shall be turned in to Regional Planning. If a species is encountered or killed, the appropriate employee will be required to contact the on-call biological services provider and Regional Planning.

**MM 4.4-2LA.** If an injured or dead special-status species is encountered during construction, the applicant shall stop work within the immediate vicinity. The applicant shall notify Regional Planning, the on-call biologist, and the appropriate resources agency (e.g., U.S. Fish and Wildlife Service or California Department of Fish and Game) and comply with any actions required before construction is allowed to proceed.

**MM 4.4-3LA:** The following measures shall be implemented prior to issuance of a grading or building permit. Appropriate notes shall be included on any grading permit, building permit, or final map.

- Within 15 days of site clearing, a qualified biologist shall conduct a preconstruction migratory bird and raptor nesting survey. Surveys need not be conducted for the entire project site at one time; they may be phased so that surveys occur shortly before a portion of the site is disturbed. The surveying biologist must be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance. This survey shall include species protected under the Migratory Bird Treaty Act including Swainson's hawk, LeConte's thrasher, and mountain plover. The survey shall cover all reasonably potential nesting locations for the relevant species on or closely adjacent to the project site.
- If an active nest is confirmed by the biologist, no construction activities shall occur within at least one half mile of the nesting site until the end of the breeding season when the nest is confirmed to be no longer in use and the young have fledged. If it is not feasible to have a one half mile setback from the nest, the California Department of Fish and Game will be contacted to determine the appropriate measures. California Department of Fish and Game will be notified of the identification of active nests and will be consulted regarding resumption of construction activities.

**MM 4.4-4LA:** To mitigate for the potential impacts to burrowing owls, the following measures shall be implemented as part of the approval for a grading or building permit. Appropriate notes shall be included on any grading permit, building permit or final map.

To avoid impacts on western burrowing owl, the following guidelines, adapted from the California Department of Fish and Game (CDFG) *Staff Report on Burrowing Owl Mitigation* (CDFG, 1995), shall be implemented:

- a) A qualified wildlife biologist (i.e., a wildlife biologist with previous burrowing owl survey experience) shall conduct a preconstruction survey to locate any breeding or wintering burrowing owls no more than 30 days prior to the start of construction.
- b) If no burrowing owls are detected, no further mitigation is necessary. If burrowing owls are detected, no ground-disturbing activities, such as road construction or installation of turbines or ancillary facilities, shall be permitted within 250 feet of an active burrow during the breeding season (February 1–August 31), unless otherwise authorized by the CDFG. Occupied burrows should not be disturbed during the nesting season unless a qualified biologist approved by the CDFG, verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival.
- c) During the nonbreeding (winter) season (September 1–January 31), ground-disturbing work can proceed near active burrows as long as the work occurs no closer than 160 feet from the burrow and the site is not directly affected by the project activity. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be displaced from winter burrows. A qualified wildlife biologist shall install one-way doors at the entrance to the active burrow and other potentially active burrows within 150 feet of the active burrow. Forty-eight hours after the installation of the one-way doors, the doors can be removed, and ground-disturbing activities can proceed.
- d) Should burrowing owls be found on-site, and if it is determined that the proposed project

would reduce suitable habitat on-site below CDFG threshold levels, the habitat shall be replaced off-site if no suitable on-site habitat is available. Off-site habitat must consist of suitable burrowing owl habitat, as defined in the Burrowing Owl Survey Protocol, and the location shall be approved by the CDFG. The appropriate replacement ratio will be determined through consultation with the CDFG.

**MM 4.4-5LA:** The following measures shall be implemented prior to issuance of a grading or building permit. Appropriate notes shall be included on any grading permit, building permit, or final map:

A qualified biologist shall conduct focused preconstruction surveys no more than two weeks prior to commencement of construction activities for potential American badger or desert kit fox dens. Copies of the completed surveys shall be turned in to Regional Planning. The survey shall be conducted in areas of suitable habitat for American badger and desert kit fox, which includes fallow agricultural land and scrub habitats (a total of 360 acres on the project site). Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within two weeks prior to that portion of the site being disturbed. If no potential American badger or desert kit fox dens are present, no further mitigation is required. If potential dens are observed, the following measures are required to avoid potential adverse effects to the American badger:

- If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers or foxes from re-using them during construction.
- If the qualified biologist determines that potential dens may be active, the biologist shall notify the California Department of Fish and Game (CDFG). Entrances to the dens shall be blocked with soil, sticks, and debris for three to five days to discourage use of these dens prior to project disturbance. The den entrances shall be blocked to an incrementally greater degree over the three-to five-day period. After the qualified biologist determines that badgers and foxes have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction.
- Construction activities shall not occur within 30 feet of active badger dens.

**MM 4.4-6LA:** No earlier than 30 days prior to the commencement of construction activities, a preconstruction survey shall be conducted by a qualified biologist to determine if active maternity roosts of bats are present. Copies of the completed survey shall be turned in to Regional Planning. The survey shall be conducted in areas considered suitable habitat for bats, which consists of abandoned structures, windbreaks, orchards, and scrub (a total of approximately 196 acres) that occurs within the project disturbance zone or within 300 feet of the project disturbance zone boundary. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 30 days prior to a portion of the site is disturbed. If an active maternity roost is identified in these areas, the maternity roost will not be directly disturbed, and some construction activities within 300 feet of the maternity roost may be postponed or halted until the maternity roost is vacated and juveniles have fledged, as determined by the biologist. The breeding season for native bat species in California is approximately March 1 through August 31.

**MM 4.4-7LA:** Preconstruction surveys and avoidance measures shall be implemented for coast horned lizard and silvery legless lizard.

For construction activities occurring in or directly adjacent to occupied or suitable habitat for coast horned lizard and silvery legless lizard, preconstruction surveys shall be conducted by a qualified

biologist to determine if these special-status species are present. Copies of the completed surveys shall be turned in to Regional Planning. Surveys need not be conducted for all suitable habitat areas at one time; they may be phased so that surveys occur shortly before a portion of the site is disturbed. If visual searches or raking (in the case of silvery legless lizard) are used for preconstruction surveys, the biologist shall conduct surveys no earlier than 72 hours prior to disturbance, and if pitfall trapping is used, the biologist shall conduct trapping no earlier than 5 days prior to disturbance. If these species are located in the disturbance zone, then individuals shall be avoided, if possible. If avoidance is not possible, the project proponent shall consult with the California Department of Fish and Game.

**MM 4.4-8LA:** To mitigate for potential impacts to desert tortoise, the following measures shall be implemented as part of the approval for a grading or building permit. Appropriate notes shall be included on any grading permit, building permit or final map. In the event a desert tortoise is encountered during construction, the project proponent will not move or otherwise disturb the desert tortoise, will cease work within 100 feet of the tortoise, and will immediately contact the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) for further consultation. In order to minimize potential direct or indirect impacts (loss of habitat), mitigation measures are required.

- Prior to construction, the applicant may contact the USFWS and CDFG to determine if preconstruction surveys and tortoise-proof fencing are warranted for the project site given the most up to date information on tortoise range. If the USFWS and CDFG determine that surveys and/or fencing are not required, the applicant may proceed with construction without further measures. Copies of the correspondence shall be submitted to Regional Planning. If the USFWS and CDFG are not consulted, the applicant will implement the measures described below.
- If the USFWS and/or CDFG determine that surveys are warranted based on the coordination described above, pre-construction tortoise clearance surveys shall be conducted at 15 foot intervals to locate and remove desert tortoises prior to grading or ground disturbance. The survey shall be conducted by an Authorized Biologist within 24 hours of the onset of the surface disturbance unless a tortoise-proof fence has been installed that would prevent reentry of the animals. An "Authorized Biologist" is defined as a wildlife biologist who has been authorized to handle desert tortoises by USFWS and CDFG for this project. Name(s) of proposed Authorized Biologist(s) must be submitted to USFWS and CDFG for approval at least 15 days prior to anticipated need.

All burrows that could provide shelter for a desert tortoise should be excavated during the first clearance survey. If a tortoise is encountered while conducting a clearance survey or during burrow excavation the tortoise will not be handled but will be monitored from a distance to ensure its safety. No ground disturbance will be conducted within 100 feet of the tortoise until the tortoise has moved on its own out of the area, or until the project proponent has received approval from the USFWS and CDFG to move the tortoise off-site.

- Temporary tortoise-proof fencing shall be erected and maintained during construction between the interface of the project construction areas and any remaining desert tortoise habitat prior to initiating construction and clearance surveys for desert tortoises on site. The fence is intended to prevent tortoises from wandering onto the project site prior to and during construction. Tortoise fencing shall be a maximum ½" mesh size extending a minimum of 18" above the ground and buried at least 12" below the surface to ensure that tortoise do not burrow underneath the fence. Ongoing maintenance of the fencing shall occur with oversight by an authorized biologist. Fence inspections shall be conducted by an authorized biologist on a bi-weekly basis throughout construction in order to maintain compliance with mitigation measures.

- All construction personnel should undergo desert tortoise awareness training. An authorized biologist shall facilitate a “tailgate” meeting prior to the onset of vegetation clearance surveys and construction activities. Copies of the sign in sheet and any distributed materials shall be turned in to Regional Planning.
- A raven management plan shall be developed for the project site in consultation with the USFWS and CDFG. This plan shall include at a minimum:
  - Identification of all raven nests within the project area during construction.
  - Weekly inspection under all nests in the project area for evidence of desert tortoise predation (scutes, shells, etc.), and, if evidence of predation is noted, submit a report to CDFG, USFWS, and Regional Planning within five calendar days; and
  - Provisions for the management of trash that could attract common ravens during the construction and operation phases of the project.

Should the USFWS determine it is necessary for the proposed project to participate in the regional comprehensive raven management plan, to address biological resources, the project proponent shall be subject to compensation through the payment of fees not to exceed \$150 per disturbed acre.

- Dogs shall be restrained either by enclosure in a kennel or by chaining to a point within the tortoise-proof enclosure if one has been constructed for the activity.
- All construction personnel shall watch for desert tortoises within the construction area whenever driving, transporting, or operating equipment. Driving speeds shall not exceed 20 miles per hour on approved non-public access roads.
- If no desert tortoises are found during preconstruction surveys, the project proponent will provide a report to USFWS and CDFG within one week of starting construction. Following construction, the project proponent will submit a report within 90 days, documenting applicable desert tortoise measures taken during the project, such as tortoise training, fence monitoring and maintenance, etc. If desert tortoises are found during surveys or construction, the applicant will notify the USFWS and CDFG immediately as specified above.

#### Brief Explanation of the Rationale for the Finding

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts that would have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a Candidate, Sensitive, or Special-Status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS. In consideration of the potential use of the project site by special-status wildlife species, impacts on special-status wildlife species would be significant. Implementation of Mitigation Measures 4.4-1LA through 4.4-8LA would reduce impacts to these species to less-than-significant levels.

#### ***C. Effects of the Project that Cannot Be Mitigated to a Level Less Than Significant.***

The project would not have any environmental effects on biological resources that cannot be mitigated to a less-than-significant level.

#### ***D. Cumulative Environmental Effects of the Proposed Project that Would Have a Less Than***

### ***Significant Impact on the Environment.***

The project would not result in cumulative environmental effects that would have a less than significant impact on the environment.

### ***E. Cumulative Environmental Effects of the Proposed Project that Would Have a Significant Impact on the Environment.***

#### **Significant Effect**

Cumulative impacts to biological resources would be significant and unavoidable.

#### **Description of Significant Impact**

As urbanization pressures increase within Kern and Los Angeles Counties, impacts to biological resources within the region are increasing on a cumulative level. When considered with other past, present, and probable future projects as listed in Table 3-5 of this EIR, which total over 16,000 acres, the proposed project would result in a cumulatively significant loss of biological resources, including the loss and/or fragmentation of a substantial fraction of the existing wildlife habitat in the region even with the implementation of mitigation. This is most notably the case for the cumulative loss of foraging habitat for the Swainson's hawk. As described and listed in Table 3-5 the EIR, several other large solar projects may be developed in the region surrounding the Antelope Valley Solar Project in the future, including the Rosamond Solar Array (1,177 acres), Willow Springs Solar Array (1,402 acres), and Alpine Solar (800 acres), and others. Cumulatively, under a full development scenario across the Antelope Valley, the loss of foraging habitat for Swainson's hawk may total more than 16,000 acres, or approximately 8 percent of the foraging habitat within 10 miles of the known nests.

#### **Finding**

Through the implementation of Mitigation Measures 4.4-1LA through 4.4-10LA, the potential cumulative effects to biological resources (including impacts to Swainson's hawk due to loss of foraging habitat) associated with this project and other past, present, and reasonably foreseeable future projects would be reduced. However, even with implementation of these measures, impacts would remain significant and unavoidable.

#### **Brief Explanation of the Rationale for the Finding**

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts that would lead to habitat loss. Implementation of Mitigation Measures MM 4.4-1LA and MM 4.4-10LA would serve to reduce potential cumulative effects related biological impacts. However, the proposed project's contribution to biological impacts in the County, including loss of Swainson's hawk foraging areas, is cumulatively considerable and significant.

### **CULTURAL RESOURCES**

#### ***A. Environmental Effects of the Project Found to Have No Impact on the Environment, or Have a Less Than Significant Impact on the Environment.***

None of the project's environmental effects have been found to result in no impacts or only less-than-significant impacts.

***B. Environmental Effects of the Project that Are Potentially Significant, but that Can Be Mitigated to Less Than Significant Levels.***

**Significant Effect**

The project would cause a substantial adverse change in the significance of an historical resource. (Impact 4.5-1)

**Description of Significant Impact**

Cultural resources pedestrian surveys on the site identified two historical refuse scatters, identified as Sites AVSP-H-105 and AVSP-H-106. These sites consist of surface scatters with no evidence of embedded material or indication that materials are buried subsurface. The sites are not associated with any person or event significant in our history, and their potential to yield information appears to have been exhausted by the recordation conducted as part of the cultural resources study. As such, these sites are not eligible for the California Register of Historical Resources. There is a potential for the proposed project to impact additional, unidentified, significant historic-era deposits.

**Finding**

The project's potential to damage or destroy a previously unknown significant historical resource is considered significant; however, potential adverse effects caused by the project could be mitigated to a less-than-significant level.

**MM 4.5-1LA:** The applicant shall retain a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology, to carry out all mitigation measures related to archaeological and historical resources.

**MM 4.5-2LA:** If cultural resources are encountered, all activity within 60 feet of the find shall cease until it can be evaluated by a qualified archaeologist. Cultural resource materials may include, but are not limited to, historic resources such as household debris, ceramics, industrially related materials and fire-blown glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the resources may be significant, he or she will notify the County and will develop an appropriate treatment plan for the resources. Additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation, or data recovery excavation. The County shall consult with appropriate Native American representatives in determining appropriate treatment for unearthened cultural resources if the resources are prehistoric or Native American in nature.

**Brief Explanation of the Rationale for the Finding**

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts that would damage or destroy a previously unknown significant historical resource. The project impacts are considered significant but would be reduced to a level that is less than significant with implementation of Mitigation Measures 4.5-1LA and 4.5-2LA.

**Significant Effect**

The project would cause a substantial adverse change in the significance of an archaeological resource. (Impact 4.5-2)

## Description of Significant Impact

Cultural resources pedestrian surveys on the site identified three prehistoric archaeological sites, identified as Site AVSP-P-001, CA-KER-8173H, and CA-KER-8176H. These sites may have subsurface deposits that have the potential to yield information important to our understanding of prehistory and therefore may be eligible for inclusion in the California Register of Historical Resources. These prehistoric sites have the potential to be directly impacted by the project. Because the sites have the potential to contain information important to history, the project may cause a substantial adverse change in archaeological resources pursuant to §15064.5 of the State CEQA Guidelines. Additionally, there is a possibility that prehistoric archaeological sites that once existed on the surface may now be buried and could be encountered during project-related excavation.

## Finding

The project's potential to damage or destroy archaeological site AVSP-P-001 or other, previously unknown significant archaeological resources is considered significant; however, potential adverse effects caused by the project could be mitigated to a less-than-significant level.

**MM 4.5-3LA:** Archaeological sites AVSP-P-001, CA-KER-8173H, and CA-KER-8176H, should be avoided. If avoidance of these sites is not feasible, prior to issuing any grading or excavation permits and prior to any project-related ground disturbing activities, a detailed Archaeological Research Design and Treatment Plan (ARDTP) shall be prepared and implemented by a qualified archaeologist. The ARDTP would outline a data recovery plan that targets the recovery of important scientific data contained in the portion/s of the archaeological resource(s) to be impacted by the project. After the treatment plan is carried out, a report shall be prepared that summarizes the results of the data recovery effort and, based on its findings, re-assesses the need for the implementation of archaeological monitoring. The report shall be submitted to the appropriate County agency and to the Southern San Joaquin Valley Information Center.

**MM 4.5-4LA:** If the Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist determines that an archaeological monitor is required, prior to issuance of a grading permit, an archaeological monitor shall be retained by the applicant to monitor all ground-disturbing activities. Ground-disturbing activities to be monitored include, but are not limited to, brush clearance and grubbing, grading, trenching, excavation, and the construction of fencing and access roads. Pile driving is not considered to be a ground-disturbing activity. The duration and timing of monitoring shall be determined by the qualified archaeologist in consultation with the County and based on the grading plans.

The archaeological monitor shall work under the supervision of the qualified archaeologist. In the event that cultural resources are unearthed during ground-disturbing activities, the archaeological monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the find so that the find can be evaluated.

Archaeological materials recovered during the investigation and archaeological monitoring shall be curated at an accredited curatorial facility. A curation agreement shall be executed prior to the issuance of a grading permit.

**MM 4.5-5LA:** Prior to construction, the qualified archaeological monitor or qualified designee shall conduct a brief educational workshop such that all construction personnel understand monitoring requirements, roles and responsibilities of the monitors, and penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources. The construction worker training shall include an overview of potential cultural and paleontological resources that could be encountered during ground

disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to a designated on-site cultural monitor for further evaluation and action, as appropriate.

**MM 4.5-6KC:** A Native American monitor shall be notified prior to construction and allowed the opportunity to be present during all ground disturbing activities, including vegetation clearing, grubbing, grading, filling, drilling, and trenching. In the event that any sacred site or resource is identified, a Native American monitor shall be retained to divert construction activities to another area of the project site while a proper plan for avoidance or removal is determined to the satisfaction of Regional Planning.

#### Brief Explanation of the Rationale for the Finding

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts that would damage or destroy significant archaeological resources. The project impacts are considered significant but would be reduced to a level that is less than significant with implementation of Mitigation Measures 4.5-3LA through 4.5-6LA.

#### Significant Effect

The project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Impact 4.5-3)

#### Description of Significant Impact

The analysis of paleontological records states that grading or shallow excavations in the uppermost few feet of the younger Quaternary fan and fluvial deposits in the project area would probably not uncover significant fossil vertebrate remains. However, deeper excavations in the proposed project area that extend down into older Quaternary deposits are more likely to encounter significant vertebrate fossils.

#### Finding

The project's potential to damage or destroy paleontological resources is considered significant; however, potential adverse effects caused by the project could be mitigated to a less-than-significant level.

**MM 4.5-7LA:** Prior to the issuance of grading permits, a qualified paleontologist shall be retained and approved by the lead agency to monitor all ground-disturbing activity that occurs deeper than five feet below ground surface. Pile driving is not considered to be a ground-disturbing activity. The duration and timing of monitoring shall be determined by the qualified paleontologist in consultation with the appropriate agency and based on the grading plans. Initially, all ground-disturbing activities deeper than five feet shall be monitored. However, during the course of monitoring, if the paleontologist can demonstrate that the level of monitoring should be reduced, the paleontologist, in consultation with the appropriate agency, may adjust the level of monitoring to circumstances as warranted.

If a potentially significant fossil is found, the paleontologist shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation and, if necessary, salvage. Any fossils encountered and recovered shall be catalogued and donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository.

Following the completion of the above tasks, the paleontologist shall prepare a report documenting the absence or discovery of fossil resources on-site. If fossils are found, the report shall summarize the results of the inspection program, identify those fossils encountered, recovery and curation efforts, and the

methods used in these efforts, as well as describe the fossils collected and their significance. A copy of the report shall be provided to Regional Planning and to the Natural History Museum of Los Angeles County

#### Brief Explanation of the Rationale for the Finding

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts that would damage or destroy a paleontological resource. The project impacts are considered significant but would be reduced to a level that is less than significant with implementation Mitigation Measure 4.5-7LA.

#### Significant Effect

The project would disturb human remains, including those interred outside of formal cemeteries. (Impact 4.5-4)

#### Description of Significant Impact

There is no indication, either from the archival research results or the archaeological survey, that any particular location in the project area has been used for human burial purposes in the recent or distant past. However, in the event that human remains are inadvertently discovered during project construction activities, the human remains could be inadvertently damaged, which could be a significant impact.

#### Finding

The project's potential to uncover buried archaeological deposits including human remains is considered significant; however, potential adverse effects caused by the project could be mitigated to a less-than-significant level.

**MM 4.5-8LA:** If human skeletal remains are uncovered during project construction, the project proponent (depending upon the project component) shall immediately halt work, contact the Los Angeles County Coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.4 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are American Indian, the project proponent shall contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the American Indian human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendents regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

#### Brief Explanation of the Rationale for the Finding

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts related to buried archaeological resources including human remains. The project impacts are considered significant but would be reduced to a level that is less than significant with implementation of Mitigation Measure 4.5-8KC.

#### ***C. Effects of the Project that Cannot Be Mitigated to a Level Less Than Significant.***

The project would not have any environmental effects on cultural resources that cannot be mitigated to a

less-than-significant level.

***D. Cumulative Environmental Effects of the Proposed Project that Would Have a Less Than Significant Impact on the Environment.***

**Significant Effect**

The project would result in cumulatively significant impacts to cultural resources.

**Description of Significant Impact**

The project area contains a significant archaeological and historical record that, in many cases, has not been well-documented or recorded. Thus, there is the potential for ongoing and future development projects in the vicinity to disturb landscapes that may contain known or unknown cultural resources.

The potential construction impacts of the proposed project, in combination with other projects in the area, could contribute to a cumulatively significant impact on cultural resources. Future projects with potentially significant impacts to cultural resources would be required to comply with federal, State, and local regulations and ordinances protecting cultural resources through implementation of similar mitigation measures during construction. Nonetheless, excavation activities associated with the proposed project in conjunction with other projects in the area could contribute to the progressive loss of fossil remains, as-yet unrecorded fossil sites, associated geological and geographic data, and fossil bearing strata.

**Finding**

The proposed project has the potential to result in cumulatively considerable impacts related to cultural resources, specifically in regards to the progressive loss of historical, archaeological, and paleontological resources resulting from excavation activities associated with projects in the cumulative impacts scenario. The implementation of Mitigation Measures 4.5-1LA through 4.5-8LA would reduce impacts to a less-than-significant level.

**Brief Explanation of the Rationale for the Finding**

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce cumulative impacts caused by the project. With the implementation of Mitigation Measures 4.5-1KC and 4.5-8KC, these cumulative land use impacts would be considered less than significant.

***E. Cumulative Environmental Effects of the Proposed Project that Would Have a Significant Impact on the Environment.***

The project would not have any cumulative effects on cultural resources that would have a significant impact.

**GREENHOUSE GAS EMISSIONS**

***A. Environmental Effects of the Project Found to Have No Impact on the Environment, or Have a Less Than Significant Impact on the Environment.***

The project would not generate greenhouse gas emissions, either directly or indirectly, that may

have a significant impact on the environment. (Impact 4.6-1)

***B. Environmental Effects of the Project that Are Potentially Significant, but that Can Be Mitigated to Less Than Significant Levels.***

The project would not have any environmental effects related to greenhouse gas emissions that are potentially significant but can be mitigated to less-than-significant levels.

***C. Effects of the Project that Cannot Be Mitigated to a Level Less Than Significant.***

The project would not have any environmental effects related to greenhouse gas emissions that cannot be mitigated to a less-than-significant level.

***D. Cumulative Environmental Effects of the Proposed Project that Would Have a Less Than Significant Impact on the Environment.***

Cumulative impacts related to greenhouse gas emissions would result in a less-than-significant impact on the environment.

***E. Cumulative Environmental Effects of the Proposed Project that Would Have a Significant Impact on the Environment.***

There would be no cumulative impacts on greenhouse gas emissions that would have a significant impact on the environment.

## **HYDROLOGY AND WATER QUALITY**

***A. Environmental Effects of the Project Found to Have No Impact on the Environment, or Have a Less Than Significant Impact on the Environment.***

The project 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. (Impact 4.7-1)

The project would not substantially alter the existing drainage patterns of the project site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion on-site or off-site. (Impact 4.7-2)

The project would not substantially alter the existing drainage patterns of the project site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of runoff in a manner that would result in substantial flooding on-site or off-site. (Impact 4.7-3)

The proposed project would not place within a 100-year flood hazard area structures that would impede or redirect flood flows. (Impact 4.7-4)

***B. Environmental Effects of the Project that Are Potentially Significant, but that Can Be Mitigated to Less Than Significant Levels.***

## **Significant Effect**

The project would place within a 100-year flood hazard area structures that would impede or redirect flood flows (Impact 4.7-4)

### **Description of Significant Impact**

A large portion of the project footprint is situated within the 100-year floodplain. However, because the solar panels would be elevated several feet above ground level, less than one percent of the project site would be covered by structures which would impede or redirect flood flows. Nevertheless, these structures and grading associated with construction, could alter the existing flood flows on site.

### **Finding**

The project has the potential to alter existing flood flows on the site and redirect these flood flows onto other parcels. This impact can be mitigated to a less than significant level with the approval of stormwater and drainage plans for the site, or restriction to no solar panels within these areas.

**MM. 4.7-1LA:** Compliance with the goals, policies, and implementation measures of the County General Plan is required. No additional mitigation measures are proposed.

### **Brief Explanation of the Rationale for the Finding**

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce impacts that could alter or impede flood flows. The project impacts are considered less than significant and would be further reduced with implementation of Mitigation Measures 4.7-1LA.

#### ***C. Effects of the Project that Cannot Be Mitigated to a Level Less Than Significant.***

The project would not have any environmental effects on hydrology and water quality that cannot be mitigated to a less-than-significant level.

#### ***D. Cumulative Environmental Effects of the Proposed Project that Would Have a Less Than Significant Impact on the Environment.***

There are no cumulative impacts on hydrology and water quality that would be reduced to a less-than-significant level with the incorporation of mitigation measures.

#### ***E. Cumulative Environmental Effects of the Proposed Project that Would Have a Significant Impact on the Environment.***

The project would not have any cumulative effects on hydrology and water quality that would have a significant impact.

## **LAND USE AND PLANNING**

#### ***A. Environmental Effects of the Project Found to Have No Impact on the Environment, or Have a Less Than Significant Impact on the Environment.***

The project would not conflict with any applicable land use plan, policy, or regulation of an agency with

jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (Impact 4.8-1)

***B. Environmental Effects of the Project that Are Potentially Significant, but that Can Be Mitigated to Less Than Significant Levels.***

The project would not have any environmental effects on land use that are potentially significant and that cannot be mitigated to less-than-significant levels.

***C. Effects of the Project that Cannot Be Mitigated to a Level Less Than Significant.***

The project would not have any environmental effects on land use and planning that cannot be mitigated to a less-than-significant level.

***D. Cumulative Environmental Effects of the Proposed Project that Would Have a Less Than Significant Impact on the Environment.***

**Significant Effect**

The project would result in cumulative land use and planning impacts.

**Description of Significant Impact**

Should solar power generation facilities cease to be commercially viable enterprises, there is the potential for multiple facilities covering thousands of acres to be abandoned within the County. The cumulative effects of such abandonment could result in impacts on surrounding land uses. In addition, the military has identified potential conflicts between users of the radio frequency spectrum located both on and off military installations with implementation of the proposed project along with other cumulative renewable energy projects. Operations of unmanned radio-controlled aircraft flights can result in electronic interference from other sources of radio signals.

**Finding**

The proposed project has the potential to result in cumulatively considerable impacts related to land use consistency, specifically in regards to abandonment and compatibility with military uses. The following mitigation measures are proposed and would reduce impacts to a less-than-significant level.

**MM 4.8-1LA:** Prior to issuance of any building permit the applicant shall provide the County with a Decommissioning Plan for review and approval by the County, or a County-contracted consulting firm(s) at a cost to be borne by the project proponent. The Decommissioning Plan shall factor in the cost to remove the solar panels and support structures, replacement of any disturbed soil from removal of support structures, and control of fugitive dust on the remaining vacant land. Preservation of the vegetation planted on the site as part of the operational landscape re-vegetation and restoration plan is sufficient to fulfill the fugitive dust control requirement and shall be outlined in the Decommissioning Plan. Salvage value for the solar panels and support structures shall be included in the financial assurance calculations. The assumption, when preparing the estimate, is that the project proponent is incapable of performing the work or has abandoned the solar facility, thereby resulting in the County hiring an independent contractor to perform the decommissioning work. In addition to submittal of a Decommissioning Plan, the project proponent shall post or establish and maintain with the County financial assurances related to the deconstruction of the site as identified on the approved Decommission Plan should at any point in time

the project proponent determine it is not in their best interest to operate the facility.

The financial assurance required prior to issuance of any building permit shall be established using one of the following:

- (a) An irrevocable letter of credit,
- (b) A surety bond,
- (c) A trust fund in accordance with the approved financial assurances to guarantee the deconstruction work will be completed in accordance with the approved decommission plan; or
- (d) other financial assurances as reviewed and approved by the respective County administrative offices, in consultation with the Kern County Planning and Community Development Department or Regional Planning, as applicable.

The financial institution or Surety Company shall give the County at least 120 days notice of intent to terminate the letter of credit or bond. Financial assurances shall be reviewed annually by the respective counties or County-contracted consulting firm(s) at a cost to be borne by the project proponent to substantiate that adequate funds exist to ensure deconstruction of all solar panels and support structures identified on the approved Decommission Plan. Should the project proponent deconstruct the site on their own, the Counties will not pursue forfeiture of the financial assurance. Once deconstruction has occurred, financial assurance for that portion of the site will no longer be required and any financial assurance posted will be adjusted or returned accordingly. Any funds not utilized through decommission of the site by the County shall be returned to the project proponent.

Should any portion of the solar field not be in operational condition for a consecutive period of twenty-four (24) months that portion of the site shall be deemed abandoned and shall be removed within sixty (60) days from the date a written notice is sent to the property owner and solar field owner, as well as the project operator, by the Counties. Within this sixty (60) day period, the property owner, solar field owner, or project operator may provide the respective planning departments a written request and justification for an extension for an additional twelve (12) months. The Director of Regional Planning shall consider the request in accordance with applicable County Code requirements. In no case shall a solar field which has been deemed abandoned be permitted to remain in place for more than forty-eight (48) months from the date the solar facility was first deemed abandoned.

**MM 4.8-2LA:** Prior to the operation of the solar facility, the applicant shall consult with the Department of Defense to identify the appropriate Frequency Management Office officials to coordinate the use of telemetry to avoid potential frequency conflicts with military operations.

**MM 4.8-3LA:** Prior to issuance of a grading permit, the applicant shall obtain authorization to modify the tree planting requirements of the County Green Building Ordinance from the County Director of Public Works and shall comply with all considerations and other terms of the Green Building Ordinance requirements to the satisfaction of the Director of Public Works (see Sections 22.52.2130.C.5 and Section 22.52.2150 of the Los Angeles County Code).

**MM 4.8-4LA:** Prior to commencement of operations, the project proponent must submit a landscape revegetation and restoration plan for the project site. Ground cover must be native low-lying vegetations and must be installed under the solar panels on the entire site. Plants to be used must be determined through consultation with local experts and must be approved by Regional Planning Director prior to planting. The plan must include a timeline for planting of vegetation, percentage of site to be covered,

plants to be installed and detail the consultation efforts completed, and the methods and schedule for proposed maintenance, installation of wildlife-friendly fencing, prohibition on the use of rodenticides, and installation of desert kit fox dens, including escape and pupping dens. Ground cover must be continuously maintained on the project site by the project proponent in accordance with the County Zoning Ordinance. All areas identified for re-vegetation and restoration improvements shall be evaluated for compliance with the re-vegetation and restoration plan annually for a period of 3 years, beginning from the commercial operation date of the entire project, and with an annual evaluation report submitted to Regional Planning Director.

#### Brief Explanation of the Rationale for the Finding

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce cumulative impacts caused by the project. With the implementation of Mitigation Measures 4.8-1LA and 4.8-2LA included below, these cumulative land use impacts would be considered less than significant.

#### ***E. Cumulative Environmental Effects of the Proposed Project that Would Have a Significant Impact on the Environment.***

The project would not have any cumulative effects on land use and planning that would have a significant impact.

#### **PUBLIC SERVICES**

#### ***A. Environmental Effects of the Project Found to Have No Impact on the Environment, or Have a Less Than Significant Impact on the Environment.***

The project would not have any environmental effects related to public services that result in no impacts or only less-than-significant impacts.

#### ***B. Environmental Effects of the Project that Are Potentially Significant, but that Can Be Mitigated to Less Than Significant Levels.***

#### **Significant Effect**

The proposed project would result in adverse physical impacts associated with the provision of new or physically altered governmental facilities, and/or result in 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, which include: fire protection and police protection. (Impact 4.9-1)

#### **Description of Significant Impact**

The project would result in substantial adverse physical impacts associated with the provision of or need for new or altered governmental facilities, the construction of which would result in significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for the following public services: fire protection and police/sheriff protection. Mitigation Measures 4.9-1LA and 4.9-2LA would reduce potential adverse effects caused by the project to a less-than-significant level.

#### **MM 4.9-1LA:**

- a. The applicant shall work with County staff in Kern and Los Angeles Counties to determine how the receipt of sales and use taxes related to the construction of the project will be maximized. The sales and use taxes shall be divided between the two Counties proportionate to the amount of the project to be constructed in their respective jurisdictions. This process shall include, but is not necessarily limited to: applicant obtaining a street address within the unincorporated portion of the respective County for acquisition, purchasing, and billing purposes; applicant registering this address with the State Board of Equalization; applicant using this address for acquisition, purchasing, and billing purposes associated with the proposed project; and applicant allowing the respective County to use this sales tax information publicly for reporting purposes.

**MM 4.9-2LA:** The applicant will develop and implement a fire safety plan for use during construction and operation. The applicant will submit the plan, along with maps of the project site and access roads, to the County Fire Department for review and approval prior to the issuance of any building permit or grading permits. The fire safety plan will contain notification procedures and emergency fire precautions including, but not limited to, the following:

- a. All internal combustion engines, stationary and mobile, will be equipped with spark arresters. Spark arresters will be in good working order.
- b. Light trucks and cars with factory-installed (type) mufflers will be used only on roads where the roadway is cleared of vegetation. These vehicle types will maintain their factory-installed (type) muffler in good condition.
- c. Fire rules will be posted on the project bulletin board at the contractor's field office and areas visible to employees.
- d. Equipment parking areas and small stationary engine sites will be cleared of all extraneous flammable materials.
- e. Personnel will be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel will be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats.
- f. The applicant will make an effort to restrict use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes will be easily accessible to personnel.

#### Brief Explanation of the Rationale for the Finding

CEQA requires that all feasible and reasonable mitigation be applied to the project that result in substantial adverse physical impacts associated with the provision of or need for new or altered governmental facilities, the construction of which would result in significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for any of the following public services: fire protection, police/sheriff protection, schools, parks or other facilities. Project impacts to fire protection and police/sheriff protection are considered significant, but would be reduced to a level that is less than significant with implementation of Mitigation Measures 4.9-1LA and 4.9-2LA.

#### ***C. Effects of the Project that Cannot Be Mitigated to a Level Less Than Significant.***

The project would not have any environmental effects on public services that cannot be mitigated to a less-than-significant level.

***D. Cumulative Environmental Effects of the Proposed Project that Would Have a Less Than Significant Impact on the Environment.***

The project would not result in a cumulative effect on public services that would have a significant impact.

***E. Cumulative Environmental Effects of the Proposed Project that Would Have a Significant Impact on the Environment.***

The project would not have any cumulative effects on public services that would have a significant impact.

## **TRANSPORTATION AND TRAFFIC**

***A. Environmental Effects of the Project Found to Have No Impact on the Environment, or Have a Less Than Significant Impact on the Environment.***

The project would not exceed, either individually or cumulatively, a Level Of Service (“LOS”) standard established by the county Congestion Management Agency or adopted county threshold for designated roads or highways. (Impact 4.10-1)

***B. Environmental Effects of the Project that Are Potentially Significant, but that Can Be Mitigated to Less Than Significant Levels.***

### **Significant Effect**

The project would exceed, either individually or cumulatively, an LOS standard established by the county congestion management agency or adopted county threshold for designated roads or highways. (Impact 4.10-1)

### **Description of Significant Impact**

The project would result in increased traffic in the project area, especially during construction. Mitigation Measures 4.10-1LA through 4.10-2LA would reduce potential adverse effects caused by the project to a less-than-significant level.

**MM 4.10-1LA:** Prior to any construction activities and/or issuance of required encroachment permits from Caltrans and County, the project proponent shall prepare worksite traffic control plans for review and approval from Caltrans and the County Department of Public Works. The plans shall include: 1) the location and usage of appropriate construction work warning signs that shall be placed in accordance with Caltrans Manual on Uniform Traffic Control Devices; 2) proper merging taper and/or shifting lane schematics; and 3) adequate work area and buffer zone designation as well as proper location and conduct of flagmen and the traffic management supervisor at the installation worksite area. The project worksite traffic control plans shall be coordinated with driver and worker safety in mind. Where the observed speed limit on affected roadways is 55 MPH or more, the plans shall incorporate and implement the following minimum standard requirements per the Work Area Traffic Control Handbook (WATCH):

- A Type C flasing arrow pane shall be used for each closed lane.
- The minimum height for traffic cones shall be 28 inches.
- A minimum of three advance warning signs shall be posted.
- Consideration of advanced safety enhancement measures shall be taken into account for workers in the work zones.

The above safety and traffic control measures identified in the traffic control plans shall also be implemented at pole installation sites within the public road right-of-way and/or roadway crossings at a minimum.

Additionally, the County, including the County Fire Department (LACFD) Fire Stations 78 and 112 shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. Applicant shall provide alternate route (detour) plans to Los Angeles County, including three sets to the LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.

**MM 4.10-2LA:** Prior to issuance of grading permit, the project proponent shall document and submit all required information and/or material pertaining to the pavement conditions of 170<sup>th</sup> Street West including the formula for calculating the project's fair share of any repair and/or reconstruction of 170<sup>th</sup> Street West to the satisfaction of County Department of Public Works (LACDPW). The project proponent shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of 170<sup>th</sup> Street West attributable to the project as agreed to by the LACDPW. The timing of any necessary repairs and/or reconstruction of 170<sup>th</sup> Street West and the required payment by the project proponent shall be determined by LACDPW.

Brief Explanation of the Rationale for the Finding

CEQA requires that all feasible and reasonable mitigation be applied to the project that result in substantial adverse physical impacts associated with traffic and circulation. These impacts are considered significant, but would be reduced to a level that is less than significant with implementation of Mitigation Measures 4.10-1LA through 4.10-2LA.

***C. Effects of the Project that Cannot Be Mitigated to a Level Less Than Significant.***

The project would not have any environmental effects on transportation and traffic that cannot be mitigated to a less-than-significant level.

***D. Cumulative Environmental Effects of the Proposed Project that Would Have a Less Than Significant Impact on the Environment.***

There are no cumulative impacts on transportation and traffic that would be reduced to a less-than-significant level with the incorporation of the proposed mitigation measures.

***E. Cumulative Environmental Effects of the Proposed Project that Would Have a Significant Impact on the Environment.***

There are no cumulative impacts on transportation and traffic that would have a significant impact on the

environment.

### **SECTION III. FINDINGS REGARDING CONSIDERATIONS, WHICH MAKE CERTAIN ALTERNATIVES, ANALYZED IN THE FINAL ENVIRONMENTAL IMPACT REPORT INFEASIBLE.**

The following findings and brief explanation of the rationale for the findings regarding project alternatives identified in the EIR are set forth to comply with the requirements of Section 15091(s)(3) of the *CEQA Guidelines*.

The consideration of alternatives is an integral component of the CEQA process. The selection and evaluation of a reasonable range of alternatives provides the public and decision-makers with information on ways to avoid or lessen environmental impacts created by a proposed project. When selecting alternatives for evaluation, CEQA requires alternatives that meet most of the basic objectives of the project, while avoiding or substantially lessening the project's significant effects. Thus, objectives for the proposed project were considered by this board in evaluating the alternatives. These objectives are to:

- Assist in achieving the State's Renewables Portfolio Standard and greenhouse gas emissions reduction objectives to the maximum extent possible based on anticipated transmission facility capacity and reserved queue position.
- Locate solar power plant facilities as near as possible to electrical transmission facilities with anticipated capacity and reserved queue position.
- Site the project in an area with excellent solar energy resource, in order to maximize productivity from the photovoltaic panels.
- To the extent feasible, site the project on disturbed land.
- Use a proven and available solar photovoltaic technology.
- Ensure that the project can be constructed, and power provided at a competitive price.
- Co-locate solar power plant facilities with underground water bank facilities in order to maximize use of water bank land and minimize the cost of providing solar renewable energy.

Four alternatives to the project have been defined and analyzed. Section 15126.6 of the *CEQA Guidelines* provides that alternatives do not need to be evaluated to the same level of detail as the proposed project.

#### **ALTERNATIVE A: NO PROJECT**

Under the Alternative A: No Project, the existing land uses on the 1,243-acre project site, which include agriculture, and vacant desert land, would continue. In addition, existing ancillary structures, such as the roadways providing access to the project area, would remain in their current capacity. The undeveloped setting of the project site would continue for an indefinite period and no physical changes within the project site would occur. The No Project Alternative would maintain the current zoning and land use designations.

#### Finding

The No Project Alternative would avoid some impacts associated with the proposed project's short-term, long-term, and cumulative impacts, but would result in a greater long-term and cumulative impacts in certain environmental issue areas. Unlike the proposed project, this alternative would not have significant

and unavoidable impacts associated with aesthetics (project-level and cumulative), agriculture resources (project-level and cumulative), air quality (cumulative), or biological resources (cumulative). Long-term air quality and greenhouse gas impacts would be substantially greater with the No Project Alternative because solar energy production from the project would not displace more heavily polluting sources of electricity generation. In addition, this alternative would not meet any of the project's objectives. On balance, because the No Project Alternative would not provide the long-term air quality and greenhouse gas benefits of the Project, and because the County finds accomplishment of the project objectives to be desirable from a public policy perspective and the No Project alternative does not accomplish those objectives, the County rejects the No Project Alternative.

## **ALTERNATIVE B: REDUCED PROJECT**

Under Alternative B: Reduced Project Alternative, development would involve a 82-percent reduction in project size, thereby avoiding all Williamson Act contract land and Important Farmlands on the site. The project under this alternative would consist of a 34-megawatt (MW) solar photovoltaic generating facility on 225 acres. This alternative would continue to require a CUP. Under this alternative, the following specific project components could be reduced in number or size in comparison to the proposed project:

- A solar field of photovoltaic panels and associated improvements (e.g., access roads, fencing, secondary access drives, combiners, etc.),
- An electrical collection system (transformer and inverter) that aggregates the output from the photovoltaic panels and converts the electricity from DC to alternating current AC,
- The transmission line to SCE, and
- A project substation.

### Finding

The Reduced Project Alternative would reduce impacts associated with aesthetics, agriculture resources, air quality (project-level), biological resources (project-level), cultural resources, and traffic and transportation, when compared to the proposed project. Despite a reduction in their severity, significant and unavoidable impacts to aesthetics (project-level and cumulative), air quality (cumulative), and biological resources (cumulative) would remain.

The Reduced Project Alternative would have similar impacts associated with hydrology and water quality, land use and planning, and public services, when compared to the proposed project. Once operational, this alternative would result in greater impacts to long-term air quality (project-level) and greenhouse gases than the proposed project because solar energy production would not displace as great of a quantity of more heavily polluting sources of electricity generation, compared with the Project.

Therefore, the Reduced Project Alternative would reduce impacts in most environmental issue areas as compared to the proposed project, but would result in negative long-term impacts to air quality and greenhouse gases.

This alternative partially accomplishes the project objectives. However, it meets certain objectives to a lesser degree than the proposed project. Among these are:

- Assist in achieving the State's Renewables Portfolio Standard and greenhouse gas emissions reduction objectives to the maximum extent possible based on anticipated transmission facility capacity and reserved queue position.

- Ensure that the project can be constructed, and power provided at a competitive price.

On balance, because the Reduced Project Alternative would provide lesser long-term air quality and greenhouse gas benefits than the Project, and because the County finds accomplishment of the project objectives to be desirable from a public policy perspective and the Reduced Project Alternative would not accomplish those objectives as fully as the Project, the County rejects the Reduced Project Alternative.

### **ALTERNATIVE C: BUILD-OUT OF EXISTING LAND USE**

Under Alternative C: Build-Out of Existing Land Use, the project site could be developed to the maximum intensity allowed under the land use designations of the County General Plan and Antelope Valley Areawide General Plan within the Los Angeles County portions of the project site. Implementation of the Build-Out of Existing Land Use Alternative would consist of development under the current land use designations of N1 Non-urban 1 (0.5 du/ac) in Los Angeles County. This alternative would yield approximately 10,800 residential units. Under this alternative, no utility scale solar photovoltaic panels would be developed, as those entitlements do not currently exist on-site.

#### Finding

The Build-Out of Existing Land Use Alternative would not avoid the significant and unavoidable impacts of the proposed project related to aesthetics, agriculture resources, air quality or biological resources. While this alternative would reduce impacts to agricultural lands, the impact remains significant and unavoidable. The Build-Out of Existing Land Use Alternative would result in fewer impacts to land use and planning as compared to the proposed project. However, this alternative increases project impacts related to air quality, biological resources, greenhouse gas emissions, hydrology and water quality, and traffic and transportation. This alternative would not meet any of the project objectives, such as helping meet California's Renewables Portfolio Standard goals.

On balance, because the Build-Out of Existing Land Use Alternative would not provide the long-term air quality and greenhouse gas benefits of the Project, because it would increase impacts to hydrology and water quality and to traffic and transportation compared with the Project, and because the County finds accomplishment of the project objectives to be desirable from a public policy perspective and the Build-Out of Existing Land Use Alternative would not accomplish those objectives, the County rejects the Build-Out of Existing Land Use Alternative.

### **ALTERNATIVE D: NO UTILITY-SCALE SOLAR DEVELOPMENT—DISTRIBUTED COMMERCIAL AND INDUSTRIAL ROOFTOP SOLAR ONLY**

Alternative D: No Utility-Scale Solar Development would involve the development of a number of geographically distributed small to medium solar photovoltaic systems (100 kilowatts to 1 MW) within existing developed areas, typically on the rooftops of commercial and industrial facilities situated throughout the County. Under this alternative, no new land would be developed or altered. However, depending on the type of solar modules installed and the type of tracking equipment used (if any), a similar or greater amount of acreage (i.e., greater than 4,782 acres of total rooftop area) may be required to attain the proposed project's capacity of 650 MW of solar photovoltaic generating capacity. Because of space or capital cost constraints, many rooftop solar photovoltaic systems would be fixed-axis systems or would not include the same type of sun-tracking equipment that would be installed in a freestanding utility-scale solar photovoltaic project and, therefore, would not attain the same level of efficiency with

respect to solar photovoltaic generation. This alternative would enable the generation of 650 MW of electricity, but it would be for on-site use only. This alternative assumes that rooftop development would occur primarily on commercial and industrial structures due to the greater availability of large, relatively flat roof areas necessary for efficient solar installations.

### Finding

The No Utility-Scale Solar Development Alternative would reduce impacts associated with aesthetics, agriculture resources, air quality, biological resources, cultural resources, greenhouse gases, public services, and traffic and transportation when compared to the proposed project. Impacts related to hydrology and water quality and land use and planning would be similar to those of the proposed project.

This alternative would partially achieve the project objectives, such as assisting in achieving the State's Renewables Portfolio Standard and greenhouse gas reduction objectives, siting panels on disturbed areas and using a proven and available solar photovoltaic technology. Alternative D would not meet the following project objectives:

- Locate solar power plant facilities as near as possible to electrical transmission facilities with anticipated capacity and reserved queue position.
- Ensure that the project can be constructed, and power provided at a competitive price.
- Co-locate solar power plant facilities with underground water bank facilities in order to maximize use of water bank land and minimize the cost of providing solar renewable energy.

This alternative includes a number of drawbacks, including, but not limited to the following:

- There would be difficulties with respect to buildout of the system within a timeframe that would be similar to that of the proposed project.
- Given the distributed nature of such a network of facilities, management and maintenance would not be as efficient, and total capital costs would likely be higher.
- The requirement to negotiate with a large number of individual property owners to permit placement of solar panels on rooftops.
- The difficulty of ensuring proper maintenance of a large number of smaller solar installations.
- The lack of an effective electricity distribution system for large numbers of small electricity producers.

Given the size of the proposed project, the project objectives, the need to arrange a suitable assemblage of participating commercial and industrial properties and the challenges stated above, it is impractical and infeasible to propose a distributed generation project of this type and still proceed within a reasonably similar timeframe as the proposed project. Further, to achieve the State's Renewables Portfolio Standard, renewable power generation from multiple sources, including both utility scale solar and distributed solar power generation will be needed. Thus, the No Utility-Scale Solar Development Alternative does not replace, or eliminate the need for, the proposed project. On balance, because the County finds accomplishment of the project objectives to be desirable from a public policy perspective and the No Utility-Scale Solar Development Alternative would not accomplish those objectives as fully as the Project, the County rejects the No Utility-Scale Solar Development Alternative.

### ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The *CEQA Guidelines* require the identification of an environmentally superior alternative to the project (*CEQA Guidelines*, Section 15126.6[e][2]). An environmentally superior alternative is an alternative to the project that would reduce and/or eliminate the significant environmental impacts associated with the project without creating other significant impacts and without substantially reducing and/or eliminating the environmental benefits attributable to the project.

Selection of an environmentally superior alternative is based on an evaluation of the extent to which the alternatives reduce or eliminate the significant impacts associated with the project on a comparison of the remaining environmental impacts of each alternative. In conducting this comparative evaluation, it can be difficult to make a determination of relative significance because some categories are relatively more or less important and cannot be simply summed. In some cases, these categories do not create a picture of the nuances of the alternatives.

### Finding

The Environmentally Superior Alternative to the proposed project would be Alternative D: No Utility-Scale Solar Development—Distributed Commercial and Industrial Rooftop Solar Only. This alternative would avoid all significant and unavoidable impacts that would occur under the proposed project. No substantially adverse and long-term impacts would occur to the environment as a result of this alternative. This alternative would also result in fewer impacts to cultural resources, greenhouse gas emissions, public services, and traffic and transportation and similar impacts to hydrology and water quality and land use and planning as compared to the proposed project.

The no Utility-Scale Solar Development Alternative does not replace, or eliminate the need for, the proposed project. On balance, because the County finds accomplishment of the project objectives to be desirable from a public policy perspective and the No Utility-Scale Solar Development Alternative would not accomplish those objectives fully as the Project, the County rejects the No Utility-Scale Solar Development Alternative.