INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

ANTELOPE VALLEY SOLAR ENERGY PROJECT

UNINCORPORATED LOS ANGELES COUNTY, CALIFORNIA

PROJECT NO.: R2013-03397-(5)
CONDITIONAL USE PERMIT NO.: 201300170
ENVIRONMENTAL ASSESSMENT NO.: 201300290

Prepared for: County of Los Angeles, Department of Regional Planning
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Los Angeles, California 90012

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EXECUTIVE SUMMARY

1.1 INTRODUCTION

Antelope Valley Solar, LLC ("Applicant") proposes to develop a 7.45 MWac solar photovoltaic ("PV") project (the proposed "Project") in two phases on approximately 72 (net) acres of land in north Los Angeles County (the "Site"). The Site consists of vacant agricultural land that was last farmed on or before 1974, and is identified by Los Angeles County ("County") Assessor Parcel Numbers: 3307-016-012 and 3307-016-013. The Site is zoned A-2-1 (Heavy Agricultural Use-One Acre Minimum Required Lot Area). A detailed description of the Project is provided in Section 3.0 below

The California Environmental Quality Act (CEQA) requires public agencies to consider the environmental impacts of a project prior to undertaking any discretionary approvals. This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared to identify and address the environmental impacts associated with the Project, and is the basis for seeking a conditional use permit (CUP) from the County for the Project. This IS/MND indicates that, while the Project would have environmental impacts, modifications and/or mitigation measures have been incorporated into the Project to reduce such impacts to levels considered less than significant (State CEQA Guidelines, Section 15070).

This Executive Summary presents a brief overview of the proposed Project, a tabular summary of the potential environmental effects of the Project, and the recommended mitigation program that would reduce potential impacts to a less than significant level. A complete description and analysis of the Project's potential environmental effects is provided in the subsequent sections of this IS/MND along with the attached technical appendices.

1.2 PROJECT SUMMARY

The Site is located at the southwest corner of Avenue F and 90th Street East, in unincorporated Los Angeles County, approximately six (6) miles northeast of the City of Lancaster.

The Project will be developed in two (2) phases. The first phase ("Phase 1") will generate approximately 4.45 megawatts of alternating current ("MWac"), and will be located on the northerly 35-40 acres of the Site. The second phase ("Phase 2") will generate approximately 3 MWac and will be constructed on the southerly portion of the Site. Applicant currently has a power purchase agreement only for Phase 1 of the Project. Each Phase of the Project will interconnect to Southern California Edison's ("SCE") distribution circuits located near the eastern boundary of the Site.

As used herein, the term Project shall mean the solar PV project as a whole, including both Phase 1 and Phase 2. The studies, surveys, reports, and analyses undertaken with respect to the Project and the Site, including the analysis set forth in this IS/MND, apply to the whole Project and whole Site in its and/or their entirety, and the CUP being sought for the Project applies to the Project and the Site as a whole, including both Phases thereof.

The design features, Mitigation Measures, and all conditions of approval under the CUP (the "Conditions") will be accomplished for Phase 1 of the Project in connection with the development, construction, and operation of Phase 1 of the Project, and separately for Phase 2 of the Project in connection with the development, construction, and operation of Phase 2 of the Project. No Phase of the Project will be responsible for satisfying the design features, Mitigation Measures, or Conditions of any other Phase of the Project. Although studied and analyzed collectively (pursuant to section 15161 of

CEQA), each Phase of the Project is independent of the other, and will succeed as a stand-alone project, even if the other Phase is delayed or prevented for being developed, constructed, or becoming operational, including as a result of technical or financial problems, delays, or other impediments. The CUP issued in respect of the Project will not be terminated or revoked, and the rights under the CUP shall not be diminished, with respect to any particular Phase of the Project as a result of a failure, breach, or default of the CUP, Project design features, Mitigation Measures, or Conditions by any other Phase of the Project.

The major components of the Project are summarized and described as follows:

- A solar field of north-south rows of PV panels, mounted on either fixed-tilt or single-axis tracking systems on steel support structures;

- An electrical collection and inverter-transformer system that aggregates the output from the PV panels, inverts the electricity from direct current (DC) to alternating current (AC), and transforms the output voltage to 12.47 kilovolts ("kV");

- Circuits, meters, relays, circuit breakers, fuses, surge protectors, poles, and other interconnection facilities, equipment, and distribution upgrades required to connect the Project to SCE's distribution circuits, whether at the Site or SCE's Redman Substation located on Avenue E and 90th Street East;

- A meteorological data collection system(s) configured to collect meteorological information for the Project; and

- Civil infrastructure, including driveways, internal access roads, secure fencing, landscaping, retention basins, and water tank(s) for fire protection.

Phase 1 of Project is planned for construction in early to mid-2015, with the facility in operation by the fourth quarter of 2015 at the latest. Construction of Phase 2 of the Project will commence once a power purchase agreement for Phase 2 has been secured. Once commenced, construction is expected to be completed within three to six months, and the facility may operate for up to 35 years. At the end of the economically useful life, the Project will be decommissioned and the Site restored in accordance with County requirements and an approved Decommissioning Plan (described below).

1.3 SUMMARY OF ENVIRONMENTAL IMPACTS

Implementation of the Project would result in potentially significant impacts to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Hazards and Hazardous Materials, and Utilities/Service Systems prior to implementation of mitigation measures. Mitigation measures ("MMs") are detailed in each environmental analysis presented in Section 4.0, Environmental Checklist Form, of this IS/MND. With incorporation of the MMs into the Project, all potentially significant environmental impacts would be reduced to less than significant levels. A copy of the Mitigation Monitoring and Reporting Program ("MMRP") is included in Appendix A attached hereto.

INTRODUCTION

2.1 PURPOSE

This IS/MND is prepared for the Project in accordance with CEQA, California Public Resources Code, Sections 21000 *et seq*., and associated CEQA Guidelines, California Code of Regulations, Title 14, Sections 15000 *et seq.* This IS/MND includes a description of the Project and surrounding land uses, evaluation of the potential environmental impacts of the Project, and recommended mitigation measures to reduce such impacts to a less than significant level. In addition to addressing the potential environmental impacts, this IS/MND serves as the primary environmental document for future activities associated with the Project, including all discretionary approvals requested or required for Project implementation.

The County is the lead agency for the Project and has the principal responsibility for approving the Project. The County has reviewed and revised, as necessary, all submitted drafts and technical studies and has commissioned the preparation of this IS/MND to reflect its own independent judgment, including (a) reliance on applicable County technical personnel and (b) review of all technical reports. Data for this IS/MND was obtained from onsite field observations, discussions with affected agencies, review of available technical studies, reports, guidelines, and data, and specialized environmental assessments prepared for the Project. The County has the authority for Project approval and adoption of this IS/MND.

2.2 SUMMARY OF FINDINGS

Section 4.0 (Environmental Checklist Form)of this IS/MND discusses the potential environmental impacts of the Project and the recommended mitigation program, including mitigation measures that would reduce all potential impacts to levels considered less than significant. According to Section 15370 of the CEQA Guidelines, "mitigation" includes the following: (a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (e) compensating for the impact by replacing or providing substitute resources or environments.

Implementation of the Project would result in potentially significant impacts to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Hazards and Hazardous Materials, and Utilities/Service Systems prior to implementation of mitigation measures. Implementation of the MMs, as detailed in each environmental analysis presented in Section 4.0 of this IS/MND, would reduce all potentially significant impacts to a less than significant level. According to the CEQA Guidelines, it is appropriate to prepare an MND for the proposed Project because, with incorporation of MMs, potentially significant environmental impacts would be eliminated or reduced to a less than significant level.

2.3 APPROVALS

The IS/MND has been submitted to potentially affected responsible and trustee agencies and is available for public review online at http://planning.lacounty.gov/case. Hardcopies will be available for review during business hours at the Lancaster Public Library, 601 West Lancaster Boulevard, Lancaster, California, 93534 and at the Los Angeles County Department of Regional Planning, 320 W. Temple Street, 13th Floor (Room 1348), Los Angeles, California 90012. This IS/MND has also been submitted to the State Clearinghouse for review by potentially affected State agencies.

This IS/MND will be available for a 30-day public review period in accordance with Section 15073 of the State CEQA Guidelines, beginning November 5, 2014 through December 19, 2014. In reviewing this IS/MND, reviewers should focus on the sufficiency of the document in identifying and analyzing the potential impacts on the environment and ways in which such potentially significant impacts are avoided or mitigated. Comments on the analysis contained herein may be sent to Mr. Anthony Curzi via email at acurzi@planning.lacounty.gov, or mailed to the following County address:

Mr. Anthony Curzi
County of Los Angeles
Department of Regional Planning
320 West Temple Street, (Room 1348)
Los Angeles, California 90012

In accordance with Section 15074 of the CEQA Guidelines, prior to approving the Project, the County Regional Planning Commission would consider the proposed MND together with any comments received during the public review process. The Regional Planning Commission would adopt the proposed MND only if it finds that there is no substantial evidence that the Project would have a significant effect on the environment.

2.4 OUTLINE OF IS/MND

The IS/MND is organized into the following chapters:

- Chapter 1, Executive Summary, provides a summary of the Project and this IS/MND.

- Chapter 2, Introduction, provides an introduction to the IS/MND process.

- Chapter 3, Environmental Setting and Project Description, provides a description of the Project location and Project itself, along with environmental setting of the Project area near the Site.

- Chapter 4, Environmental Checklist Form, provides a CEQA checklist of potential impacts of the Project, including: (a) mandatory findings of significance, in accordance with CEQA requirements, (b) analyses of identified environmental impacts, and (c) mitigation measures that would mitigate potential significant effects to a less than significant level.

- Chapter 5, References, provides a list of references used in preparation of the IS/MND.

ENVIRONMENTAL SETTING AND PROJECT DESCRIPTION

3.1 SITE LOCATION

The Project is located at the southwest corner of Avenue F and 90th Street East, in the community of Redman, a remote area of unincorporated Los Angeles County, approximately six miles northeast of the City of Lancaster. The Site is approximately 50 miles north of downtown Los Angeles.

Regional access to the Site is provided via the Antelope Valley Freeway (State Route 14), exiting at either Avenues D, F, or G, then proceeding east along either Avenues E or G to 90th Street East, and then north or south to Avenue F. The location of the Site is depicted on Exhibit 3-1, *Regional Location* and Exhibit 3-2, *Local Vicinity*.

3.2 SITE CHARACTERISTICS

The Site consists of two contiguous parcels identified by County Assessor Parcel Numbers: 3307-016-012 and 3307-016-013. The Site is bounded on the east by 90th Street East, on the north by Avenue F, on the south by Avenue F-8, and on the west by 87th Street East. 90th Street East and Avenue F are paved County roads, Avenue F is an unpaved (dirt) County road, and 87th Street East is an unpaved and unimproved dirt trail not suitable for vehicle traffic. The Site is approximately 81 acres in gross area, and approximately 72 acres in net area once offers of dedication for roadways and slope easements are made to the County on all four boundaries of the Site.

The Site is disturbed, vacant land, and contains no habitable buildings, structures, or development of any kind. There is an abandoned earthen basin near the southeast corner of the Site, along with an abandoned well and other abandoned irrigation equipment near the south portion of the Site. To Applicant's knowledge, this earthen basin and irrigation well and equipment have not been used since at least 1974, prior to which time the Site was used for agricultural purposes.

SCE has constructed, owns, and operates a number of overhead distribution and sub-transmission power lines near and along the borders of the Site. Specifically, on the east side of 90th Street East, near the eastern border of the Site, SCE has constructed an overhead, 66kV sub-transmission circuit together with two (2), overhead 12kV distribution circuits. Additionally, SCE has constructed overhead, branch distribution circuits on the north sides of both Avenue F and Avenue F-8. Finally, the west side of 90th Street East is improved with overhead cable and telephone circuits. Approximately one mile north of the Site is SCE's Redman substation, which contains multiple 66kV / 12kV transformers, along with meters, switches, futures, telecommunication, and other substation equipment.

Onsite vegetation consists mostly of sparse, low-growing, desert scrub. There are no trees (including Joshua trees) of any kind on the Site. There are no streambeds or other aquatic resources identified on the Site. The topography of the Site is flat with no major distinguishing features. There is an approximately 10-foot change in elevation (0.34 percent slope) from the southeast to the northwest corner of the Site.

3.3 SURROUNDING LAND USES

The Site is located in a sparsely-developed, rural area of north Los Angeles County. With the exception of the Site, and a few parcels located immediately west of the Site, all of the land north, south, and west of the Site between Avenues D and G and 70th and 90th Streets East (approximately six square

miles) is owned by the Los Angeles County Sanitation District (LACSD). LACSD uses this land as an offsite storage location for its treated sewage water via crop circle alfalfa farming. The land immediately west of the Site is vacant with the exception of two residences near the northwest and southwest corners of the Site. Other than a small parking lot for industrial vehicles immediately east of the southeast corner of the Site, the land east of the Site (beyond 90th Street East) is vacant or used for alfalfa farming. There are no other residences or commercial operations within approximately one mile of the Site. There are no industrial or manufacturing land uses in the Project vicinity, with the exception of SCE's Redman Substation, which is located approximately one mile north of the Site at Avenue E and 90th Street East. Recent photos of the Site are provided on Exhibit 3-3, *Site Photos*.

3.4 PROJECT DESCRIPTION

The Project consists of a solar energy facility that could produce up to 7.45 MWac of renewable electric power during daytime hours. The Project will be developed in two (2) phases. Phase 1 will generate approximately 4.45 MWac, and will be located on the northerly 35-40 acres of the Site, and Phase 2 will generate approximately 3 MWac and will be constructed on the southerly portion of the Site. Applicant currently has a power purchase agreement only for Phase 1 of the Project. Each Phase of the Project will interconnect to SCE's distribution circuits located near the eastern boundary of the Site. The studies, surveys, reports, and analyses undertaken with respect to the Project and the Site, including the analysis set forth in this IS/MND, apply to the whole Project and whole Site in its and/or their entirety, and the CUP being sought for the Project applies to the Project and the Site as a whole, including both Phases thereof.

The design features, Mitigation Measures, and all Conditions will be accomplished for Phase 1 of the Project in connection with the development, construction, and operation of Phase 1 of the Project, and separately for Phase 2 of the Project in connection with the development, construction, and operation of Phase 2 of the Project. No Phase of the Project will be responsible for satisfying the design features, Mitigation Measures, or Conditions of any other Phase of the Project. Although studied and analyzed collectively (pursuant to section 15161 of CEQA), each Phase of the Project is independent of the other, and will succeed as a stand-alone project, even if the other Phase is delayed or prevented for being developed, constructed, or becoming operational, including as a result of technical or financial problems, delays, or other impediments. The CUP issued in respect of the Project will not be terminated or revoked, and the rights under the CUP shall not be diminished, with respect to any particular Phase of the Project as a result of a failure, breach, or default of the CUP, Project design features, Mitigation Measures, or Conditions by any other Phase of the Project.

The layout of the Project is shown in Exhibit 3-4, *Site Plan and Details*. The electricity generated by the Project would be transmitted to the nearby SCE distribution circuits either at the power poles located near the intersection of 90th Street East and Avenues F (for Phase 1) and F-8 (for Phase 2), or on the power poles located on 90th Street East directly across from the northern (for Phase 1) and southern (for Phase 2) portions of the Site. The power generated by Phase 1 of the Project will be sold to SCE.

The PV panels utilized by the Project will absorb sunlight and produce direct-current renewable electricity during daylight hours, on a year-round basis, without use of heat transfer fluid or cooling water. The major components of the proposed Project are summarized and described as follows and depicted on Exhibit 3-4, *Site Plan and Details*:

- A solar field of north-south rows of PV panels, mounted on either fixed-tilt or single-axis tracking systems on steel support structures;

- An electrical collection and inverter-transformer system that aggregates the output from the PV panels, inverts the electricity from direct current (DC) to alternating current (AC), and transforms the output voltage to 12.47 kilovolts (kV);

- Circuits, meters, relays, circuit breakers, fuses, surge protectors, poles, and other interconnection facilities, equipment, and distribution upgrades required to connect the Project to SCE's distribution circuits, whether at the Site or SCE's Redman Substation located on Avenue E and 90th Street East;

- A meteorological data collection system(s) configured to collect meteorological information for the Project; and

- Civil infrastructure, including driveways, internal access roads, secure fencing, landscaping, retention basins, and water tank(s) for fire protection.

The Project will include a remote Supervisory Control and Data Acquisition (SCADA) system that allows for the remote monitoring and control of the Project. The facility would have no toilet or onsite septic or sewer system connections, nor would there be any potable water lines. Any onsite water for ongoing use, which would be intermittent and minimal, would be brought to the Site from available commercial water sources acceptable to the County. At the end of its economical useful life, the Project will be decommissioned and the Site restored in accordance with County requirements and an approved Decommissioning Plan.

Solar Photovoltaic Panels

The Project solar field would consist of PV panels mounted on steel support structures. The supports would be configured with a fixed-tilt or pivoting, single-axis tracking system. The assembled PV panels would have a typical height of about six feet and a maximum height of approximately eight feet, depending on the angle of the tracking system (if applicable) as it changes over the course of each day. The PV panels would consist of polycrystalline or thin film panels, and would be arranged in rows with center-to-center spacing of approximately 10-25 feet. The rows would be aligned north to south, and if mounted on a tracking system, the PV panels would pivot to an angle of up to 60 degrees around a north-south axis, tracking the sun from east to west. The mounting poles for the panels would be approximately six inches in diameter.

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EXHIBIT 3-1
REGIONAL LOCATION

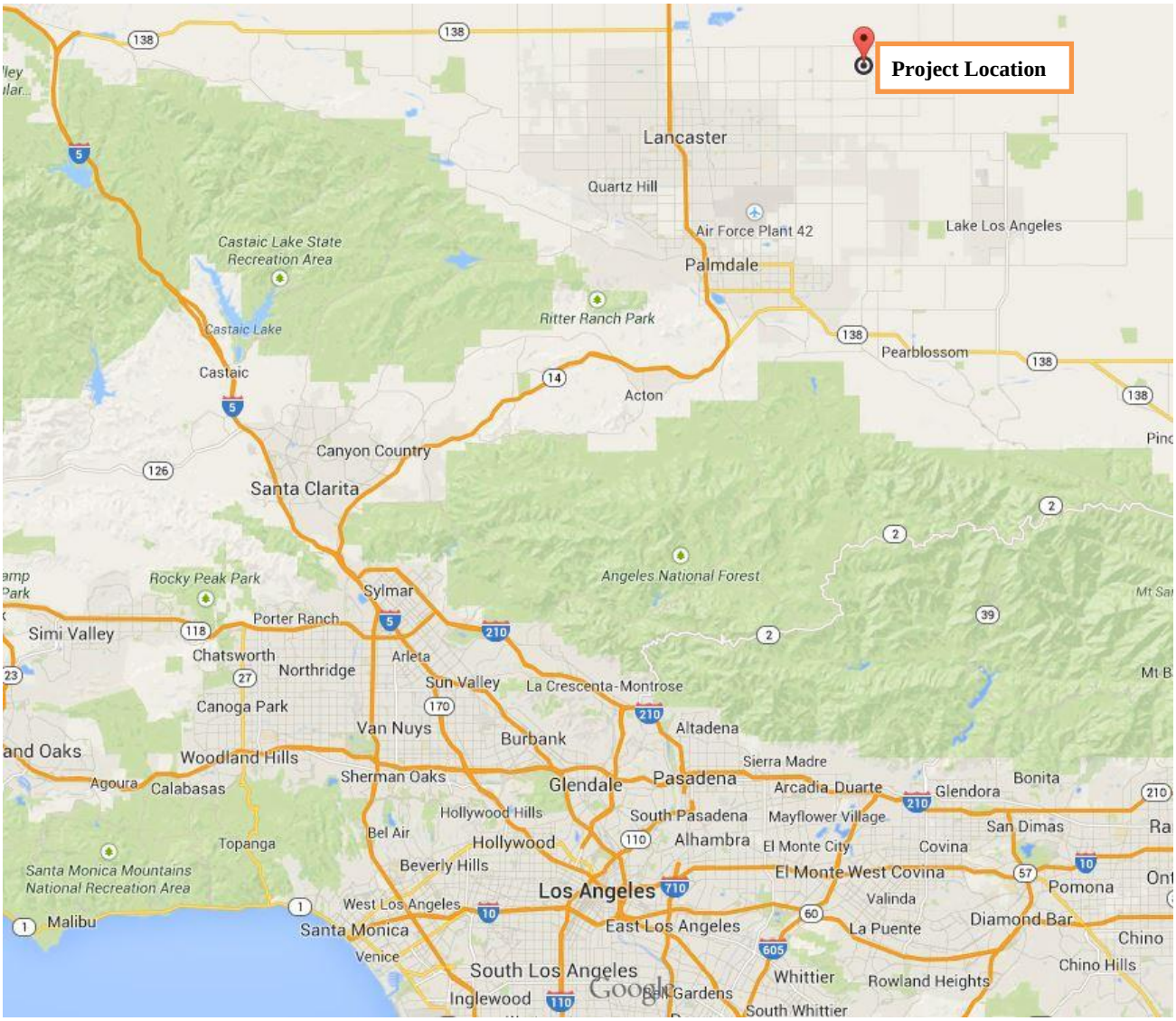

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EXHIBIT 3-2
REGIONAL LOCATION

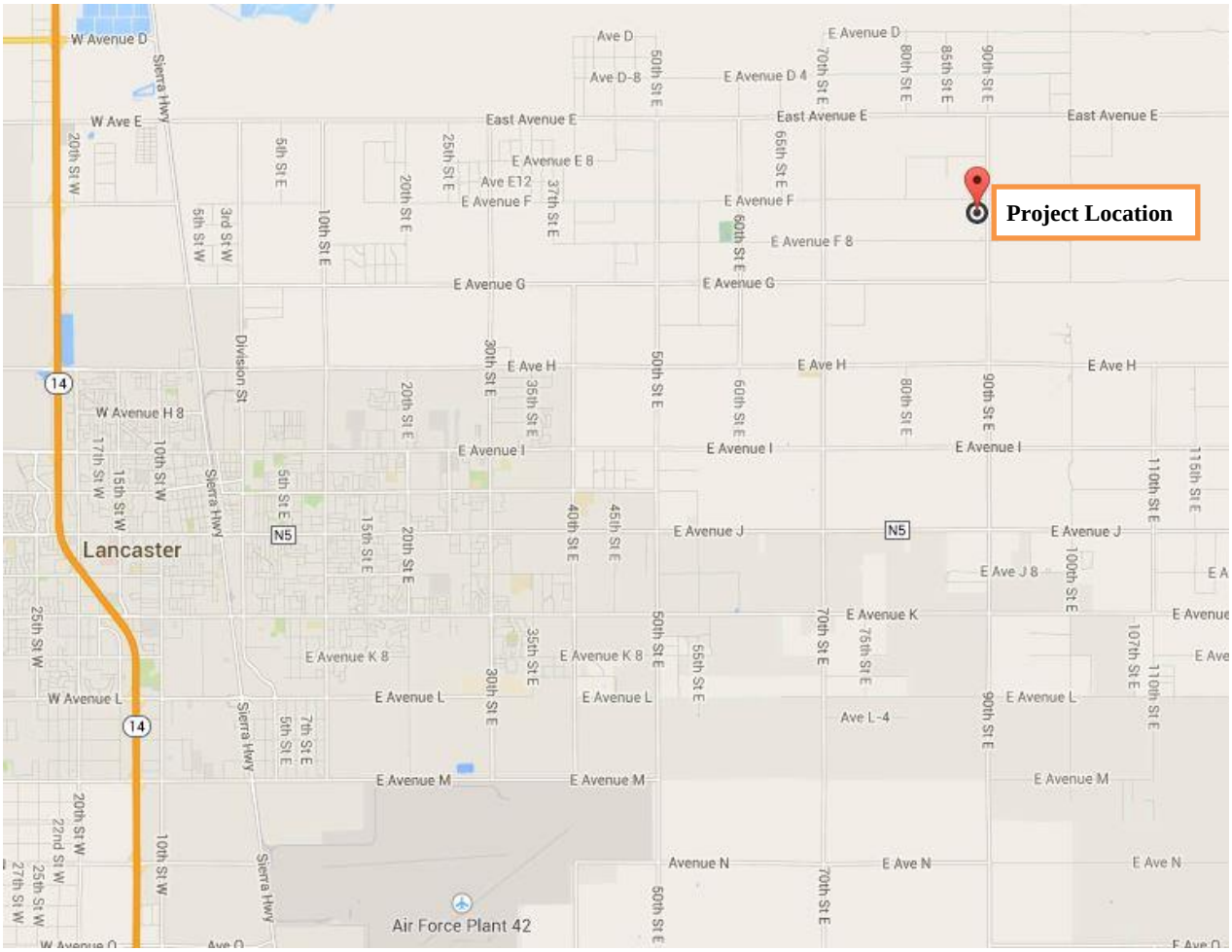

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EXHIBIT 3-3A
SITE PHOTOS

Northeast Corner Facing South

North Boundary Facing South

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EXHIBIT 3-3B
SITE PHOTOS

Northeast Corner Facing Northeast

East Boundary Facing West

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EXHIBIT 3-3C
SITE PHOTOS

Southeast Corner Facing Northwest

Southwest Corner Facing North

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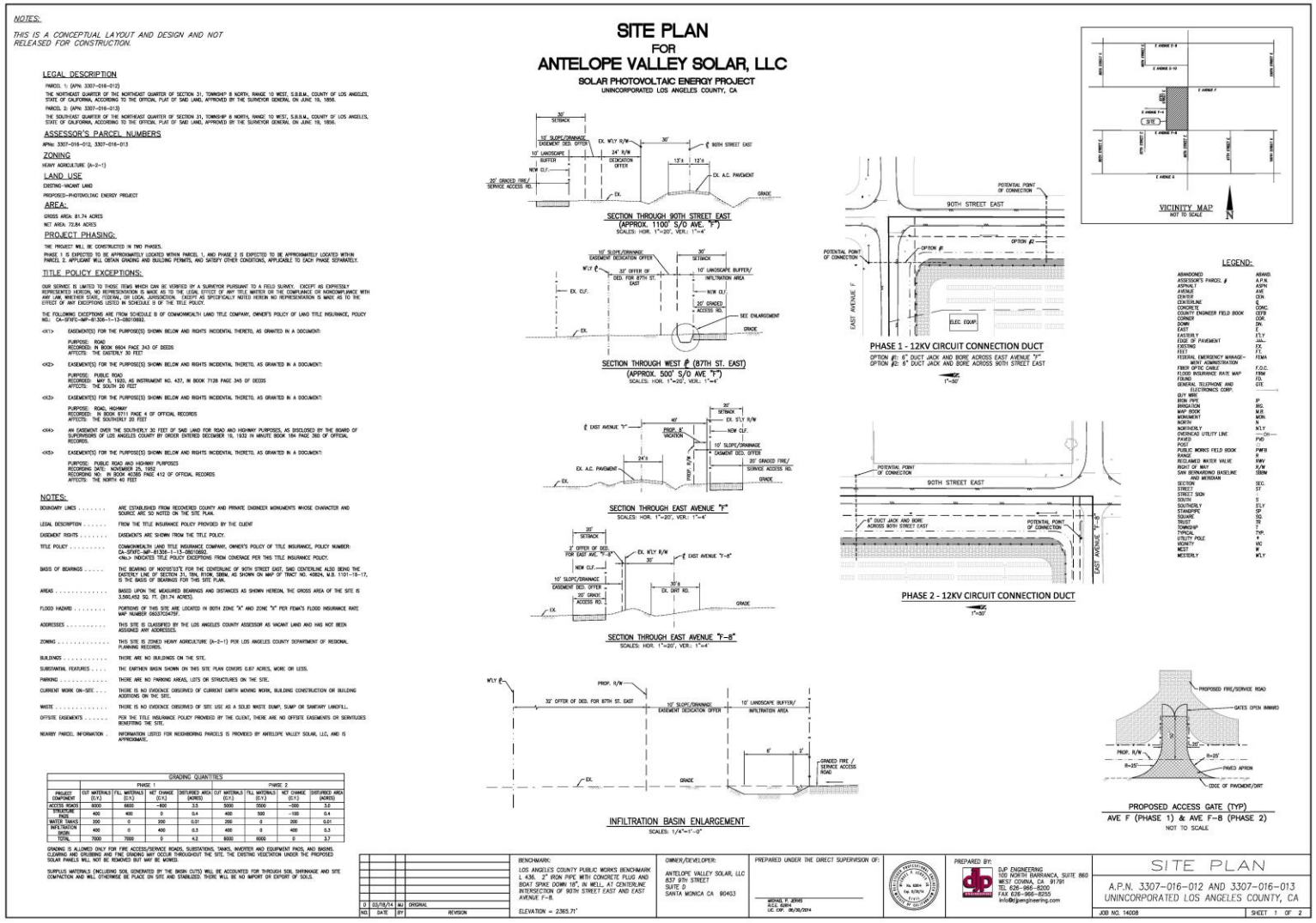
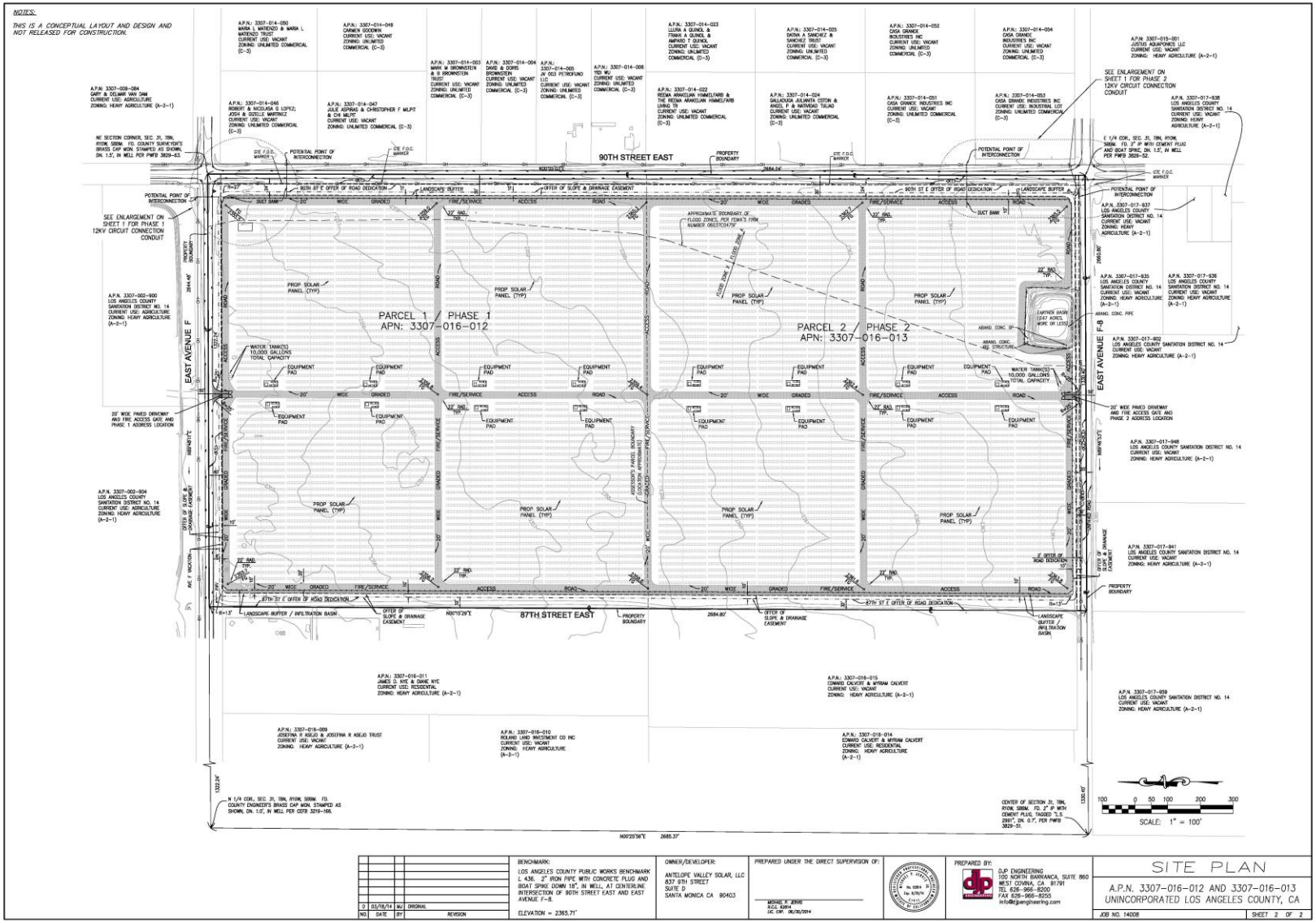
Exhibit 3-4
Site Plan and Details




NOTES:
THIS IS A CONCEPTUAL LAYOUT AND DESIGN AND NOT RELEASED FOR CONSTRUCTION.
90TH STREET EAST
87TH STREET EAST
EAST AVENUE F
EAST AVENUE F-8
PARCEL 1 / PHASE 1
APN: 3307-016-012
PARCEL 2 / PHASE 2
APN: 3307-016-013
PROP. SOLAR PANEL (TYP)
EQUIPMENT PAD
WATER TANK(S) 10,000 GALLONS TOTAL CAPACITY
SEE ENLARGEMENT ON SHEET 1 FOR PHASE 1 12KV CIRCUIT CONNECTION CONDUIT
SEE ENLARGEMENT ON SHEET 1 FOR PHASE 2 12KV CIRCUIT CONNECTION CONDUIT
POTENTIAL POINT OF INTERCONNECTION
LANDSCAPE BUFFER
OFFER OF SLOPE & DRAINAGE EASEMENT
LANDSCAPE BUFFER / INFILTRATION BASIN
PROPERTY BOUNDARY
SCALE: 1" = 100'
BENCHMARK:
LOS ANGELES COUNTY PUBLIC WORKS BENCHMARK L 436. 2" IRON PIPE WITH CONCRETE PLUG AND BOLT SPIKE DOWN 18", IN WELL, AT CENTERLINE INTERSECTION OF 90TH STREET EAST AND EAST AVENUE F-8.
ELEVATION = 2365.71'
OWNER/DEVELOPER:
ANTELOPE VALLEY SOLAR, LLC
837 9TH STREET
SUITE D
SANTA MONICA CA 90403
PREPARED UNDER THE DIRECT SUPERVISION OF:
PREPARED BY:
DJP ENGINEERING
100 NORTH BARRANCA, SUITE 860
WEST COVINA, CA 91791
TEL 626-966-8200
FAX 626-966-8255
info@djpengineering.com
SITE PLAN
A.P.N. 3307-016-012 AND 3307-016-013
UNINCORPORATED LOS ANGELES COUNTY, CA
JOB NO. 14008
SHEET 2 OF 2
0 03/18/14 MJ ORIGINAL
NO. DATE BY REVISION

Electrical Collection System

The PV panels would be organized into electrical groups referred to as "blocks". Each block consists of PV panels capable of producing about one MWac and would include an equipment pad (approximately 12' x 35') containing one or more inverters and transformers. The inverter-transformer equipment pads will be prefabricated or assembled on site. The size of each block would depend primarily on the ratio of DC power to AC power and the distance between the rows of panels (commonly known as the ground coverage ratio or "GCR"). The lower the GCR, the less space the PV panels occupy, thereby minimizing shading from row to row in the early morning and late afternoon hours.

Conductors from the PV panels are wired together in series and parallel and terminate into DC combiner boxes. From the combiner boxes, the cabling would transition underground via buried trenches, feeding into the inverters and associated transformers.

From the transformers, the electricity would be conveyed via an underground collector circuit to the Project switchgear located near the northern (for Phase 1) or southern (for Phase 2) portions of the Site. The switchgear will contain interconnection facilities for the Project, such as circuits, meters, circuit breakers, fuses, switches, relays, poles, and other similar equipment, some of which will be owned by SCE and some of which will be owned by the Project. From the Project switchgear, the electricity would be conveyed via a 12kV circuit to the nearby SCE distribution circuits that border the Site. In connection with the Project, SCE may install certain equipment at the Redman Substation to provide protection or otherwise improve or upgrade SCE's utility grid.

Meteorological Data Collection System

The Project would also include one or more meteorological data collection systems, which would be configured to collect the meteorological data, such as global horizontal irradiance, global irradiance/plane of array, ambient temperature, PV cell temperature, wind speed, wind direction, relative humidity, precipitation, barometric pressure, and visibility. Information gathered from these systems would be used to monitor the PV panels for optimum utilization.

Driveways and Access Roads

As depicted on Exhibit 3-4, *Site Plan and Details*, the Project would contain up to two access points. One access point would be located off of Avenue F at the northern boundary of the Site to service Phase 1 of the Project, and the second access point (if needed) would be located off of Avenue F-8 at the southern boundary of the Site to service Phase 2 of the Project. Each driveway would provide access for emergency vehicles and for maintenance and operation purposes. A network of 20-foot-wide access roads would also be provided around the perimeter and throughout the Site in compliance with applicable Los Angeles County Fire Department (LACFD) design requirements. The interior and perimeter access roads would be flat, with slopes less than four percent and would be graded closely to the existing elevation to minimize the earthwork for the Project.

Drainage

Existing and proposed flows and volumes have been calculated for 2-, 5-, 10-, 25-, and 50-year storm events to determine the quantity of storm water to be retained on Site. Storm water impacts are further discussed in Section 4.10 (Hydrology and Water Quality) of this IS/MND. Based on the analysis, the increased volume from a capital storm event (difference between post-development and pre-development volumes) will be retained in small retention basins located along the northern boundary of

each Phase of the Project, or at such other location(s) acceptable to the County. This retention basin(s) will not inhibit emergency vehicles or maintenance activities, and the soil displaced by each basin would be spread across the Site.

Landscaping

This Project has been designed to maintain existing vegetation and minimize disturbed areas by keeping grading and ground disturbance to a minimum. A Landscape Plan would be prepared, subject to review and approval by the County, which would include drought-tolerant vegetation (spaced at regular intervals) along (a) the portions of the perimeter fence parallel to 90th Street East, and (b) the northern and southern 500-foot portions of 87th Street East. The landscaping along the northern and southern portions of the Site would be accomplished with Phase 1 and Phase 2 of the Project, respectively. The landscaping will partially obscure and screen views into the Site and increase the visual aesthetics of the area surrounding the Site. The land north, south, and west of the center of the Site is vacant or used for agricultural purposes, and a landscaping buffer would be unnecessary. Irrigation of the landscaping via water trucks would be conducted for up to three years after planting in order to establish the landscaping. No long-term irrigation infrastructure is proposed.

Fencing

The perimeter of the Site would be secured by six-foot-high chain-link fencing with an additional one to two feet of three-strand barbed wire. The fencing required to enclose Phase 1 of the Project will be accomplished with Phase 1 of the Project, and the fencing required to enclose Phase 2 of the Project will be accomplished with Phase 2 of the Project. The driveways on Avenues F and F-8 would have gates at least 20 feet long and would be setback 50 feet from the road edge to allow for LACFD and maintenance access. “Warning High Voltage” signs may be placed on the fencing at regular intervals on the Site fencing and at each gate per the County requirements.

Lighting

Lighting may be installed in specific locations around the periphery of the Site, as required for nighttime security purposes. Any lighting would consist of modern, low intensity, downward-shielded fixtures that are motion-activated, and would be directed onto the Site. Motion-detectors would be set at a sensitivity level that could not be triggered by small animal movement.

Fire Suppression and Water Tanks

The proposed interior and perimeter access roads would provide access for fire and emergency vehicles. Per LACFD requirements, all vegetation would be trimmed to a maximum height of six inches within the boundaries of the solar array. One or more water tanks would be installed on the Site near the access gate(s) to provide water for fire suppression. Each water tank be designed and labeled per LACFD requirements.

3.5 PROJECT CONSTRUCTION

Project construction would include several phases (some of which may occur in parallel), including (1) Site preparation and surveying; (2) pile driving piers or posts and placing frames or trackers on support piers; (3) trenching and installing DC and AC collection systems, including inverter and transformer pads; (4) PV panel installation and electrical connections; and (5) Project commissioning.

Construction Phasing and Schedule

Construction of Phase 1 of Project is anticipated to commence during early to mid-2015, with the facility in operation by the fourth quarter of 2015 at the latest. Once construction has commenced, Phase 1 and Phase 2 of the Project will each require 3-6 months to complete. Construction activities would occur between the hours of 7:00 AM and 7:00 PM Monday through Saturday.

Construction Workforce and Staging

Trip generation for employees and delivery trucks would vary depending on the phase of construction. The anticipated peak traffic day for construction of each Phase of the Project, which would occur when equipment delivery trucks overlap with worker trips for panel installations, would involve approximately 46 round-trip truck trips (including approximately 20 water truck trips) and 40 round-trip worker trips per day. This peak activity is estimated to occur over approximately 12 working days, but may be more or less depending on the actual timing of construction phase overlap.

It is anticipated that Phase 1 and Phase 2 of the Project will be constructed at separate times. However, to assume the worst case scenario, Applicant has calculated the air quality, greenhouse gas, and traffic impacts of the Project as if the construction of Phase 1 and Phase 2 of the Project would occur concurrently. In the event Phase 1 and Phase 2 of the Project are constructed concurrently, the anticipated peak traffic day for construction would involve approximately 70 round-trip truck trips (including approximately 35 water truck trips) and 60 round-trip worker trips per day. This peak activity is estimated to occur over approximately 20 working days, but may be more or less depending on the actual timing of construction phase overlap.

Table 3-1, Construction Equipment, lists commonly associated equipment with the construction of solar facilities.

Table 3-1, Construction Equipment

Type of Equipment	Anticipated Quantities
Grader	1
Dozer	1
Tractors / Loaders / Backhoes	2-3
Trucks (Water / Haul)	3-6
Trenchers	1
Welders	1-2
Forklift	1-2
Generator set	1-3

Construction staging and material lay-down areas would be set up for each section of the Site to allow for efficient distribution of components to different parts of the Project. These lay-down areas would be located within the Site boundaries and may be temporarily fenced.

The Project would provide a mobile sanitation facility for use by workers during the construction and operations and maintenance periods. Potable water will be brought to the Site for drinking and domestic needs. Potable drinking water will be made readily available to individuals working on the Site, either by bottled water or a sealed drinking water container with single-use cups. Any drinking water container will be maintained in good condition and washed daily (or more frequently if needed) to prevent contamination of the drinking water. Per Los Angeles County Department of Public Health regulations, a Mobile Sanitation Facility Plan would be submitted for review prior to construction (LACDPH 2012). The mobile sanitation facility would be maintained in a safe and sanitary condition so as not to constitute

a public hazard or nuisance. Waste generated by the mobile sanitation facility would be disposed and treated per County regulations.

Grading Activities

The Site is flat with an approximately 10-foot change in elevation (0.34 percent slope) from the southeast to the northwest corner of the Site. Grading and ground disturbance for the Project would be minimal and primarily limited to access roads, equipment pads (including inverter-transformer pads and Project switchgear), water tanks, and retention basins. Mass site grading will not be utilized. The solar arrays would be installed using pile-driving techniques, rather than grading, to minimize soil disturbance. Any undulations in the terrain would be accounted for by varying the mounting height of the PV panels. This reduced grading would help maintain existing hydrologic features and patterns on the Site. Table 3-2, Grading Quantities, shows the anticipated grading and ground disturbance quantities and acres of impact due to Project implementation.

TABLE 3-2
GRADING QUANTITIES

	Phase 1				Phase 2			
Project Component	**Cut Materials (C.Y.)**	**Fill Materials (C.Y.)**	**Net Change (C.Y.)**	**Disturbed Area (Acres)**	**Cut Materials (C.Y.)**	**Fill Materials (C.Y.)**	**Net Change (C.Y.)**	**Disturbed Area (Acres)**
Access Roads	6,000	6,600	-600	3.5	5,000	5,500	-500	3.0
Structure Pads	400	400	0	0.4	400	500	-100	0.4
Water Tanks	200	0	200	0.01	200	0	200	0.01
Retention Basins	400	0	400	0.30	400	0	400	0.30
Totals	7,000	7,000	0	4.21	6,000	6,000	0	3.71

Notes: Grading is allowed only for fire access/service roads, water tanks, inverter, equipment, and switchgear pads, and retention basins. The existing vegetation under the proposed solar panels will not be removed but may be mowed. Soil generated by the basin cuts will be accounted for through soil shrinkage and Site compaction, or placed adjacent to the basins and stabilized. There will be no import or export of soils.

In total, it is expected that about 4.21 acres of the Site will be graded for Phase 1 of the Project, and about 3.71 acres for Phase 2 of the Project, which amounts constitute approximately 11 percent of the total net area of the Site (=7.92 acres /72 acres). No import or export of soils is proposed as part of the Project. The existing vegetation in all other areas of the Site would be mowed to a maximum height of six inches, per LACFD requirements. Minor trenching would be required to electrically connect all Project components.

Dust and Erosion Control

During construction, the Project would control fugitive dust pursuant to a Dust Control Plan in accordance with the Antelope Valley Air Quality Management District's (AVAQMD's) Rule 403(see MM AQ-1).Additionally the Project would be required to prepare a Storm Water Pollution Prevention Plan (SWPPP) as required by the State Water Resources Control Board's Construction General Permit, which would further control water and wind erosion during construction. The Dust Control Plan and SWPPP would incorporate a number of strategies during construction to control fugitive dust due to high winds from the Site, including the following:

- Minimal Grading and Ground Disturbance: The Project would perform the minimum amount of grading and disturb the minimum amount of existing vegetation to construct the Project. The existing vegetation in all other areas would be mowed to a height consistent with vegetation management requirements and left in place.

- Construction Scheduling: Grading activities would be temporarily halted and/or Site watering would be increased during wind speeds that exceed 25 miles per hour, or when visible dust plumes have the potential to be transported off of the Site.

- Water Application: During construction, the Project would apply water to control fugitive dust from the Site as necessary and required by the AVAQMD.

- Soil Binders/Wood Mulch: Soil binders or wood mulch would be applied if and as necessary.

- Monitoring: A qualified construction mitigation manager or delegate ("CMM") would be on-site during all grading activities to ensure compliance with the approved Dust Control Plan. The CMM would monitor all construction activities for visible dust plumes, and would promptly implement additional dust plume reduction measures in the event that such visible dust plumes are observed. Additional measures to be implemented, as necessary, would include increased watering, application of dust palliatives, and/or scaled back construction activities up to and including temporary work cessation.

Construction Water Demands

During construction, water would be used to suppress fugitive dust during grubbing, clearing, grading, trenching, and soil compaction. Water for construction activities can be of non-potable quality. All construction water would be trucked to the Site from available commercial water sources acceptable to the County, including obtaining water deliveries (a) through the County Waterworks District 40 (the "District") and/or LACSD for recycled water, (b) through a negotiated program between the Antelope Valley-East Kern Water Agency (AVEK) and the District, (c) purchasing a new permanent water supply, or contracting with a water bank outside the Antelope Valley Groundwater Basin for the Project and transferring those supplies to the AVEK and the District for use in connection with the Project, (d) purchasing potable or non-potable water from the City of Lancaster, City of Palmdale, or other city, public agency, public entity, district, or public or private water purveyor authorized to sell water to the Project, (e) on-site wells (to the extent permitted), or (f) any other source acceptable to the County.

Applicant has estimated the maximum short-term construction water use to be 24 acre-feet for Phase 1 of the Project, and 17 acre-feet for Phase 2 of the Project. This estimate is based on estimates from other solar construction contractors and a review of other CEQA documents prepared for other solar projects in the area. These short-term construction water supply estimates are conservative estimates based on a mass site grading approach rather than the minimal grading and mowing technique proposed and described in this IS/MND. These conservative estimates were developed and then multiplied by a factor of two to further allow for any unforeseen weather events and soil conditions that would necessitate additional water use to control fugitive dust, even with the mowing technique proposed. Therefore, these estimates represent the worst case scenario. Implementation of best management practices as described herein would result in lower actual water use than that estimated in this IS/MND.

3.6 PROJECT OPERATIONS

Workforce

Once Project operations commence, skilled operations monitoring personnel would monitor the Project remotely reviewing information provided through the SCADA system. In many cases, system faults are auto-correctable and do not require reactive repair at the Site. A small workforce of two to four individuals will perform the ongoing operations and maintenance ("O&M") for the Project on the Site one to three times per year. The workforce is comprised of general labor for cleaning purposes; skilled electricians for visual inspections, repairs, and performance testing; and skilled mechanics to inspect and maintain the mechanical portions of the tracking system (if applicable).The Project would provide a mobile sanitation facility for use by workers during O&M activities per County requirements. Potable water will be brought to the Site for drinking and domestic needs.

PV Panel Cleaning

In addition to O&M of the Project equipment, the PV panels will require cleaning zero to four times per year to remove dust buildup, grime, bird droppings, and/or soot, typically (but not exclusively) with demineralized water. Cleaning water would be allowed to infiltrate into the ground or evaporate as it drips off the PV modules. Cleaning water will not contain any toxic chemicals.

The amount of panel washing is variable depending on the annual rainfall along with wind and dust in the area. Using standard industry estimates, Applicant anticipates that each of Phase 1 and Phase 2 will require about 0.25 acre feet of water per year for PV panel cleaning.

Landscape Irrigation

The Project includes a 10-foot-wide strip for drought-tolerant vegetation (spaced at regular intervals) along the portions of the perimeter fence parallel to 90th Street East, and the northern and southern 500 feet of 87th Street East. The landscaping along the northern and southern portions of the Site would be accomplished with Phase 1 and Phase 2 of the Project, respectively. The landscaping buffer for Phase 1 and Phase 2 are each approximately 0.5 acres in size. Once established, the species would not require on-going irrigation. The irrigation needs for landscaping establishment are assumed to last for three consecutive years following installation. Using formulas provided for the IS/MND for the West Antelope Solar Energy Project, Project No. R2012-01589-(5), located in Los Angeles County, west of the City of Lancaster, Applicant estimates that 1.46 acre-feet of water is required for each acre of landscape buffer, or approximately 0.73 acre-feet per year is required for each of Phase 1 and Phase 2 of the Project. Irrigation via water trucks will be conducted until the landscaping is established at a rate of approximately once a week for the first year, twice a month for the second year, and once a month for the third year.

3.7 DECOMMISSIONING

A Decommissioning Plan for the Project would be prepared and submitted to the County for approval prior to the issuance of a grading permit. This Decommissioning Plan would ensure that the Site is returned to a beneficial use upon termination of both Phases of the Project. While the Project may be decommissioned after the 20 year life of the power purchase agreement for each Phase of the Project, it is more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. In connection with the decommissioning efforts, Applicant (conservatively) estimates that approximately 17 acre-feet of water will be required for each of Phase 1 and Phase 2 of the

Project in connection with landscaping and other vegetative restoration.

3.8 TOTAL PROJECT WATER USAGE

Table 3-3, Estimated Water Usage, provides an estimate of the total water required for the Project.

TABLE 3-3
ESTIMATED WATER USAGE

	Phase 1 (acre-feet)	**Phase 2 (acre-feet)**	**Total Project (acre-feet)**
Construction	24	17	41
Landscaping (3 years)	2.19	2.19	4.38
PV Panel Cleaning (20 years)	5	5	10
Decommissioning	17	17	34
Total:	48.19	41.19	89.38

This estimated water requirement is conservative in nature and represent a worst case scenario. Applicant does not expect the construction, landscaping, PV panel cleaning, or decommissioning for either Phase 1 or Phase 2 of the Project to require as much water as identified in Table 3-3 above.

3.9 REGULATORY BACKGROUND& PERMITS

In 2002, the California Senate adopted Senate Bill (SB) 1078 (later accelerated by SB 107 in 2006), which established California's Renewables Portfolio Standard ("RPS"). The RPS requires electric service providers to increase the use of eligible renewable energy resources by at least one percent of their retail sales annually until they reach 20 percent by 2010. Executive Orders S-14-08 (issued on November 17, 2008) and S-21-09 (issued on September 15, 2009) establish a further goal of 33 percent renewable energy use by 2020. The California Public Utilities Commission and the California Energy Commission are jointly responsible for implementing this program. The energy generated by the Project will be sold to SCE and will assist SCE in meeting its RPS requirements.

In accordance with Section 22.24.150(A) and Section 22.56 of the County Zoning Code, the Project, as an electric generating facility, is a permitted use of the Site following receipt of a CUP from the County. Following receipt of the CUP, Applicant will obtain a grading permit, building permit, encroachment permit (for driveway aprons), and such other ministerial permits required to construct the Project in accordance with all federal, state, and local codes and requirements.

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ENVIRONMENTAL CHECKLIST

This section contains the completed CEQA form checklist for the Project, identifying potential significant impacts and providing analysis and substantiation for each such impact.

1.	Project Title:	Antelope Valley Solar Renewable Energy Project
2.	Lead Agency:	County of Los Angeles 320 West Temple Street, Los Angeles, California 90012
3.	Point of Contact:	Mr. Anthony Curzi County of Los Angeles, Dept. of Regional Planning (213) 974-6443
4.	Project Location:	Southwest corner of 90th Street East and Ave. F, unincorporated Los Angeles County, California
5.	Project Sponsor:	Antelope Valley Solar, LLC 837 9th St, Suite D, Santa Monica, CA 90403
6.	General Plan Designation:	N-1 (Non-Urban 1)
7.	Zoning:	A-2-1(Heavy Agricultural – One Acre Minimum Required Lot Area)

8. Project Description: The Project is a solar energy facility that would produce up to 7.45 MWac of renewable electric power during daytime hours to be constructed in two phases on approximately 72 (net) acres of vacant, disturbed agricultural land that was last farmed on or before 1974. The major components of the Project include: (a) a solar field of north-south rows of PV panels, mounted on fixed-tilt or single-axis tracking systems; (b) an electrical collection and inverter-transformer system; (c) circuits, meters, relays, circuit breakers, fuses, surge protectors, poles, and other interconnection facilities, equipment, and distribution upgrades required to connect the Project to SCE's distribution circuits, whether at the Site or SCE's Redman Substation located on Avenue E and 90th Street East; (d) a meteorological data collection system(s); and (e) civil infrastructure, including driveways, internal access roads, secure fencing, landscaping, retention basins, and water tank(s) for fire protection. At the end of its economically useful life, the Project will be decommissioned in accordance with the County requirements.

9. Surrounding Land Uses: The Site is located in a sparsely-developed, rural area of north Los Angeles County. The Site is vacant and does not contain any structures. With the exception of a few parcels located immediately west of the Site, all of the land north, south, and west of the Site is owned by the Los Angeles County Sanitation District and used as an offsite storage location for its treated sewage water via crop circle alfalfa farming. There are two residences near the northwest and southwest corners of the Site. The remaining land immediately west of the Site is vacant. Other than a small parking lot for industrial vehicles near the southeast corner of the Site, the land east of the Site (beyond 90th Street East) is vacant or used for alfalfa farming. There are no other residences or commercial operations within approximately one mile of the Site. The only industrial uses in the vicinity of the Project are SCE's distribution and transmission lines near the Site boundaries, and SCE's Redman substation approximately one mile north of the Site.

ENVIRONMENTAL FACTORS

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Less Than Significant With Mitigation" as indicated on the following pages.

☒ Aesthetics

☒ Air Quality

☒ Cultural Resources

☐ Geology and Soils

☒ Hazards and Hazardous Materials

☐ Land Use and Planning

☐ Noise

☐ Public Services

☐ Transportation/Traffic

☒ Mandatory Findings of Significance

☐ Agriculture and Forest Resources

☒ Biological Resources

☐ Energy

☐ Greenhouse Gas Emissions

☐ Hydrology and Water Quality

☐ Mineral Resources

☐ Population and Housing

☐ Recreation

☒ Utilities and Service Systems

DETERMINATION:

On the basis of this initial evaluation:

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

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

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

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

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

Lead Agency:

Anthony Curzi, County of Los Angeles

Nov. 4, 2014
Date

4.1 AESTHETICS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Be visible from or obstruct view from a regional riding or hiking trail?	☐	☐	☒	☐
c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
d) Substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features?	☐	☒	☐	☐
e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

4.1.1 Environmental Setting

The Site is located in a sparsely-developed, rural area of north Los Angeles County. Onsite vegetation consists mostly of sparse, low-growing, desert scrub. There are no trees (including Joshua trees) of any kind on the Site.

With the exception of the Site, and a few parcels located immediately west of the Site, all of the land north, south, and west of the Site between Avenues D and G and 70th and 90th Streets East (approximately six square miles) is owned by the Los Angeles County Sanitation District ("LACSD"). LACSD uses this land as an offsite storage location for its treated sewage water via crop circle alfalfa farming. The land immediately west of the Site is vacant with the exception of two residences near the northwest and southwest corners of the Site. Other than a small parking lot for industrial vehicles immediately east of the southeast corner of the Site, the land east of the Site (beyond 90th Street East) is vacant or used for alfalfa farming. There are no other residences or commercial operations within approximately one mile of the Site. There are no industrial or manufacturing land uses in the Project vicinity, with the exception of SCE's Redman Substation, which is located approximately one mile north of the Site at Avenue E and 90th Street East. Recent photos of the Site are provided on Exhibit 3-4, *Site Photos*.

SCE has constructed, owns, and operates a number of overhead distribution and sub-transmission power lines near and along the borders of the Site. Specifically, on the east side of 90th Street East, near the eastern border of the Site, SCE has constructed an overhead, 66kV sub-transmission circuit together with two overhead 12kV distribution circuits. Additionally, SCE has constructed overhead, branch distribution circuits on the north sides of both Avenue F and Avenue F-8. Finally, the west side of 90th Street East is improved with overhead cable and telephone circuits. Approximately one mile north of the Site is SCE's Redman substation, which contains multiple 66kV / 12kV transformers, along with meters, switches, futures, telecommunication, and other substation equipment.

According to the California Scenic Highway Mapping System, there are no officially designated or eligible State scenic highways near the Site vicinity (Caltrans 2007), and none of the roads surrounding the Site are identified as scenic corridors (either as Adopted Routes, First Priority Routes, or Second Priority Routes) under the County General Plan and the Antelope Valley Areawide General Plan (LACDRP 1980, 1986).

The area surrounding the Site is a rural environment with few existing land uses that emit ambient light. There are no street or traffic lights in the vicinity of the Site.

4.1.2 Project Impacts

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact. There are no designated or eligible State scenic highways or vistas in the vicinity of the Site (Caltrans 2007), and none of the roads surrounding the Site are identified as scenic corridors (either as Adopted Routes, First Priority Routes, or Second Priority Routes) under the County General Plan and the Antelope Valley Areawide General Plan (LACDRP 1980, 1986). In the absence of designated scenic vistas, the impact of the Project on such vistas is less than significant.

As shown on Exhibit 4-1, *Photo Simulation* the proposed solar array would stand between six and eight feet tall, and would not degrade or obstruct views of the surrounding mountains and buttes from the vantage points surrounding the Site. From 90th Street East, the PV panels would largely be hidden behind the chain-link fence and the proposed landscape buffer. Therefore, there would be a less than significant impact to scenic resources and no mitigation is required.

b) Would the project be visible from or obstruct views from a regional riding or hiking trail?

Less Than Significant Impact. There are no designated riding or hiking trails within the vicinity of the Site. The Pacific Crest Trail (PCT), the most-notable trail in the area, is approximately 20 miles south, and at least 25 miles west, of the Site, and due to distance and intervening topography, views of the Site from the existing PCT alignment are very limited, if any. Implementation of the Project would not affect the visual experience. Additionally, based on historical data from the National Oceanic and Atmospheric Administration (NOAA) for the years of 2010 through 2013 “visibility” in the Antelope Valley was limited to less than 10 miles approximately 49 percent of the time between the hours of 7:00 AM and 7:00 PM (NOAA 2013). Therefore, even if there are limited views of the Site from PCT, it would not be visible at least half of the daylight hours.

A Decommissioning Plan for the Project would be prepared and submitted to the County for approval prior to the issuance of a grading permit. This Decommissioning Plan would ensure that the Site is returned to a beneficial use upon termination of both Phases of the Project. Therefore, impacts are less than significant and not mitigation is required.

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

No Impact. As previously discussed, there are no designated or eligible State scenic highways or vistas in the vicinity of the Site (Caltrans 2007), and none of the roads surrounding the Site are identified as scenic corridors (either as Adopted Routes, First Priority Routes, or Second Priority Routes) under the County General Plan and the Antelope Valley Areawide General Plan (LACDRP 1980, 1986).The Site

does not contain any trees, rock outcroppings, or other prominent visual features. Therefore, there would be no impacts.

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

Less Than Significant With Mitigation. While the Project would not affect any designated scenic vistas, the Project involves the installation of a solar array and related appurtenances on currently undeveloped land. Thus, changes in the visual characteristics of the Site would occur. The proposed PV panels would be placed on mounting structures and are anticipated to reach approximately six to eight feet above the ground. If a tracking system is implemented, the top height of the panels would vary slightly throughout the day as the panels rotate to track the movement of the sun across the sky. The tallest components of the Project would be higher than eye-level and, therefore, the solar facility would obstruct views through the Site for viewers adjacent to the Site on adjacent roadways.

The lands surrounding the Site are largely open space and sparsely developed. Relatively few people are traveling on the roads adjacent to the Site at any given time. The Site is not located near any heavily visited land uses and would not be viewed regularly by the general public. The Project and associated fencing would not degrade or obstruct views of the surrounding mountains and buttes from the vantage points surrounding the Site. Nevertheless, the visual change in character of the Site from open space to developed solar facilities would be considered a significant impact.

Considering the mix of existing surrounding land uses (i.e., open space, rural development, agriculture, and utility infrastructure), implementation of the Project would be generally compatible with the character of the existing surrounding land uses. The utility-related function and aesthetic of the Project would not substantially degrade the character of the surrounding area. Per the Los Angeles County Code, electric generating plants are a conditionally allowed use in the Heavy Agricultural (A-2) zone upon obtaining a CUP, which shows that the County generally considers it to be a compatible use in the area. Further, "utility and communication installations" are allowed uses in the Non-Urban 1 land use category of the Antelope Valley Areawide General Plan (LACDRP 1986). There is existing electrical infrastructure in the area, including (a) SCE's transmission and distribution circuits on 90th Street East, Avenue F, and Avenue F-8, (b) SCE's Redman Substation at Avenue E and 90th Street East, and (c) the overhead telephone and/or cable circuits near and along the Site.

MM AES-1 requires the preparation of a Landscape Plan, subject to the review and approval of the County, mandating the planting of drought-tolerant plants along the portions of the perimeter fence parallel to 90th Street East, and the northern and southern 500-foot portions of 87th Street East. This landscaping would provide a visual buffer between the public roadways and the Project, and views into the Site would be obscured and naturalized through the use of the required landscaping along the perimeter fencing. Implementation of MM AES-1 would reduce the visual impacts of the onsite solar array to less than significant.

The property north of the Site includes Avenue F (a secondary County road) and LACSD land used for crop circle farming, and a landscaping buffer would be unnecessary. The property south of the Site includes Avenue F-8 (an unpaved, secondary County road) and vacant, unused land owned by LACSD, and likewise, a landscaping buffer would be unnecessary. Finally, the property west of the Site (other the north and south 500-foot portions of the western border of the Site) includes 87th Street East (an unpaved, and undedicated County road not suitable for vehicular use) and vacant, unused land owned by either private individuals or LACSD, and a landscaping buffer would be unnecessary.

As shown on Exhibit 4-1, *Photo Simulation*, the proposed solar array and associated fencing would not degrade or obstruct views of the surrounding mountains and buttes from the vantage points surrounding the Site. Exhibit 4-1 shows the proposed viewshed from the southeast corner of the Site looking north on 90th Street East. The viewshed depicted in Exhibit 4-1 would be further improved upon implementation of MM AES-1, which would reduce impacts to public views of the Site from adjacent areas. Implementation of MM AES-1 would reduce the visual impacts of the onsite solar array to less than significant.

A Decommissioning Plan for the Project would be prepared and submitted to the County for approval prior to the issuance of a grading permit. This Decommissioning Plan would ensure that the Site is returned to a beneficial use upon termination of both Phases of the Project. While the Project may be decommissioned after the 20 year life of the power purchase agreement for each Phase of the Project, it is more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. Therefore, any visual impacts created by the Project would exist only for the life of the proposed Project, and the Site would be restored per the County requirements thereafter.

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

Less Than Significant With Mitigation. As previously noted, the Site is a rural environment with few existing land uses that emit ambient light. Due to the rural nature of the surrounding area, any additional contribution of night lighting would be considered a significant impact.

The proposed Project may include perimeter lighting for security, but nighttime activities are not anticipated for the Project. Any lighting would be installed in specific locations around the periphery of the Site, as required for nighttime security purposes. In order to reduce potential impacts associated with the security lighting, MM AES-2 requires that any onsite lighting consist of modern, low intensity, downward-shielded fixtures that are motion-activated, and would be directed onto the Site. Since the lights would be motion-activated, they would only be occasionally visible by nearby residences when activity in the area triggers the lights. Motion-detectors would be set at a sensitivity level that could not be triggered by small animal movement. Implementation of MM AES-2 would reduce impacts from lighting to a level less than significant.

The Project's construction activities are planned to occur during daylight hours. Although not anticipated, nighttime construction (if any) will be conducted in accordance with appropriate County safety, noise, and other requirements. Increased truck traffic and the transport of the solar arrays and construction materials to the Site would temporarily increase glare conditions during construction. However, this increase in glare would be minimal and temporary. Construction activity would occur on focused areas of the Site as construction progresses and any sources of glare would not be stationary for a prolonged period of time. Additionally, the surface area of construction equipment would be minimal compared to the scale of the Site. Therefore, construction of the proposed project would not create a new source of substantial glare that would affect daytime views in the area. Impacts would be less than significant during the construction period.

During operations, the primary potential for glare would be from the glass surfaces of the PV panels in the Project. The PV panels would not be expected to cause significant glare because PV panels

EXHIBIT 4-1
PHOTO SIMULATION
VIEWSHED FACING NORTH FROM 90TH ST EAST & AVE F-8

EXISTING CONDITIONS

PROPOSED CONDITIONS

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are designed to absorb as much sunlight as possible and therefore would have minimal reflectivity. The proposed solar array would consist of flat-plate PV panels, which incorporate anti-reflective and/or diffusion coating technologies that reduce fugitive glare and increase the efficiency of the solar facility. Any glare impacts that would occur will be further reduced by intervening elements in the immediate viewshed, such as the chain-linked fence around the perimeter of the Site and the vegetative screening incorporated into the Project. Therefore, the proposed project would result in less-than-significant impacts related to glare from the Project.

A Decommissioning Plan for the Project would be prepared and submitted to the County for approval prior to the issuance of a grading permit. This Decommissioning Plan would ensure that the Site is returned to a beneficial use upon termination of both Phases of the Project. While the Project may be decommissioned after the 20-year life of the power purchase agreement for each Phase of the Project, it is more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. Therefore, all light and glare impacts discussed above would be eliminated entirely following the decommissioning of the Project.

4.1.3 **Mitigation Measures**

MM AES-1: The Project shall incorporate landscaping with drought-tolerant vegetation periodically spaced along the portions of the perimeter fence parallel to 90th Street East and parallel to the northern and southern 500-foot portions of 87th Street East. The landscaping parallel to the perimeter fencing for Phase 1 of the Project will be accomplished with Phase 1 of the Project, and the landscaping parallel to the perimeter fencing for Phase 2 of the Project will be accomplished with Phase 2 of the Project. A Landscape Plan shall be prepared by Applicant and reviewed and approved by the County. Irrigation via water trucks will be conducted until the landscaping is established.

MM AES-2: Any lighting that may be installed in specific locations around the periphery of the Site, as required for nighttime security purposes, shall consist of modern, low intensity, downward-shielded fixtures that are motion-activated, and will be directed onto the Site. Motion-detectors shall be set at a sensitivity level that cannot be triggered by small animal movement.

Implementation of these mitigation measures would reduce impacts to aesthetics to a less than significant level.

4.2 AGRICULTURE AND FOREST RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

4.2.1 Environmental Setting

The Site is located on undeveloped land, formerly used for agriculture purposes on or before 1974 (Earth Systems 2014a).The California Department of Conservation Farmland Mapping and Monitoring Program ("FMMP") identifies the Site as "Other Land" and the Site does not contain any Prime Farmland, Unique Farmland, or Farmland of State Importance (FMMP 2009). No agricultural lands within the County have ever been under a Williamson Act contract. As such, no part of the Site is under Williamson Act contract.

The Antelope Valley Areawide General Plan (AVAGP) designates "Agricultural Opportunity Areas" on its Hazards and Resources Map (LACDRP 1986). These areas historically or currently have an agricultural use. The AVAGP calls "for these areas to be protected from incompatible uses". The Site is in an area designated as an Agricultural Opportunity Area on the AVAGP's Hazards and Resources Map (LACDRP 1986).

There are no trees (including Joshua trees) of any kind on the Site, and there are no forest lands on the Site or surrounding the Site. The Site has never been developed and has not supported native trees under natural conditions.

4.2.2 Project Impacts

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Site does not contain Prime Farmland, Farmland of Statewide Importance or Unique Farmland as designated by the California Department of Conservation. Therefore, there would be no impact.

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

Less Than Significant Impact. The Site is zoned for "Heavy Agricultural" use; designated as "Non-Urban 1" by the General Plan's Land Use Map; and an "Agricultural Opportunity Area" by the AVAGP (LACDRP 1980, 1986). The Site is not under a Williamson Act contract, and is designated as "Other Land" under the FMMP. The historic aerial photographs demonstrate that the Site has not supported any agricultural uses since on or before 1974 (Earth Systems 2014a), and the Project would result in the conversion of the Site to a non-agricultural land use. With the exception of LACSD property which uses recycled water as an input, the majority of properties in the vicinity of the Site do not have sufficient water to irrigate crops. Many of these properties have ceased farming activity over the last two decades and remain as unproductive fallow land.

Electric generating plants are a conditionally allowed use in the Heavy Agricultural zone upon obtaining a CUP (LACDRP 1986). Also, as identified in the draft Antelope Valley Areawide General Plan Update, Policy COS 7.3 supports the use of alternative and renewable energy systems in conjunction with agricultural activities (LACDRP 2011b).

The AVAGP allows for applications for non-agricultural uses in "Agricultural Opportunity Areas", but states that they must be evaluated for their impact upon adjacent agricultural operations. As a stand-alone solar generating facility, the Project would not impact any adjacent agricultural operations. The proposed PV panels and accessory components would not be tall enough to cast shadows on adjacent crops and affect productivity. Further, the proposed Project would not impact the limited groundwater supply in the area by reducing the amount of water available for irrigation.

While the Project will remove some land from agricultural use, the Site has not been farmed since at least 1974, and future agricultural operations on the Site appear unlikely. Therefore, the impact of the Project on agricultural use would be less than significant.

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

No Impact. The Project does not include forest land, timberland, or timberland zoned Timberland Production, nor would it include any conversion of forest land. The Project also would not cause changes in the environment that could indirectly affect the conversion of forest land to non-forest use. Therefore, there would be no impact.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. See discussion in Section 4.2.2c above.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?

No Impact. The proposed Project would not cause changes in the environment that could indirectly result in the conversion of farmland to non-agricultural uses because the Project would not be growth-inducing or otherwise hinder the future agricultural use of adjacent lands. Therefore, there would be no impact.

4.2.3 **Mitigation Measures**

Project implementation would not result in significant impacts related to agricultural or forest resources; therefore, no mitigation is required.

4.3 AIR QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

4.3.1 Environmental Setting

To protect the health and welfare of the populace, federal and state Ambient Air Quality Standards ("AAQS") have been established for the following air pollutants: ozone (O3), carbon monoxide (CO), nitrogen dioxide (NO2), sulfur dioxide (SO2), inhalable particulate matter with a diameter of 10 microns or less (PM10), fine particulate matter with a diameter of 2.5 microns or less (PM2.5), and lead. Regions that not met or attainment the relevant AAQS are required to prepare plans and implement measures that would bring the region into attainment.

The Site lies within the boundaries of the Antelope Valley Air Quality Management District ("AVAQMD"), an air district within the Mojave Desert Air Basin ("MDAB"). The USEPA has designated the AVAQMD as being in Severe-17 Nonattainment for ambient O3 concentrations, and the AVAQMD has until 2021 to achieve attainment pursuant to its attainment plan. The state has designated the AVAQMD as being in Extreme Nonattainment for O3. The Extreme Nonattainment status allows the use of undefined reductions based on the anticipated development of new control technologies or improvement of existing technologies in the Attainment Plan.

4.3.2 Project Impacts

a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

No Impact. A project is considered non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable AVAQMD rules and regulations; complies with all proposed control measures that are not yet adopted from the applicable plan(s); and is consistent with the growth forecasts in the applicable plan(s)

(or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units; increases the number of trips; and/or increases the overall vehicle miles traveled in an affected area relative to the applicable land use plan (AVAQMD 2011).

As described in Section 4.3(b) below, the Project would result in construction criteria pollutant emissions below the CEQA significance thresholds established by the AVAQMD, and therefore would not conflict with or delay implementation of any applicable attainment or maintenance plan. The Project would not conflict with the applicable land use plan because there would be negligible long-term emissions of criteria pollutants, as described in Section 4.3(b) below, and the Project would not generate new growth on the Site. Because no impacts would occur, no mitigation is required.

b) Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact With Mitigation. The Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Air quality impacts would include construction exhaust emissions generated from diesel- and gasoline-powered construction equipment, vegetation clearing, grading, construction worker commuting, and construction material deliveries. Fugitive dust emissions include particulate matter and are a potential concern because the Project is in a non-attainment area for PM-10 and PM-2.5, as well as ozone.

Table 4-1, AVAQMD Criteria Pollutant Significance Emissions Thresholds, summarizes the AVAQMD's mass emissions thresholds for short-term construction and long-term operational emissions. A Project with emission rates below these thresholds is considered to have a less than significant effect on regional air quality throughout the AVAQMD.

TABLE 4-1
AVAQMD CRITERIA POLLUTANT SIGNIFICANCE EMISSIONS THRESHOLDS

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NOx)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SOx)	25	137
Particulate Matter (PM10)	15	82
Particulate Matter (PM2.5)	15	82
Hydrogen Sulfide (H2S)	10	54
Lead (Pb)	0.6	3

Source: AVAQMD 2011

Construction

Construction of the proposed Project would result in emissions of reactive organic gases (ROGs), oxides of nitrogen (NOX), carbon monoxide (CO), sulfur oxides (SOX), PM10, and PM2.5. Emissions from construction would result from fuel combustion and exhaust from construction equipment and vehicle traffic (i.e., worker commute and delivery truck trips) and grading and site work.

CalEEMod was used to model emissions resulting from construction equipment and worker

commuting. However, a limitation of CalEEMod is the inability to model more than a single vendor delivery distance during any construction phase. For this project some construction related items such as sand and gravel deliveries and concrete trucks are anticipated to have a 10 mile one-way trip length. Solar panel delivery however, typically originates at the Long Beach harbor with a 100 mile one-way trip length. Therefore, on-road diesel truck emissions associated with vendor deliveries (solar panels, sand and gravel, and concrete trucks) were modeled separately using the California Air Resource Board EMFAC2011 emission factors. Emissions calculated from CalEEMod and EMFAC2011 were subsequently added together to determine the total project construction burden.

It is anticipated that Phase 1 and Phase 2 of the Project will be constructed at separate times. However, to assume the most conservative scenario, the air quality impacts of the Project were calculated as if the construction of Phase 1 and Phase 2 of the Project would occur concurrently. The modeled prototype construction equipment fleet and schedule represent are provided in Appendix B.

Once commenced, construction of Phase 1 and Phase 2 of the Project will each require 3-6 months to complete. Construction activities would occur between the hours of 7:00 AM and 7:00 PM Monday through Saturday. Project construction would include several phases (some of which will occur in parallel), including (1) Site preparation and surveying; (2) pile driving piers or posts and placing frames or trackers on support piers; (3) trenching and installing the DC and AC collection system, including inverter and transformer pads; (4) PV panel installation and electrical connections; and (5) Project commissioning.

The Project construction emissions were estimated using the assumptions provided by Applicant and emission factors from EMFAC2011. Project-specific input was based on the factors described above; general information known about the Project description; engineering judgment; and standard practices. Although there would be no significant impacts related to this issue, the Project would be required to comply with AVAQMD Rule 403, Fugitive Dust, as a standard condition (MM AQ-1), which requires implementation of a Dust Control Plan. The Dust Control Plan includes strategies such as minimal grading and ground disturbance, regular watering, application of soil binders, and presence of an onsite monitor. Therefore, dust-control measures are included in the emissions calculations.

Tables 4-2 through 4-4 provide the results of the emissions calculations for construction, and indicates that Project-related emissions would be less than the AVAQMD's CEQA thresholds for construction emissions. Further details regarding the calculations provided in these Tables are provided in Appendix B. Therefore, with the implementation of MM AQ-1, emissions impact from Project construction will be at less than a significant level.

TABLE 4-2
CONSTRUCTION EQUIPMENT AND CONSTRUCTION CREW COMMUTING ACTIVITY EMISSIONS, MAXIMUM DAILY EMISSIONS (POUNDS/DAY)

Maximal Emissions	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**	**CO_2e**
2015							
Unmitigated	4.68	32.25	28.39	0.04	15.09	8.45	3,882.24
Mitigated	4.68	32.25	28.39	0.04	7.10	4.35	3,882.24

Source: CalEEMod. 2013.2.2 output

Emissions from on-road truck haul for vendor deliveries and concrete trucks are shown below in Table 4-3.

TABLE 4-3 DAILY ON ROAD TRUCK EMISSIONS(POUNDS/DAY)						
	ROG	**NOx**	**CO**	**SO2**	**PM-2.5**	**CO_2(e)**
Grading						
Water Trucks	0.18	9.93	0.69	0.00	0.12	1534.35
Sand and Gravel	0.22	9.94	0.93	0.00	0.16	1429.73
Total On-Road Truck Miles Grading	**0.40**	**19.87**	**1.62**	**0.00**	**0.28**	
PV Install						
Flatbed Vendor	0.01	0.60	0.04	0.00	0.01	97.42
Concrete Trucks	0.01	0.30	0.02	0.00	0.00	48.71
Solar Panel Deliveries	0.05	2.46	0.18	0.00	0.03	404.29
Total On-Road Truck Miles PV Install	**0.07**	**3.36**	**0.24**	**0**	**0.04**	**550.42**

Source: EMFAC2011 Emissions Database http://www.arb.ca.gov/msei/categories.htm

Therefore the worst case daily emissions from both sources (EMFAC2011 and CalEEMod) are shown in Table 4-4, as follows:

TABLE 4-4 TOTAL PROJECT CONSTRUCTION EMISSIONS MAXIMUM DAILY EMISSIONS (POUNDS/DAY)							
Maximal Emissions	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**	**CO_2 (e)**
2015							
Unmitigated	5.08	52.12	30.01	0.04	15.39	8.73	6846.32
Mitigated	5.08	52.12	30.01	0.04	7.40	4.63	6846.32
AVAQMD Thresholds	137	137	548	137	82	82	-

Construction emissions would not exceed AVAQMD (Antelope Valley Air Quality Management District) significance thresholds. The only construction mitigation measure modeled was to water exposed site surfaces at least 3 times per day.

Because the AVAQMD emissions guidelines are also based on an annual tons per year basis, Table 4-5 shows a comparison of annual emissions to thresholds.

TABLE 4-5 CONSTRUCTION ACTIVITY ANNUAL EMISSIONS (TONS/YEAR)						
Activity	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**
Unmitigated	0.85	0.79	0.54	0.00	0.12	0.08
w/Fugitive Dust Mitigation	0.85	0.79	0.54	0.00	0.08	0.06
Thresholds	25	25	100	25	15	15

As with daily emissions annual construction related emissions are well below their respective significance thresholds. Therefore, emissions impact from Project construction would be less than significant.

Operations

The Project would generate negligible air emissions during operations because the Project would require minimal onsite personnel for operations and maintenance. Periodic repairs, equipment cleaning, and site monitoring would be conducted, but no permanent staff would be onsite. Solar PV panels and associated equipment would have an operating life of several decades; therefore, replacement of panels would be very infrequent. The solar panels may be cleaned up to four times annually, requiring a work crew and light trucks (five or fewer vehicles). General landscape laborers would perform vegetation maintenance to maintain ground cover and to remove unwanted vegetation. Additional water truck trips would be necessary during the first three years of operations for irrigation to establish the landscape buffer. Based on these factors, operational traffic associated with the project would be minimal.

Tables 4-6 and 4-7 provide the results of the emissions calculations for operations, and indicates that Project-related emissions would be less than the AVAQMD's CEQA thresholds for operations emissions. Further details regarding the calculations provided in Tables are provided in Appendix B.

TABLE 4-6
OPERATIONAL ACTIVITY EMISSIONS (POUNDS/DAY)

Activity	ROG	NOx	CO	SO_2	PM-10	PM-2.5	CO_2
Light Truck 50 miles							
Cleaning and Security	0.02	0.05	0.46	0.00	0.00	0.00	43.63
Heavy Truck 18 miles							
Water Truck	0.01	0.45	0.04	0.00	0.00	0.00	65.99
Total Operational Emissions	0.03	0.5	0.5	0	0	0	109.62
AVAQMD Threshold	137	137	548	137	82	82	-

TABLE 4-7
OPERATIONAL ACTIVITY EMISSIONS (TONS/YEAR)

Activity	ROG	NOx	CO	SO_2	PM-10	PM-2.5
Total Operational Emissions	0.004	0.012	0.084	0.000	0.000	0.000
AVAQMD Threshold	25	25	100	25	15	15

Operational emissions are less than their respective daily or annual thresholds. Therefore, emissions impact from Project operations would be less than significant.

Decommissioning

As required by the County, a Decommissioning Plan would be prepared and submitted for approval to the County prior to the issuance of a grading permit for the Project. It is assumed that decommissioning of the Project would require the same construction scenario (activities, equipment, duration) as the initial development; however, future air quality impacts would be less than those currently projected due to anticipated advancements in technology and a cleaner-burning construction equipment fleet mix. Therefore, with the implementation of MM AQ-1, future air quality impacts related to decommissioning would also be less than significant.

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

Less Than Significant Impact. The AVAQMD is a nonattainment area for PM10 and O3. The Project would contribute to O3 precursors and PM10 pollutants to the area during short-term construction. However, as described in Section 4.3(b) above, these emissions would be far below the AVAQMD regional thresholds.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. There is a single-family residential property located approximately 250 feet west of the northwest corner of the Site, and the second residence located approximately 600 feet west of the southwest corner of the Site. Other than the foregoing, there are no other residences, schools, nursing homes, or other sensitive receptors within approximately one (1) mile of the Site.

Exposure of sensitive receptors is addressed for two situations: CO hotspots and diesel exhaust emissions. A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically at signalized intersections. Because existing traffic volumes in the area are low and the Project would not generate significant traffic volumes, it would not create or contribute to a CO hotspot and, therefore no analysis is necessary.

Construction of the Project would result in the generation of diesel PM emissions from the use of onsite, heavy-duty, and off-road diesel equipment that is required for construction activities, and from on-road diesel equipment used to bring materials to and from the Site. The Project would utilize relatively limited diesel equipment and the construction period will last only a few months. The exposure to nearby individuals (sensitive receptors) would be much less than threshold levels and the impact would be less than significant. No mitigation would be required.

Valley Fever has been a concern in the Antelope Valley for several years. Although not a direct air pollutant, valley fever (coccidioidomycosis) fungal spore infections develop through inhalation of airborne fungal spores contained in windblown dust, and is recognized to be endemic in areas with dry, alkaline soil conditions. Grading or other soil disturbing activities have been known to release the spores into the air, thereby increasing the risk that nearby people could inhale the spores. In order to prevent exacerbating the existing windblown dust issues in the vicinity of the Site, all construction activity for the Project (including decommissioning activities) would be conducted under a rigorous Dust Control Plan prepared in accordance with AVAQMD Rule 403. As set forth in MM AQ-1, the Project Applicant shall prepare a Dust Control Plan that includes requirements for minimal grading, water application, soil

binders, and monitoring. Implementation of MM AQ-1 would prevent the Project from substantially increasing windblown dust concentrations compared to background levels and would reduce potential impacts to sensitive receptors to levels less than significant.

e) Would the project create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. The Project would not undertake activities that generate odors. Diesel exhaust fumes would be generated by equipment during construction activities, but any such odors would occur for short periods and would dissipate within a short distance from the Site. The odors would not be objectionable because of the relatively small magnitude and short duration, as well as the lack of residents adjacent to the Site. Operation of the Project would not cause any objectionable odors. Therefore, Project impacts related to odor would be less than significant, and no mitigation is necessary.

4.3.3 **Mitigation Measures**

MM AQ-1: During construction, the Project shall comply with Antelope Valley Air Quality Management District's (AVAQMD's) Rule 403, Fugitive Dust, by preparing a Dust Control Plan for controlling fugitive dust. The Dust Control Plan shall be subject to the review and approval of AVAQMD and include the following strategies:

a. Minimal Grading and Ground Disturbance: The Project would perform the minimum amount of grading and disturb the minimum amount of existing vegetation to construct the Project. Generally, graded areas shall be limited to fire access/service roads, substations, water tanks, inverter, equipment, and switchgear pads, and retention basins. Clearing and grubbing and fine grading may occur throughout the Site. The existing vegetation under the proposed solar panels will not be removed by may be mowed.

b. Construction Scheduling: Grading activities would be temporarily halted and/or Site watering would be increased during wind speeds that exceed 25 miles per hour, or when visible dust plumes have the potential to be transported off of the Site.

c. Water Application: During construction, the Project would apply water to control fugitive dust from the Site as necessary and required by the AVAQMD.

d. Soil Binders/Wood Mulch: Soil binders or wood mulch would be applied if and as necessary.

e. Monitoring: A qualified construction mitigation manager or delegate ("CMM") would be onsite during all grading activities to ensure compliance with the approved Dust Control Plan. The CMM would monitor all construction activities for visible dust plumes, and would promptly implement additional dust plume reduction measures in the event that such visible dust plumes are observed. Additional measures to be implemented, as necessary, would include increased watering, application of dust palliatives, and/or scaled back construction activities up to and including temporary work cessation.

Implementation of this mitigation measure would reduce impacts to air quality to a less than significant level.

4.4 BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife ("CDFW") or U.S. Fish and Wildlife Service ("USFWS")?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by the CDFW or USFWS?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally or state protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, and drainages) or water of the United States, as defined by Section 404 of the Clean Water Act or California Fish & Game Code Section 1600, *et. seq.*, through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5 inch in diameter measured at 4.5 feet above mean natural grade) or otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.)?	☐	☐	☐	☒
f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.56, Part 16), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, § 22.56.215), and Sensitive Environmental Resource Areas (SERAs) (L.A. County Code, Title 22, Ch. 22.44, Part 6)?	☐	☐	☐	☒

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

4.4.1 **Environmental Setting**

Phoenix Biological Consulting prepared a Biological Habitat Assessment, Focused Burrowing Owl, and Focused Rare Plant Survey for the Site, provided in Appendix C. During the 2014 survey season, the biologist at Phoenix Biological Consulting visited the Site on six occasions from January 15, 2014 to July 15, 2014. The findings of the report are summarized in this section.

The Project is located on the U.S. Geological Survey's (USGS') Alpine Butte 7.5-minute quadrangle. The topography of the Site is flat with no major distinguishing features. There is an approximately 10-foot change in elevation (0.34 percent slope) ranging from 2,365 feet at the southeast corner of the Site to 2,355 feet at the northwest corner of the Site.

The Site consists of heavy modified fallow agricultural fields. Irrigation stand pipes from previous agricultural practices remain intact along the middle half of the Site, and an abandoned earthen basin is located near the southeast corner of the Site, along with an abandoned well and other abandoned irrigation equipment near the south portion of the Site. To Applicant's knowledge, this earthen basin and irrigation well and equipment has not been used since at least 1974 (Earth Systems 2014a), prior to which the Site was used for agricultural purposes.

Soils on the Site are hard-packed with very sparse vegetation. The soil types consist of Rosamond loam (95 percent) and Rosamond loam, saline-alkali (5 percent).Rosamond loam is described as non-saline to very slightly saline, well-drained alluvium derived from granite. Rosamond loam, saline-alkali soil is described as very slightly saline to moderately saline, well-drained alluvium derived from granite. Existing vegetation is desiccated and low growing. Approximately 40-50 percent of the Site is denuded of vegetation.

No Jurisdictional Drainage

There are no streambeds or other aquatic resources identified on the Site. The eastern boundary and southeastern portion of the Site are located within 100-year flood hazard areas as determined by the Federal Emergency Management Agency (FEMA). The FEMA flood hazard is categorized as a Zone "A", meaning this area is subject to a one percent annual chance of flooding, also known as a 100-year storm event (FEMA 2008). The remainder of the Site is categorized as a Zone "X", meaning that the this area is subject to a less than one percent annual chance of flooding.

Vegetation

Vegetation on the Site consists of native annual and perennial grassland and is not considered to be special status of vegetation. There are no trees on the site or other suitable nesting locations. The vegetation community includes tumbleweed (*Salsola sp.),* less than twelve bushes of saltbush (*Atriplex spinifera*), and Mediterranean grass (*Schismus sp.).*

After a literature search and database review, and based on Site visits by Phoenix Consulting's biologists and their experience and familiarity with the Site and vicinity, it was determined that the Site is potential habitat for two rare plant species: sagebrush loeflingia *(Loeflingia squarrosa var. artemisium)* and alkali mariposa lily (*Calochortus striatus*), and a protocol presence / absence rare plant survey was

performed. Following the completion of the said protocol survey, neither of these rare plants species were found to be present on the Site.

Wildlife

Due to the historical agriculture use on the Site, lack of desert scrub, and hard-packed soils, the habitat on the Site is not suitable for most fossorial reptiles and mammals. Although the Site is undeveloped open space, a low level of wildlife diversity is present due to the singular type of habitat found across the Site. The Site was previously disturbed, and much of the original habitat was cleared. After a literature search and database review, and based on site visits by Phoenix Consulting's biologists and their experience and familiarity with the Site and vicinity, it was determined that:

- The Site is considered potential habitat for burrowing owl (*Athene cunicularia*), and a focused protocol presence / absence survey was performed. The focused protocol survey identified one inactive and unoccupied burrowing owl burrow. After completion of the CDFW protocol (Phase 3) survey, and confirmation that the burrow was in fact inactive, it was excavated by hand by a qualified biologist.

- The Site does not contain potential or suitable habitat for desert tortoise (*Gopherus agassizii*), and none were observed on the Site.

- The Site does not contain potential or suitable habitat for Mohave ground squirrel (MGS; *Xeropermophilus mohavensis*), and none were observed on the Site.

- No signs of American badger were identified on the site.

- Desert kit fox (DKF; *Vulpes macrotis arsipus*)sign and two active burrows were identified on the Site. However, no pups were identified on the Site. The desert kit fox is not listed as a threatened or endangered species. However, the desert kit fox is listed as a Planning Species under the draft Desert Renewable Energy Conservation Plan ("DRECP") and is protected as a fur-bearing mammal under California Code of Regulations, Title 14.

- Although CNDDB records indicate the presence of Swainson's hawk nests (*Buteo swainsoni*) within a five-mile radius of the Site within the last five years, the Site is heavily-disturbed, void of any trees or other nesting locations, and contains poor foraging habitat for Swainson's hawk and other raptors. Therefore, the Site does not contain nesting habitat for Swainson's hawk, and is unlikely to contain foraging habitat for Swainson's hawk. Three Swainson's hawk occurrences were identified in the CNDDB within a five mile radius of the Site within the last five years. Two occurrences (CNDDB #2415 and #1777) were located more than three miles from the Site, and were confirmed present as of January 15, 2014. Nest occurrence CNDDB #2416 was approximately 1,100 feet east of the south half of the Site and was not present as of January 15, 2014 or July 15,2014. Records for CNDDB #2416 indicate that the chick and adult female associated with this nest died in July 2012 from natural causes.

4.4.2 Project Impacts

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife ("CDFW") or U.S. Fish and Wildlife Service ("USFWS")?

Less Than Significant With Mitigation.

Special Status Plant Species

After a literature search and database review, and based on site visits by Phoenix Consulting's biologists and their experience and familiarity with the Site and vicinity, it was determined that the Site is potential habitat for two rare plant species: sagebrush loeflingia *(Loeflingia squarrosa var. artemisium)* and alkali mariposa lily (*Calochortus striatus*). A protocol presence / absence rare plant survey was performed for these plant species, and neither were found to be present on the Site. No mitigation is required.

Special Status Wildlife Species

Burrowing Owl

After a literature search and database review, and based on Site visits by Phoenix Consulting's biologists and their experience and familiarity with the Site and vicinity, it was determined that the Site is considered potential habitat for burrowing owl (*Athene cunicularia*), and a focused protocol presence / absence survey was performed in accordance with CDFW's Staff Report for Burrowing Owl Mitigation. The focused protocol survey identified one inactive and unoccupied burrowing owl burrow. Judging by the amount of whitewash, it appears that a migrant burrowing owl utilized the burrow for 1-2 months and then left the area. During successive site visits, Phoenix Consulting observed cobwebs and natural debris covering the entrance of the burrow which implies the burrow is inactive. Additionally, the soils at the burrow mound and within the apron of the burrow have a hard-crust top-layer that is indicative of inactivity. Typically, active burrows display soft, friable soils with noticeable tracks at the burrow entrance and mound that indicate activity. No tracks were observed, and the soils were undisturbed. Juvenile owls were not detected during any of the survey efforts. After completion of the CDFW protocol (Phase 3) survey, and confirmation that the burrow was in fact inactive and unoccupied, it was excavated by hand by a qualified biologist.

As described above, the Site is low quality for burrowing owl habitat. However, Applicant has agreed to pay an in-lieu fee to a non-profit organization in support of a project that assists in the preservation of burrowing owl habitat, with the amount of such in-lieu fee determined based on an assessment of the benefit of the in-lieu project to the preservation of the burrowing owl habitat and the loss of the potential burrowing owl habitat on the Site, which is low quality habitat for burrowing owl. With the incorporation of MM BIO-1 and MM BIO-3 through MM BIO-7, the impact of the Project on burrowing owl will be reduced to a less than significant level.

Desert Tortoise

The Site does not contain potential or suitable habitat for desert tortoise (*Gopherus agassizii*), and no desert tortoise have been observed on the Site. Even though the Site does not contain potential or suitable habitat for desert tortoise and the presence of desert tortoise on the Site is very unlikely to occur, MM BIO-03 through MM BIO-06 includes education and protections for desert tortoise during the construction of the Project.

Mohave Ground Squirrel

The Site does not contain potential or suitable habitat for Mohave ground squirrel, and no MGS have been observed on the Site. No mitigation is required.

Desert Kit Fox

Two active desert kit fox burrows were observed on site. Two marking stations were also detected on the Site. No desert kit fox pups were observed on the Site, or other signs that these burrows are natal dens. DKF is not a threatened or endangered species, although it is listed as a Planning Species under the draft DRECP, and is protected as a fur-bearing mammal under the California Code of Regulations, Title 14. With the incorporation of MM BIO-1, the impact of the Project on DKF will be reduced to a less than significant level.

Swainson's Hawk

The Site is heavily-disturbed, void of any trees or other nesting locations, and contains low quality foraging habitat for Swainson's hawk and other raptors. No Swainson's hawk or other sensitive raptors have been observed on the Site.

CNDDB records indicate the presence of three Swainson's hawk nests within a five-mile radius of the Site within the last five years. Two occurrences (CNDDB #2415 and #1777) were located more than three miles from the Site, near Avenue J and 110th Street East. The third occurrence, nest CNDDB #2416, was located approximately 1,100 feet east of the south half of the Site and was not present as of January 15, 2014 or July 15,2014. Records for CNDDB #2416 indicate that the chick and adult female associated with this nest died in July 2012 from natural causes.

While Swainson's hawk is present in the area, in this particular instance, the Project would not result in a "take" of Swainson's hawks, as defined by Section 86 of the California Fish and Game Code. Suitable nesting habitat is not available on the Site, and the Site contains poor foraging habitat. The Site shows evidence of heavy scarring from historical agricultural use, as well occasional tilling and or other type of linear mechanical disturbance to the soils. Existing vegetation is desiccated and low growing. Approximately 40-50 percent of the Site is denuded of vegetation. Consequently, small mammal presence (and indicators of small mammal presence) were extremely limited. As a result, small mammal prey, a primary food source, are largely unavailable on the Site.

MM BIO-2 will be incorporated into the Project to mitigate the impact of the Project on Swainson's hawk, particularly with respect to the nest location previously observed in CNDDB #2416. With the occurrence of MM BIO-2, the impact of the Project on Swainson's hawk will be reduced to a less than significant level.

Other Species

The Site contains no trees and no other candidate, sensitive, or special status species have been observed on the Site. No mitigation is required.

b) Would the project have a substantial adverse effect on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS?

No Impact. The Site does not contain riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands, or other sensitive natural communities. As mentioned above, there are no streambeds, wetlands, waters, or other aquatic resources identified on the Site. Therefore, there would be

no impact.

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

No Impact. See discussion in Section 4.4.2b. There would be no impact.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact. The Site is currently open for wildlife passage, other than minimal restrictions of the roads bounding the north, south, and east of the Site. Project implementation would include the installation of chain-link fencing around the perimeter of the Site. The land around the Site is vacant, consisting of several miles of opens spaces without substantial residential or commercial development. The Site itself offers no greater value for wildlife movement relative to the surrounding land in the vicinity. There is no indication of concentrated movement through the Site or adjacent lands. The Project would not affect regional wildlife movement or interfere substantially with the movement of any native resident in areas surrounding the Site, nor would it impede the use of native wildlife nursery sites. Impacts would be less than significant, and no mitigation is required.

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

No Impact. There are no oak trees, Joshua trees, or other trees on the Site. Therefore, there would be no impact.

f) Would the project conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.56, Part 16), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, § 22.56.215), and Sensitive Environmental Resource Areas (SERAs) (L.A. County Code, Title 22, Ch. 22.44, Part 6)?

No Impact. There are no oak trees, Joshua trees, or other trees on the Site. The Project does not contain or conflict with any SEAs, Wildflower Reserve Areas, or SERAs. The Project would not conflict with any local policies or ordinances protecting biological resources. The Site is located within the West Mojave Plan, which is a Habitat Conservation Plan ("HCP") that encompasses most of the Antelope Valley and aims to conserve and protect habitat for desert tortoise, Mohave ground squirrel, and over 100 other special status species throughout a 9.3-million-acre planning area (BLM 2006). The Site was not included in one of the proposed conservation areas and is not suitable habitat for desert tortoise or Mohave ground squirrel. Further, as the HCP has not yet been adopted, there would be no impact to, nor would the Project conflict with, an adopted HCP. Therefore, there would be no impact.

g) Would the project conflict with the provisions of an adopted state, regional or local

habitat conservation plan?

No Impact. See discussion in Section 4.4.2f above. Therefore, there would be no impact.

4.4.3 **Mitigation Measures**

MM BIO-1: Pre-construction surveys:

a. A pre-construction burrowing owl survey should be conducted no less than 14 days prior to the initiation of ground disturbance activities and a final survey should also be conducted no earlier than 24 hours prior to ground disturbance. If no burrowing owls are detected during the pre-construction survey, ground disturbance activities can proceed without further consideration of this species. If burrowing owls are detected during the take avoidance survey, additional avoidance and minimization measures would then be required, under the guidance of the CDFW, provided that mitigation acreage acquired for Swainson's hawk (if required) that is similar to the relatively low quality of the site will also be sufficient to replace lost burrowing owl habitat.

b. Conduct a 30-day desert kit fox and American badger pre-construction survey prior to ground disturbance to identify any burrows on the Site. If any burrows are identified and determined to be inactive, a qualified biologist shall excavate such burrows by hand. If any burrows are actively being used as natal dens, a 250-foot buffer around such burrows shall be established until such burrows are no longer being used as natal dens. If any desert kit burrows are actively being used, but not as natal dens, the desert kit fox may be encouraged to depart the site, provided that no "take" may occur, and once such burrows are inactive, they can be excavated to prevent further occupancy.

c. To comply with the Migratory Bird Treaty Act (MBTA), if any ground disturbance is anticipated during the nesting bird season (February-August) the project proponent will initiate a breeding/nesting bird survey to ensure no nesting birds are impacted. If a nesting bird is detected, the area will be avoided and a 50-meter buffer will be installed until the nesting birds have fledged and have been observed to be foraging independently.

d. A CNDDB form should be submitted for any burrowing owl and any other sensitive species encountered in order to provide the resource agency personnel and biological consultants with a better understanding of sensitive species distribution in this area.

MM BIO-02: Conduct a 30-day pre-construction survey of the Swainson's hawk nest location identified in CNDDB #2416. If no nest is identified, or if a nest is identified but subsequently determined to be unsuccessful, construction activities can proceed without further consideration of this species. If a Swainson's hawk nest is identified and successfully established, all construction activities shall be postponed until CDFW is consulted. If any mitigation land is required for Swainson's hawk, mitigation land for Phase 1 of the Project shall be obtained prior to ground disturbance for Phase 1 of the Project, and mitigation land for Phase 2 of the Project shall be obtained prior to ground disturbance for Phase 2 of the Project.

MM BIO-03: Construction workers should be provided with an information pamphlet on burrowing owl biology and (although unlikely to occur on the site) general desert tortoise biology, how to recognize and avoid burrowing owl and desert tortoises, authorized speed limits while working within the site, trash abatement and checking under parked vehicles and equipment prior to moving. If a burrowing owl or

desert tortoise is detected on site, all construction activity would be suspended and the resource agencies notified to determine appropriate measures.

MM BIO-04: Provide a trash abatement program with sealed trash containers on site to prevent unwanted tortoise predators such as ravens and coyotes.

MM BIO-05: Vehicular speed limits of 15 miles per hour on all project related access roads and work areas.

MM BIO-06: Utilize existing roads, whenever possible, to minimize disturbance to potential habitat. Implementation of these mitigation measures would reduce impacts to biological resources to a less than significant level.

MM BIO-07: Applicant has agreed to pay an in-lieu fee to a non-profit organization in support of a project that assists in the preservation of burrowing owl habitat (the "In-Lieu Project"). The amount of the in-lieu fee shall be acceptable to the County and determined based on an assessment of the benefit of the In-Lieu Project to the preservation of the burrowing owl habitat and the loss of the potential burrowing owl habitat on the Site, which is acknowledged to be low quality habitat for burrowing owl. As an example, an In-Lieu Project that provides fencing around a conservation area that contains high-quality habitat for burrowing owl may be the type of In-Lieu Project acceptable to the County. The in-lieu payment shall be made prior to ground disturbance for Phase 1 of the Project, and such payment shall satisfy this mitigation measure for both Phase 1 and Phase 2 of the Project.

4.5 CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

4.5.1 **Environmental Setting**

BCR Consulting, LLC prepared a Cultural Resource Assessment (March 2014) for the Project, a copy of which is provided in Appendix D. In addition to the Site, the Cultural Resource Assessment covers a 30-meter buffer around the SCE distribution poles aligning the north shoulder of Avenue F and the east shoulder of 90th Street East. The findings of the report are summarized in this section.

BCR Consulting performed a cultural resources records search, additional research, intensive-level pedestrian field survey, and vertebrate paleontological resources assessment for the Project. The records search revealed that five previous cultural resources studies have taken place, and seven cultural resources (all prehistoric isolates) have been recorded, within one mile of the Site. Of the five previous studies, three have previously assessed portions of the Site, and no cultural resources have been previously recorded within the boundaries of the Site.

BCR Consulting undertook a Native American consultation with the Native American Heritage Commission ("NAHC") requesting a Sacred Lands File Search and Native American contact list. A response was received from the NAHC on March 5, 2014 stating that a records search of the NAHC Sacred Lands inventory fails to indicate the presence of Native American cultural resources on the Site. In addition, the NAHC provided a list of Native American groups and individuals that may have knowledge of the religious and/or cultural significance of resources that may be on and near the Site. Each of these groups and individuals were mailed informational letters on March 14, 2014, describing the Project and requesting any information regarding resources that may exist on or near the Site. No response was received from any of these groups or individuals.

A paleontological resources records search was requested from the Los Angeles County Natural History Museum ("LACM"). A response was received from Samuel McLeod, Vertebrate Paleontologist, on March 26, 2014 stating that no vertebrate fossil localities are recorded on the Site, but there are nearby localities in some of the same sedimentary units that occur in the Site.

During the pedestrian field survey of the Site, BCR Consulting archaeologists identified one historic-period resource, namely a retention basin located at the southeast corner of the Site, associated irrigation features, and two nearby glass scatters containing sun-colored amethyst glass mixed with other historic-period and modern glass. BCR Consulting designated this resource as AVS1401-H-1. This resource is not recommended eligible for the California Register of Historical Resources (California Register), and as such is not recommended a "historical resource" under CEQA.

BCR Consulting recommends that no additional cultural resources work or monitoring is necessary for any Project activities.

4.5.2 **Project Impacts**

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less Than Significant With Mitigation. For a historical resource (as defined in California Public Resource Code Section 15064.5 and associated regulations) to be eligible for inclusion on the California Register, one or more of the following criteria must be met: (1) it must be associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.; (2) it must be associated with the lives of persons important to local, California, or U.S. history; (3) it must embody the distinctive characteristics of a type, period, region, or method of construction, represent the work of a master, or possesses high artistic values; and/or (4) it must yield, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

BCR Consulting archaeologists identified one historic-period retention basin, associated irrigation features, and two nearby glass scatters containing sun-colored amethyst glass mixed with other historic-period and modern glass, all designated by BCR Consulting as AVS1401-H-1. Like many properties in the vicinity of the Site, this historic-period water retention basin, associated irrigation features, and mixed historic-period and modern glass scatters represent an early to mid-20th century agricultural development. Formerly associated buildings have been removed and the water retention basin and associated irrigation features no longer function. Also, the glass scatters contain modern and historic period glass. As a result AVS1401-H-1 has lost integrity of setting, design, materials, workmanship, feeling, and association.

BCR Consulting determined that AVS1401-H-1 is not eligible for inclusion on the California Register for the following reasons: (1) AVS1401-H-1 represents farm development common throughout the region during the period of significance (early to mid-20th century) and as such is not associated with any events that have made a significant contribution to the broad patterns of local or regional history. (2) Extensive research has failed to specifically associate the resource with any individuals who have been notable in local, state, or national history. (3) As a common water retention/irrigation feature accompanied by historic-period and modern glass scatters, the resource does not contain any elements that embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual or possess high artistic values. (4) Extensive research has exhausted the resource's data potential, and as such the resource has not and is not likely to yield information important in prehistory or history. Since AVS1401-H-1 is not eligible for the California Register of Historical Resources, it is not a "historical resource" under CEQA.

While no historical resources were found on the Site, there is a possibility that historical materials could be uncovered during necessary subsurface excavations for the construction of the proposed Project. Therefore, implementation of MM CUL-1, which describes procedures to be followed in the event that

historical resources are discovered, would reduce this potentially significant impact to a less than significant level.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant With Mitigation. As previously mentioned, an NAHC Search of the Sacred Lands File did not indicate the presence of Native American cultural resources on the Site. Although the likelihood of encountering archaeological resources on the Site is considered low, this impact is potentially significant. Therefore, implementation of MM CUL-1, which describes procedures to be followed in the event that cultural resources are discovered, would reduce this potentially significant impact to a less than significant level.

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources?

Less Than Significant With Mitigation. As previously mentioned, LACM reports that there are no known fossil localities within the Site or nearby areas. Although the possibility of discovering fossil resources is considered low, it is possible that significant vertebrate and invertebrate fossils could be encountered during subsurface disturbance. This could result in a significant impact to unique paleontological resources. Therefore, implementation of MM CUL-1, which describes procedures to be followed in the event that paleontological resources are discovered, would reduce this potentially significant impact to a less than significant level.

d) Would the project disturb any human resources, including those interred outside of formal cemeteries?

Less Than Significant Impact With Mitigation. There is no indication that human remains are present on the Site. Project-related earth disturbance has the potential to unearth previously undiscovered remains, resulting in a potentially significant impact. However, implementation of MM CUL-02 would ensure that impacts are reduced to a less than significant level.

4.5.3 **Mitigation Measures**

MM CUL-1: In the unlikely event that historical, archaeological, or paleontological resources are identified on the Site during ground-disturbing activities, a qualified archaeologist or paleontologist (as appropriate) will be assess the significance of any find and will have the authority to stop or divert the construction excavation as necessary. Work may proceed in other areas of the Site. A plan to mitigate any adverse impacts will be prepared and undertaken, and work may proceed on the Site once evaluation of the find is complete.

MM CUL-2: In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found during ground-disturbing activities, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). Such descendants shall complete their inspection within 48 hours of being granted access to the Site.

Implementation of these mitigation measures would reduce impacts to cultural resources to a less than significant level.

4.6 ENERGY	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with Los Angeles County Green Building Ordinance (L.A. County Code Title 22, Ch. 22.52, Part 20 and Title 21, § 21.24.440) or Drought Tolerant Landscaping Ordinance (L.A. County Code, Title 21, § 21.24.430 and Title 22, Ch. 22.52, Part 21)?	☐	☐	☒	☐
b) Involve the inefficient use of energy resources (see Appendix F of the CEQA Guidelines)?	☐	☐	☒	☐

4.6.1 Environmental Setting

The Project proposes to increase electricity generated from renewable technology by generating up to 7.45 MWac of electrical energy through series of PV panel arrays that convert sunlight into electrical energy without the use of heat transfer fluid or cooling water. The Project would deliver the electrical output to the existing regional distribution circuits near the Site.

California policy encourages the development of renewable energy resources to reduce reliance on fossil fuels; to diversify energy portfolios; to reduce greenhouse gas emissions; and to assist creation of "green" jobs within the state of California. In 2002, the California Senate adopted Senate Bill (SB) 1078 (later accelerated by SB 107 in 2006), which established California's Renewables Portfolio Standard ("RPS"). The RPS requires electric service providers to increase the use of eligible renewable energy resources by at least one percent of their retail sales annually until they reach 20 percent by 2010. Executive Orders S-14-08 (issued on November 17, 2008) and S-21-09 (issued on September 15, 2009) establish a further goal of 33 percent renewable energy use by 2020. The California Public Utilities Commission and the California Energy Commission are jointly responsible for implementing this program.

The Project qualifies as an eligible renewable energy resource as defined by the California Public Resources Code and will assist an electric service provider, namely SCE, in meeting its RPS requirements.

4.6.2 Project Impacts

a) Would the project conflict with Los Angeles County Green Building Ordinance (L.A. County Code Title 22, Ch. 22.52, Part 20 and Title 21, § 21.24.440) or Drought Tolerant Landscaping Ordinance (L.A. County Code, Title 21, § 21.24.430 and Title 22, Ch. 22.52, Part 21)?

Less Than Significant Impact. The Los Angeles County Code (Title 21, Section 21.24.440) requires compliance with applicable requirements of Title 22 (specifically, Chapter 22.52, Part 20) for green building. These standards are applicable to construction of buildings and are designed to reduce energy consumption; save water and other natural resources; and divert waste from landfills when new buildings are constructed. The Project is for renewable energy electricity generation and does not include the construction of habitable buildings. Therefore, the Title 22 Green Building standards are not

applicable. This Project has been designed to minimize disturbed areas by keeping grading on the Site to a minimum. The Project will incorporate landscaping with drought-tolerant vegetation approved by the County along portions of the perimeter of the Site. Irrigation via water trucks would be conducted until the landscaping is established, approximately three years. Therefore, the Project would not conflict with these two ordinances and impacts would be less than significant.

b) Would the project involve the inefficient use of energy resources (see Appendix F of the CEQA Guidelines)?

Less Than Significant Impact. The Project would generate renewable energy, decreasing California's reliance on fossil fuel energy and increasing its reliance on renewable energy. Both of these items are identified in Attachment F of the CEQA Guidelines as ways to accomplish the CEQA energy conservation goal.

Non-renewable resources, including fossil fuels (i.e., energy), would be used in the construction of the proposed Project. The daily vehicle trips during construction would generally include construction worker trips and truck trips for equipment deliveries and water for dust suppression. Construction of the proposed solar facility is not unusually wasteful or excessive in terms of construction materials or fossil fuel use due to the lack of demolition and other waste products generated by typical construction projects (e.g. discarded woody debris). In addition, construction of these types of facilities is not energy-intensive since minimal grading is required for construction, the facilities would be unmanned and would not generate significant operational vehicle trips, and minimal use of water is required for operations.

4.6.3 **Mitigation Measures**

Project implementation would not result in significant impacts related to energy. Therefore, no mitigation is required.

4.7 GEOLOGY AND SOILS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Conflict with Hillside Management Area Ordinance (L.A. County Code, Title 22, Section 22.56.215) or hillside design standards in the County General Plan Conservation and Open Space Element?	☐	☐	☐	☒

4.7.1 Environmental Setting

Earth Systems prepared a Geotechnical Engineering Report (May 2014) for the Project, a copy of which is provided in Appendix E. The findings of the report are summarized in this section.

The soils encountered in the exploratory borings on the Site are alluvial deposits, consisting of interbedded layers of silty sands, clayey sands, relatively clean sands, sandy silts and sandy and silty clays (SM, SC, SP, ML and CL soil types based upon the Unified Soil Classification System). Some of the upper two to three feet of the native site soils were found to be relatively loose/soft, non-uniform, and of low relative compaction. The underlying coarse-grained soils (SM and SP soil types) encountered below a depth of approximately three feet were found to be medium dense to dense. The underlying fine-grained soils (ML and CL soil types) encountered below a depth of approximately three feet were found to be medium stiff to stiff. Based upon the consolidation test results, some of the native Site soils within the top two to three feet are anticipated to demonstrate a slight to moderate tendency to hydrocompress (experience a loss in volume upon wetting, with or without additional loading; commonly referred to as "collapsing soil"). The soils tested below a depth of approximately three feet, through the depths tested, were found to demonstrate a negligible to slight tendency to hydrocompress.

Free groundwater or perched water was not encountered in the borings at the time of drilling. Static aquifer groundwater levels in the vicinity of the site are estimated to be deeper than 50 feet below the existing surface.

4.7.2 **Project Impacts**

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i)Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. There are no known active faults traversing the Site, and the Site is not located within the Alquist-Priolo Earthquake Fault Zone or any other established fault zones. The San Andreas Fault is the nearest earthquake fault to the Site, and is located approximately 15 miles southwest of the Site. Thus, the Project would not be exposed to fault rupture hazards along the San Andreas Fault. No mitigation is required.

ii) strong seismic ground shaking?

Less Than Significant Impact. The primary seismic hazard for the Site, as with most of the Southern California region, is the susceptibility to ground shaking due to the presence of major active or potentially active faults in the region. Per County requirements, the Project would be designed and constructed in compliance with the County building and seismic codes in effect at the time the grading plans are approved to ensure the structural integrity of the Project improvements against seismic shaking. Additionally, the Project will include the geotechnical recommendations provided by the Project's geotechnical engineers. Therefore, impacts related to seismic ground shaking would be less than significant.

iii) seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Potential secondary seismic effects of strong seismic ground shaking include liquefaction, lateral spreading, and seismically induced settlement/differential compaction. Liquefaction is defined as a loss of strength of saturated, cohesionless soil generally due to seismic shaking. Soil types most susceptible to liquefaction are loose, saturated silty to clean fine sands.

Based on the Site exploration, the shallow alluvial soils on the Site consist of sands that are generally in a medium dense to dense state. Static groundwater depths on this Site are greater than 50 feet. Where groundwater levels are greater than 50 feet deep, it is expected that the surface damage from deeper liquefaction will not occur. Therefore, since the static groundwater level under the Site is greater than 50 feet deep and the foundation soils are relatively dense in nature, the potential for hazards from liquefaction on this Site should be negligible. Therefore, impacts would be less than significant and no mitigation is required.

Seismically induced settlement consists of dry dynamic settlement (above groundwater) and liquefaction-induced settlement (below groundwater). During a strong seismic event, seismically induced settlement can occur within loose to moderately dense sandy soil due to reduction in volume during, and shortly after, an earthquake event. Seismically-induced settlement may occur within the onsite younger alluvial soils. Additional settlement may occur due to seismic shaking, but will most likely occur on an areal basis. Therefore, impacts would be less than significant and no mitigation is required.

iv) landslides?

No Impact. No natural or artificial slopes exist on or near the Site. Therefore, the risk of seismically induced landslides is not applicable, and no impact would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The potential impacts of soil erosion on the Site would be minimized through a Stormwater Pollution Prevention Plan (SWPPP) in compliance with the requirements of the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. The SWPPP would prescribe temporary Best Management Practices (BMPs) to control wind and water erosion during and shortly after construction of the Project. The impact on soil erosion is less than significant, and no further analysis is warranted.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. The Geotechnical Engineering Report for the Project indicates that there are no zones of potentially liquefiable soil on the Site and the exposed soils have a "very low" expansion potential. In addition, the report does not identify hazards related to landslide, lateral spreading, subsidence, or soil collapse. Structural design and construction of proposed improvements would need to implement the recommendations in the Geotechnical Engineering Report to comply with applicable regulatory requirements and to ensure that geologic hazards remain less than significant.

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

Less Than Significant Impact. See discussion in Section 4.7.2c above.

e) Would the project have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater?

No Impact. The Project would not include toilets, kitchens, or bathrooms that would generate

wastewater requiring disposal into the sewer system or a septic tank. Thus, the onsite soils would not pose limitations to septic tanks or alternative waste water disposal systems since none are proposed as part of the Project. Therefore, no impact would occur.

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

No Impact. The Site is flat, and is not in or near any hillside area and is not affected by Hillside Management Areas. Therefore, no impact would occur.

4.7.3 **Mitigation Measures**

Project implementation would not result in significant impacts related to geology and soils. Therefore, no mitigation is required.

4.8 GREENHOUSE GAS EMISSIONS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

4.8.1 Environmental Setting

Greenhouse gasses ("GHGs"), as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential ("GWP"). The GWP of each GHG is multiplied by the prevalence of that gas to produce CO2e. AB 32, the California Global Warming Solutions Act of 2006, recognizes that California is the source of substantial amounts of GHG emissions. In order to avert these consequences, AB 32 establishes a State goal of reducing GHG emissions to 1990 levels by the year 2020, which is a reduction of approximately 16 percent from forecasted emission levels, with further reductions to follow (CARB 2012).

The Site is currently undeveloped and does not directly generate GHG emissions due to the absence of onsite water use, energy use, and vehicle trip generation. The AVAQMD's CEQA and Federal Conformity Guidelines (2011) established the AVAQMD GHG Significance Threshold of 100,000 tons of CO2e per year for long-term operational and short-term construction emissions. A project with emissions rates below this threshold is considered to have a less than significant effect on climate change.

4.8.2 Project Impacts

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Pursuant to Section 15064.4 of the State CEQA Guidelines, the treatment of GHG emissions follows a process of quantification of Project-related GHG emissions, determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. Using the CalEEMod and EMFAC2011 computer models, it was determined that construction activities for the Project would generate approximately 63 metric tons CO2e (see Appendix B). This amount is below the AVAQMD threshold of 100,000 tons CO2e/yr and would be less than significant.

Operational-period emissions would be produced through vehicle travel for panel cleaning, maintenance, and security, with estimated emissions of approximately 3.6 metric tons of CO2e per year(operational emissions plus construction emissions amortized over 30 years). However, during its operational life, the Project would fully offset its operational GHG emissions. The offset effect of solar power results from the displacement of electrical power production that would otherwise occur at fossil-fueled power plants that necessarily generate GHGs alongside electricity. As designed, the 7.45 MWac

rated plant, with a typical 20 percent solar capacity factor, would annually produce about 13,000 MWhrs of electrical energy. The generation of 1 MWhr of electricity in California produces an average of 0.331 MT of CO2e. The offset created by 13,000 MWhr per year from a solar power facility would be about 4,300 metric tons of CO2e. Subtracting the Project's operational GHG emissions yields a net GHG benefit of over 4,296.4 metric tons of CO2e per year. Therefore, the Project would reduce regional GHG emissions during operations, and GHG impacts are considered beneficial.

A Decommissioning Plan for the Project would be prepared and submitted to the County for approval prior to the issuance of a grading permit. This Decommissioning Plan would ensure that the Site is returned to a beneficial use upon termination of both Phases of the Project. While the Project may be decommissioned after the 20-year life of the power purchase agreement for each Phase of the Project, it is more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. It is assumed that decommissioning of the Site would require the same construction scenario (activities, equipment, duration) as the initial development of the Site; however, future GHG impacts would be less than those currently projected due to anticipated advancements in technology and a cleaner-burning construction equipment fleet mix. Therefore, future air quality impacts related to decommissioning would also be less than significant.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The Countywide Energy and Environmental Policy, adopted by the County Board of Supervisors on January 16, 2007 (County Policy), sets forth guidelines and programs for the development and enhancement of energy conservation and environmental programs within County departments. This County Policy consists of the following programs: (a) Energy and Water Efficiency Program, (b) Environmental Stewardship Program, (c) Public Outreach and Education Program, and (d) Sustainable Design Program.

Under the Energy and Water Efficiency Program, the County has set forth the goal of reducing energy (electricity and natural gas) and water consumption in County facilities by twenty percent (20%) by the year 2015. Under the Environmental Stewardship Program, the County seeks to reduce its environmental footprint, including a reduction in greenhouse gases produced through the direct and indirect operations (Los Angeles County 2013).

By providing a new source of renewable energy, the Project would reduce air pollution and GHG emissions generated by the burning of fossil fuels and/or the use of water at central power generation plants, and thus, would be consistent with the objectives and programs of the Countywide Energy and Environmental Policy.

The overall goal of AB 32 is to reduce GHG emissions. As demonstrated above, the proposed Project would result in a net reduction of GHG emissions, consistent with AB 32. Therefore, the Project would not conflict with the applicable plans or policies to reduce GHG emissions and impacts would be less than significant.

4.8.3 Mitigation Measures

Project implementation would not result in significant impacts related to greenhouse gases. Therefore, no mitigation is required.

4.9 HAZARDS/HAZARDOUS MATERIALS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving fires, because the Project is located?				
i) with a Very High Fire Hazard Severity Zones?	☐	☐	☐	☒
ii) within a high fire hazard area with inadequate access?	☐	☐	☒	☐
iii) within an area with inadequate water and pressure to meet fire flow standards?	☐	☐	☒	☐
iv) within proximity to land uses that have the potential for dangerous fire hazard?	☐	☐	☒	☐

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

4.9.1 **Environmental Setting**

Earth Systems prepared a Phase I Environmental Site Assessment ("ESA", April 2014) for the Site describing the past and current hazardous material on and near the Site, a copy of which is provided in Appendix F. The findings of the report are summarized in this section.

The Site is vacant and does not utilize hazardous materials or generate hazardous wastes. There are no known hazardous materials, petroleum products, hazardous wastes, or petroleum wastes on the Site. Obvious signs of soil contamination from hazardous materials and petroleum products were not observed on the Site during site reconnaissance performed as part of the ESA.

No open hazardous materials release sites were identified within the ASTM-specified search distances of the Site. The one identified hazardous materials release involved soil contaminated with gasoline approximately 0.5-mile east of the Site. This matter received regulatory agency closure in 1997, and is not considered a recognized environmental condition for the Site.

The flight line of Edwards Air Force Base is located approximately 11 miles northeast of the Site, and the Project does not meet the criteria for notice to the Federal Aviation Administration under 14 Code of Federal Regulations Section 77.13. The Palmdale Regional Airport is located approximately 10 miles southwest of the Site, and General William J. Fox Airfield is located approximately 13 miles east of the Site. The Project is located outside of the area of influence for each of these airports (ALUC 2004)

The Site is not located in State or Local Responsibility areas designated as Very High or High Fire Hazard Severity Zones (CAL FIRE 2007).

4.9.2 **Project Impacts**

a) Would the project create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?

Less Than Significant Impact. The Project would not utilize, store, or produce hazardous materials that would pose a significant hazard to the public. Hazardous waste would not be generated on Site. Construction activities associated with the Project would involve the use of common hazardous materials for construction, such as chemical and petroleum-related products for heavy equipment and machinery. Other common hazardous materials that may be used in construction activities include paints, sealants, solvents, detergents, glues, acids, lime, plaster, grease, oils, cleaning agents, and heavy metals from equipment. Compliance with existing hazardous material regulations would ensure that the use of common hazardous materials during construction activities would be less than significant.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment?

Less Than Significant With Mitigation. The ESA reveals no evidence of recognized hazardous materials or conditions on Site, except for its former use as agricultural land on or before 1974. Persistent fertilizers, pesticides, and arsenic may have been applied to the Site during this activity. It is not

known if any residual chemicals remain in the soil; provided, however, that these compounds tend to biodegrade over time, and residual concentrations of these chemicals are rarely discovered at levels requiring regulatory action. MM HAZ-1 requires the testing of surface soils for the presence of these agricultural chemicals, and if found, the appropriate remediation and removal of the contaminated soil. MM HAZ-1 would reduce this potentially significant impact to a less than significant level.

The PV panels will require cleaning zero to four times per year to remove dust buildup, grime, bird droppings, and/or soot, typically (but not exclusively) with demineralized water. Cleaning water would be allowed to infiltrate into the ground or evaporate as it drips off the PV modules. Cleaning water will not contain any toxic chemicals.

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

Less Than Significant Impact. Other than two residences located west of the northern and southern boundaries of the Site, there are no sensitive land uses within a quarter-mile of the Site. As discussed in Section 4.9.2(a) above, the Project would not lead to hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste, other than limited use of common hazardous materials during construction in accordance with applicable regulations. Therefore, impacts to nearby sensitive land uses would be less than significant.

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

No Impact. The Site is not included on a list of hazardous materials sites compiled pursuant to Section 65962.5 of the California Government Code. The Project would not create a significant hazard to the public or the environment. Therefore, the Project would result in no impact associated with hazardous materials sites.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or people residing or working in the project area?

No Impact. The nearest airports to the site are Edwards Air Force Base, the Palmdale Regional Airport, and General William J. Fox Airfield, each of which is located at least 10 miles from the Site. The Project would result in no safety hazards for people residing or working in the vicinity of the Site as a result of proximity to an airport. There is no impact and no further analysis is warranted.

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

No Impact. See discussion in 4.9.2e above.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. There are no known adopted Los Angeles County emergency response or evacuation plans in place for the area surrounding the Site. The Project would not result in any closures of existing roadways that might have an effect on emergency response or evacuation plans in the vicinity of the Site.

Accordingly, implementation of the Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. No mitigation is required.

h) Would the project expose people or structures to a significant risk of loss, injury or death involving fires, because the project is located: i) within a Very High Fire Hazard Severity Zones (Zone 4)?

No Impact. The Site is not in or near areas designated as a Very High or High Fire Hazard Severity Zone (CAL FIRE 2007). Therefore, no impact will occur.

h) Would the project expose people or structures to a significant risk of loss, injury or death involving fires, because the project is located:

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

Less Than Significant Impact. The Site and surrounding area primarily consists of open space with annual grasslands, which remain dry for most of the year and have the potential to burn. The introduction of general human activity, including maintenance workers or the driving of combustion engine vehicles, increases the potential risk for dangerous fire hazard. Construction activities, such as welding during installation of PV panels and support structures, could also potentially result in the combustion of native materials.

As discussed in Section 4.15, Public Services, the Project would be required to comply with Los Angeles County Code's Title 32, Fire Code, which includes various requirements for fire safety and prevention. In compliance with Title 32, vegetation be trimmed to a maximum height of six inches within the Site boundaries and cleared to mineral soil for a distance of 50 feet around all electrical transformer vaults or structures as part of regular O&M activities. As the Project is located in an undeveloped area, there are no fire hydrants or other piped water supplies to the Site. The Project would include a network of internal access roads which would provide emergency access to remote portions of the Site, as well as water tank(s) with a total, minimum capacity of 10,000 gallons for use by the LACFD for fire control. Compliance with the County's Fire Code would ensure that impacts related to fire control would be less than significant.

ii) within a high fire hazard area with inadequate access?

Less Than Significant Impact. See discussion in 4.9.2(h)i above. The Project would include a network of internal access roads which would provide emergency access to remote portions of the Site. Site access and circulation is subject to LACFD review and approval. Impacts would be less than significant.

iii) within an area with inadequate water and pressure to meet fire flow standards?

Less Than Significant Impact. See discussion in 4.9.2(h)i above. Impacts related to fire flow would be less than significant.

iv) within proximity to land uses that have the potential for dangerous fire hazard?

Less Than Significant Impact. See discussion in 4.9.2(h)i above. Impacts related to fire flow

would be less than significant.

4.9.3 **Mitigation Measures**

MM HAZ-1: Prior to commencement of onsite ground-disturbing activities, Applicant shall obtain soil samples from the Site and test such samples for the presence of agricultural chemicals (insecticides, pesticides, and/or herbicides). If chemical levels are above regulatory standards, remediation and/or removal of contaminated soils in compliance with applicable local, state, and federal standards and requirements shall be conducted prior to Project construction.

Implementation of this mitigation measure would ensure that impacts to hazards and hazardous materials would be less than significant.

4.10 HYDROLOGY & WATER QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Add water features or create conditions in which standing water can accumulate that could increase habitat for mosquitoes and other vectors that transmit diseases such as the West Nile virus and result in increased pesticide use?	☐	☐	☐	☒
f) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
g) Generate construction or post-construction runoff that would violate applicable stormwater NPDES permits or otherwise significantly affect surface water or groundwater quality?	☐	☐	☐	☒
h) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84 and Title 22, Ch. 22.52)?	☐	☐	☒	☐
i) Result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance?	☐	☐	☐	☒

j) Use onsite wastewater treatment systems in areas with known geological limitations (e.g. high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)?	☐	☐	☐	☒
k) Otherwise substantially degrade water quality?	☐	☐	☐	☒
l) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, or within a floodway or floodplain?	☐	☐	☐	☒
m) Place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain?	☐	☐	☒	☐
n) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
o) Place structures in areas subject to inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

4.10.1 **Environmental Setting**

DJP Engineering has prepared a Hydrology, Water Quality, and Low Impact Development Report (September 2014)for the Project, a copy of which are provided in Appendix G. The findings of these reports are summarized in this section.

The Project is in the Antelope Valley, which is underlain by the Antelope Valley Groundwater Basin ("Basin"), and within the jurisdiction of the Lahontan Regional Water Quality Control Board ("RWQCB"). The topography of the Site is flat with no major distinguishing features. There is an approximately 10-foot change in elevation (0.34 percent slope) from the southeast to the northwest corner of the Site, and the Site generally drains from southeast to northwest. There are no streambeds or other aquatic resources on the Site. The Site is bounded on the south and east by Avenue F-8 and 90th Street East, respectively. These streets act as a barrier preventing portions of the offsite water flows from reaching the Site.

The eastern and southeastern portions of the Site is located within 100-year flood hazard areas as determined by the FEMA. The FEMA flood hazard is categorized as a Zone "A", meaning this area is subject to a one percent annual chance flood, also known as a 100-year storm event (FEMA 2008). The flood hazard areas are shown in Exhibit 3-4, *Site Plan and Details*.

The Project does not impact a Floodplain Management Path established pursuant to the Antelope Valley Comprehensive Plan of Flood Control and Water Conservation.

4.10.2 **Project Impacts**

a) Would the project violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. Operation of the Project would not require the regular use of water or produce any form of wastewater. The Project has the potential to generate storm water pollutants, such as soils and sediments that are released during grading and excavation activities, as well as chemical and petroleum-related pollutants due to spills or leaks from heavy equipment and machinery. Soil disturbance (from construction activities associated with site grading, mounting of the solar panels, equipment installation, electrical conduit trenching, and scraping for the access roads) could cause soil erosion and the eventual release of sediment into storm water runoff.

The proposed Project includes structural treatment-control BMPs (i.e., retention basins) to reduce and control post-development runoff rates and volumes, and to capture and infiltrate storm water runoff from the Site, thereby minimizing potential pollutants in discharges from the Project. By reducing and controlling site runoff, the transport mechanism for pollutants is reduced.

The Hydrology, Water Quality, and Low Impact Development Report identify the Project potential pollutant sources and provide construction-related and post-construction BMPs to prevent Site runoff and mitigate any water quality impairment of the receiving water bodies. As the Project would not generate any pollutants of concern, impacts would be less than significant.

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

Less Than Significant Impact. As discussed in Chapter 3, operation of the Project would require minimal amounts of water, limited to watering landscaping until it is established and to cleaning of solar panels up to four times per year. The Project will not house permanent employees, nor include onsite restrooms. As required by Los Angeles County Department of Public Health regulations, a Mobile Sanitation Facility Plan shall be submitted for review prior to issuance of a grading permit. The mobile sanitation facility would be maintained in a safe and sanitary condition so as not to constitute a public hazard or nuisance. The Project would also create a very small amount of imperviousness, and since the Project would not use substantial amounts of groundwater or create large, impermeable surfaces, it would not cause depletion of groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Groundwater aquifer volume and recharge would not be significantly impacted by the implementation of the Project.

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

Less Than Significant Impact. There are no streambeds or other aquatic resources identified on the Site. According to the drainage analysis, development of the Site would not substantially alter the existing drainage pattern of the area. As the terrain on the Site is flat, and grading ground disturbance for the Project would be minimal (primarily limited to access roads, retention basins, equipment and switchgear pads, and water tanks), the existing hydrologic features and patterns of the Site will be maintained to the maximum extent feasible. The solar arrays would be installed using pile-driving techniques, rather than grading, to minimize soil disturbance.

The Project will incorporate retention basins along the northern boundary of each Phase of the

Project, or such other location(s) acceptable to the County, to ensure that any increase in surface runoff due to the Project would be maintained at pre-development levels. As shown in the Hydrology, Water Quality, and Low Impact Development Report, the maximum change in the flow volume generated on Site between existing and proposed conditions was determined for 50-year, 25-year, 10-year, 5-year, and 2-year storm flows. In accordance with the County LID requirements, the volume from a capital storm would be retained on retention basin(s) located on the northern boundary of each Phase of the Project, or such other location(s) acceptable to the County. The proposed retention basin(s)may be co-located with any the landscaping buffer on the border of the Site.

As required by the County, LACDPW will ensure that appropriate hydrology and hydraulic analyses for the Water Quality Plan/Hydrology and 2009 Low Impact Development (LID) Standard Manual compliance have been satisfied. Therefore, construction of appropriate BMPs in compliance with the Water Quality Plan/Hydrology and LID would be implemented to ensure that storm water runoff is retained and infiltrated on Site per County standards. Compliance with this requirement would also ensure that Project implementation would result in a less than significant impact related to flooding.

The Project would involve the placement of numerous PV panel mounting poles into the ground, some of which would be constructed within the delineated FEMA 100-year floodplain. The Site would be graded to generally follow the existing terrain (thus avoiding re-direction or diversion of flow), and no major site grading is proposed (significant cut and fill) that could adversely impact the floodplain depth, velocity, or top width. The majority of this floodplain is located east of 90th Street East, and the 90th Street East roadway acts as a barrier significantly reducing the volume of water that reaches the Site. The solar panels would be supported by 6-inch diameter posts, intermittently spaced approximately along a north-south alignment. It is anticipated that that these mounting poles would not pose an obstruction to flow and would have a less than significant impact to the existing floodplain; no mitigation is required.

The Site and surrounding area is in Debris Production Area 11, which generates the lowest debris production rate in the County, 1300 cubic yards per square mile. For the 80-acre project this equates to about 165 cubic yards (4,455 cubic feet). On a sheet flow basis, this is less than 0.002 feet (1/64 inch) over the entire Site and is insignificant.

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

Less Than Significant Impact. See discussion in Section 4.10.2c above.

e) Add water features or create conditions in which standing water can accumulate that could increase habitat for mosquitoes and other vectors that transmit diseases such as the West Nile virus and result in increased pesticide use?

No Impact. See discussion in Sections 4.10.2a and 4.10.2b above. Project construction and operations do not have the potential to increase standing water that could increase vector habitat.

f) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. As previously discussed above, the Project includes retention

basin(s) along the northern boundary of each Phase of the Project (or such other location(s) acceptable to the County) such that it will not generate additional storm flows that would leave the Site. As such, no runoff would leave the Site that could exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff and impacts would be less than significant.

g) Would the project generate construction or post-construction runoff that would violate applicable stormwater NPDES permits or otherwise significantly affect surface water or groundwater quality?

No Impact. See discussion in Section 4.10.2a above.

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

Less Than Significant Impact. The design of the Project is consistent with the Low Impact Development Ordinance (LID). The final grading and drainage plans would be subject to review and approval by the LACDPW in conjunction with grading permit issuance providing assurance that LID standards are adhered to. Therefore, there is no conflict with the LID development ordinance and impacts would be less than significant.

i) Would the project result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance?

No Impact. The Project is not located in an SWRCB-designated Area of Special Biological Significance ("ASBS"). Therefore, no impact would occur.

j) Would the project use onsite wastewater treatment systems in areas with known geological limitations (e.g. high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)?

No Impact. The Project would not generate the need for disposing of any liquids that would negatively impact onsite wastewater treatment facilities with known geological limitations or in close proximity to surface water. Therefore, no impact would occur.

k) Would the project otherwise substantially degrade water quality?

No Impact. See discussion in Section 4.10.2a above.

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

No Impact. No housing units would be developed on the Site. Thus, the proposed Project would not place housing within the 100-year floodplain and no impact would occur.

m) Would the project place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain?

Less Than Significant Impact. See discussion in Section 4.10.2c above.

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

No Impact. The Site is not located near a levee, dam, or other inundation area. Therefore, no impact related to flooding as result of the failure of a levee or dam would occur.

o) Would the project place structures in areas subject to inundation by seiche, tsunami, or mudflow?

No Impact. The Site is located more than 80 miles from the ocean and is outside the tsunami inundation areas along the coast. Additionally, there are no hillside areas in the vicinity of the Site that would generate mudflow at the Site. No impact related to seiche, tsunami, or mudflow would occur.

4.10.3 **Mitigation Measures**

Project implementation would not result in significant impacts related to hydrology and water quality. Therefore, no mitigation is required.

4.11 LAND USE AND PLANNING	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Be inconsistent with the applicable County plans for the subject property including, but not limited to, the General Plan, specific plans, local coastal plans, area plans, and community/neighborhood plans?	☐	☐	☐	☒
c) Be inconsistent with the County zoning ordinance as applicable to the subject property?	☐	☐	☐	☒
d) Conflict with Hillside Management criteria, Significant Ecological Areas conformance criteria, or other applicable land use criteria?	☐	☐	☐	☒

4.11.1 Environmental Setting

The Site is located in unincorporated Los Angeles County and designated as "Non-Urban 1" (N-1; 0.5 dwelling unit per acre [du/acre]) per the Los Angeles County Antelope Valley Area Land Use Policy Map (LACDRP 1986). The Site is zoned "Heavy Agricultural" (A-2-1; one-acre minimum lot size) on the Los Angeles County Zoning Map. Per the County Code, electric generating plants are a conditionally permitted use in Heavy Agricultural (A-2-1) zones upon obtaining a CUP. The Project is also consistent with the County's Non-Urban 1 land use designation as it meets the definition of a "utility installation" referenced in the listing of non-urban non-residential land uses allowed in remote areas designated Non-Urban 1 (LACDRP 1986).

4.11.2 Project Impacts

a) Would the project physically divide an established community?

No Impact. The Site is not located within a residential area, nor is it surrounded by residential uses that make up an established community. The land around the Site consists largely of vacant land or alfalfa farms. Therefore, the Project would not divide an established neighborhood, and no impact will occur.

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

No Impact. The Project would comply with the plan designations and applicable provisions of the County General Plan and associated Antelope Valley Areawide General Plan (LACDRP 1986, 1980). The Project is not located within the boundaries of a Community Standards District; therefore, there are no standards to apply.

The Antelope Valley Area Plan designates the Site as "Non-Urban 1". This designation states that development of "non-residential uses requiring, or appropriate for, remote locations may be allowed in

non-urban areas" if the proposed use follows general guidelines and development standards outlined in the Antelope Valley Areawide General Plan for non-residential uses within the Non-Urban 1 land use classification. "Utility and communication installations" are uses allowed in the Non-Urban 1 classification. Therefore, no impact will occur.

c) Would the project be inconsistent with the County zoning ordinance as applicable to the subject property?

No Impact. As mentioned above, electric generating plants are a conditionally permitted use in the Heavy Agricultural (A-2) zone upon obtaining a CUP. By obtaining a CUP for the Site, a solar PV facility is a permitted use consistent with County zoning ordinances applicable to the Site, consistent with the County zoning ordinance. Therefore, no impact will occur.

d) Would the project conflict with Hillside Management criteria, Significant Ecological Areas conformance criteria, or other applicable land use criteria?

No Impact. The Project is not within the boundaries of a designated Hillside Management Area, Significant Ecological Area, or other applicable land use criteria. Therefore, no impact will occur.

4.11.3 **Mitigation Measures**

Project implementation would not result in significant impacts related to land use and planning. Therefore, no mitigation is required.

4.12 MINERAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

4.12.1 Environmental Setting

Review of maps prepared by the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources shows that the Site does not contain oil, gas, or geothermal resources (DOGGR 2001), and there are no oil wells or mining activities in or near the Site (DOGGR 2010).

4.12.2 Project Impacts

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The Project is not designated as a mineral resource area by the County or the state. Therefore, the Project would not result in an impact to a known mineral resource that would be of value to the region and residents of the state.

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. See discussion in Section 4.12a above.

4.12.3 Mitigation Measures

Project implementation would not result in significant impacts related to mineral resources. Therefore, no mitigation is required.

4.13 NOISE	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Exposure of persons to, or generation of, noise levels in excess of standards established in the County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from parking areas?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from amplified sound systems?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.13.1 Environmental Setting

The Site is located in a sparsely-developed, rural area of north Los Angeles County. With the exception of the Site, and a few parcels located immediately west of the Site, all of the land north, south, and west of the Site between Avenues D and G and 70th and 90th Streets East (approximately six square miles) is owned by the Los Angeles County Sanitation District ("LACSD"). The LACSD uses this land as an offsite storage location for its treated sewage water via crop circle alfalfa farming. The land immediately west of the Site is vacant with the exception of two residences near the northwest and southwest corners of the Site. Other than a small parking lot for industrial vehicles immediately east of the southeast corner of the Site, the land east of the Site (beyond 90th Street East) is vacant or used for alfalfa farming. There are no other residences or commercial operations within approximately one mile of the Site. There are no industrial or manufacturing land uses in the Project vicinity, with the exception of SCE's Redman Substation, which is located approximately one mile north of the Site at Avenue E and 90th Street East.

The ambient noise levels in the vicinity of the Site are typical of rural areas, with the dominant sources of noise from traffic on Avenue F and 90th Street West and agricultural activity north and east of

the Site. Noise-sensitive receptors and land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals and places where quiet is an essential element of the intended purpose. Residential dwellings, hospitals, schools, places of worship, libraries, and other places where low interior noise levels are essential are considered noise-sensitive land uses.

As described and defined in Section 12.08.440 of the County Code, there are no known designated Noise Zone I (noise-sensitive) or Noise Zone III (commercial) areas in on or in the vicinity of the Site. There is a Zone II (residential) receptor approximately 250 feet west of the northwest corner of the Site, and the second residence located approximately 600 feet west of the southwest corner of the Site. Other than the foregoing, there are no other residences, schools, nursing homes, or other sensitive receptors within approximately one mile of the Site.

4.13.2 **Project Impacts**

a) Would the project result in exposure of persons to, or generation of, noise levels in excess of standards established in the County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?

Less Than Significant Impact. Both construction and operation of the Project would be conducted in compliance with the County Noise Control Ordinance, Section 12.08 of the County Code. The County Noise Ordinance prohibits construction noise between the hours of 7:00 PM and 7:00 AM on weekdays (including Saturday), and at any time on Sunday or a federal holiday if it creates a disturbance across a residential or commercial property line. The County also sets maximum, daytime noise levels from mobile construction equipment (nonscheduled, intermittent, short-term operations for less than 10 days) at single family residential sites at 75 dBA.

Construction noise is related primarily to the use of heavy equipment and would be intermittent and sporadic. Noise levels generated by heavy equipment can range from approximately 68 dBA to an excess of 100 dBA when measured at 50 feet. The distance from the noise source to a receptor is a primary consideration in determining the actual noise level experienced at the receptor. Construction equipment noise is analyzed as a point source. Noise from a point source is attenuated at a rate of 6 dBA per doubling of distance. For example, a noise level of 85 dBA measured at 50 feet from the source to the receptor would be reduced to 79 dBA at 100 feet, and 73 dBA at 200 feet.

All project-related construction activities would be conducted according to best management practices, including maintaining construction vehicles and equipment in good working order by using mufflers where applicable, limiting the hours of construction, and limiting the idle time of diesel engines. Noise from construction equipment would be limited by compliance with the Noise Control Ordinance. Despite compliance with County requirements, noise generated by construction equipment during the construction phase of the Project may result in a temporary increase in ambient noise levels. The Noise Control Ordinance standard for construction is stated in terms of a “not-to-exceed” level, which is generally understood to be the peak hourly value (Leq). The highest anticipated noise levels from mobile equipment during construction would occur during pile driving for the solar structure posts, which has a maximum noise levels (Lmax) at a distance of 50 feet of 95 dBA. The solar arrays would be installed using pile-driving techniques, rather than grading, to minimize dust and soil disturbance. Actual pile driving averages 30-45 seconds per pile at a 6-foot embedment depth. At 250 feet, the noise from the pile driver should attenuate to 82 dBA, 75 dBA at 600 feet, and 55 dBA at 1,200 feet (approximately the far western boundary of the Site). The pile driving near the neighboring residences would last for less than one day and would not be substantial in duration.

The operation of heavy construction equipment would cause temporary increases in ambient noise levels in the vicinity of the Site and would cease when construction is over. Construction activities would occur for approximately three to six months and would be conducted in compliance with the County's construction noise standards, which prohibits non-emergency construction activities that generate substantial noise between the hours of 7:00 PM and 7:00 AM on weekdays and Saturdays, and at any time on Sunday or a federal holiday. Therefore, construction noise impacts would be less than significant.

A Decommissioning Plan for the Project would be prepared and submitted to the County for approval prior to the issuance of a grading permit. This Decommissioning Plan would ensure that the Site is returned to a beneficial use upon termination of both Phases of the Project. While the Project may be decommissioned after the 20 year life of the power purchase agreement for each Phase of the Project, it is more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. It is assumed that decommissioning of the Site would require the same construction scenario (activities, equipment, duration) as the initial development of the Site; however, noise impacts would be less than those currently projected due to anticipated advancements in technology and a cleaner-burning construction equipment fleet mix. Future decommissioning activities would also be expected to comply with the same or equivalent noise mitigation requirements. Therefore, future noise impacts related to decommissioning would be less than significant.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Groundborne noise is addressed in 4.13.2a above. Groundborne vibration, expressed as peak particle velocity (ppv), consists of oscillatory waves that propagate from the source through the ground to adjacent structures. At a distance of 250 feet (the nearest residence), the groundborne vibration is expected to be about 0.1 ppv in/sec, which is three-fold less than a 0.3 ppv in/sec level which could cause any damage to structures. The impact would be less than significant, and no mitigation measures would be required.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from parking areas?

Less Than Significant Impact. Potential long-term operational noise impacts would be related to the operation of electrical equipment such as transformers and inverters and to onsite ongoing operations and maintenance ("O&M") activities.

Each PV module 1 MW block will have two inverters and a ventilation fan housed inside prefabricated enclosure and one transformer mounted on a concrete pad. The nearest inverter-transformer block is expected to be approximately 700 feet from the nearest residence. Each inverter generates a noise level of about 75 dBA at a distance of 10 feet, and is expected that the enclosure would provide 15 to 20 dBA of noise reduction, reducing the inverter noise to approximately 58-63 dBA at a distance of 10 feet from the enclosure. The transformers generate a noise level of about 58 dBA at a distance of six feet. PV station transformers and power inverters located within the facility are generally considered a low level source of noise, limited to daytime hours when the solar arrays are generating electricity. The impact would be less than significant. No mitigation is required.

The workforce performing onsite O&M would be comprised of general labor for cleaning purposes; skilled electricians for visual inspections and performance testing; and skilled mechanics to inspect and maintain the mechanical portions of the tracking system (if applicable). Because the entire

facility would be monitored remotely in real time, it is anticipated that about two to four O&M personnel would make about two to three visits per year to conduct the onsite O&M functions. These occasional activities would not result in any noticeable noise and the impact would be less than significant. No mitigation is required.

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

Less Than Significant Impact. Because the entire facility would be monitored remotely in real time, it is anticipated that only two to four O&M personnel would make about two to three visits per year to conduct the onsite O&M functions. The workforce performing onsite O&M would be comprised of general labor for cleaning purposes; skilled electricians for visual inspections and performance testing; and skilled mechanics to inspect and maintain the mechanical portions of the tracking system (if applicable). These occasional activities would not result in any noticeable noise and the impact would be less than significant. No mitigation is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Palmdale Regional Airport is located approximately 10 miles southwest of the Site, General William J. Fox Airfield is located approximately 13 miles to the east, and the flight line of Edwards Air Force Base is located approximately 11 miles northeast of the Site. Therefore, no impacts would occur.

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

No Impact. The Site is not located within an airport land use plan, within two miles of an airport, or in the vicinity of an airstrip. Therefore, no impacts would occur.

4.13.3 **Mitigation Measures**

Project implementation would not result in significant impacts related to noise. Therefore, no mitigation is required.

4.14 POPULATION AND HOUSING	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
d) Cumulatively exceed official regional or local population projections?	☐	☐	☐	☒

4.14.1 Environmental Setting

The Site is vacant, and there are no residents, housing units, or employees at the Site.

4.14.2 Project Impacts

a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?

Less Than Significant Impact. The Project would not induce substantial population growth. It does not propose any housing or commercial development, nor does it propose any significant extension of roads or infrastructure. No change in the County's population or housing would occur with Project implementation. Construction jobs would be short-term and are expected to be filled mostly by the existing workforce and sourced from the surrounding communities. During operations, the Project would typically be unmanned, with the exception of periodic onsite personnel visitations for security, maintenance, and system monitoring. These intermittent Site visits would not create any permanent or substantial demand for housing, goods, or services in the area and would not induce substantial population growth in the County or surrounding communities. Therefore, impacts to population growth would be less than significant.

b) Would the project displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Site is vacant. Therefore, the proposed Project would not displace existing housing units, households, businesses, or employees. No impacts would occur.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. See discussion in 4.14b above.

d) Would the project cumulatively exceed official regional or local population projections?

No Impact. The Project does not propose any housing or commercial development, nor does it propose any significant extension of roads or infrastructure. No change in the County population or housing would occur with Project implementation. Therefore, the Project would not materially affect local or regional population.

4.14.3 **Mitigation Measures**

Project implementation would not result in significant impacts related to population or housing. Therefore, no mitigation is required.

4.15 PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Sheriff protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
iii) Libraries?	☐	☐	☐	☒
iv) Other public facilities?	☐	☐	☐	☒

4.15.1 Environmental Setting

The nearest County fire station to the Site is Fire Station 117, located at 44851 30th Street East, Lancaster, CA 93535, which is approximately 7 miles west of the Site. Police protection services for the Site are provided by the Los Angeles County Sheriff's Department ("LACSD") located at 501 West Lancaster Boulevard, Lancaster, CA 93534.

4.15.2 Project Impacts

a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: i) Fire protection?

Less Than Significant Impact. The Project would not involve the creation of new habitable structures or new population growth that could generate increased demand for fire protection services. The Project has the potential to require fire protection services in the event that any of the equipment or Site vegetation were to catch fire. During construction, there would be workers, machinery, construction supplies, and hazardous materials such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles on Site. There is a possibility that construction activities could accidentally ignite a fire that could require assistance from the LACFD. The nearest fire station is located approximately seven miles east of the Site, and no new or physically altered fire protection facilities would be required to provide service to the Site. Therefore, no impacts would result.

On January 8, 2014, LACFD provided a comment letter to the CUP application for the Project stating that they are satisfied with the preliminary design of the Project and the fire protection measures incorporated therein (LACFD 2014).To ensure that no fire hazards are created by the Project, building plans would be subject to review and approval by the LACFD; annual inspections of the buildings and premises for compliance and to correct conditions which may cause fire or contribute to its spread would also be required. Compliance with these regulations would ensure that Project impacts would remain less than significant.

ii) Sheriff protection?

Less Than Significant Impact. The Project would not generate additional demand for police protection services. The Project would not lead to a resident population on the Site, and thus would not change the officer-to-population ratio for the area.

Operation of the Project is largely unmanned and would require limited LACSD protection services. The proposed solar facilities would be surrounded by a six-foot-tall fence with an additional one to two feet of three-string barbed wire to prevent unauthorized access or trespassing. Perimeter, motion-activated fence lighting may be installed to provide nighttime security of the solar facility. Patrol services around the solar facilities are expected to continue to be provided by the LACSD personnel. Therefore, construction and operations of the Project would have a less than significant impact on sheriff protection services and their staffing or response times.

iii) Schools?

No Impact. The Project would not include the development of housing units, nor would it induce population growth. Thus, no impact on capacities, service levels, or performance objectives for schools would be generated by the Project. Therefore, no impact would occur.

iv) Parks?

No Impact. The Project would not include the development of housing units, nor would it induce population growth. Thus, no impact on capacities, service levels, or performance objectives for parks would be generated by the Project. Therefore, no impact would occur.

v) Libraries?

No Impact. The Project would not include the development of housing units, nor would it induce population growth. Thus, no impact on capacities, service levels, or performance objectives for libraries would be generated by the Project. Therefore, no impact would occur.

vi) Other public facilities?

No Impact. No impact on capacities, service levels, or performance objectives for other public facilities would be generated by the Project. Therefore, no impact would occur.

4.15.3 Mitigation Measures

Project implementation would not result in significant impacts related to public services. Therefore, no mitigation is required.

4.16 RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
c) Would the project interfere with regional open space connectivity?	☐	☐	☐	☒

4.16.1 Environmental Setting

The Site and surrounding areas are not used for recreational purposes. Land uses surrounding the Site include undeveloped land with varying degrees of disturbance due to previous or existing agricultural activities. Land adjacent to the Project is also former farmland that is currently undeveloped. While these areas are open space, they do not currently support any recreational activities.

4.16.2 Project Impacts

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The Project would not directly or indirectly result in housing development or population growth on the Site or in the surrounding area. With no new households or residents, the Project would not increase the demand or use of local parks or regional recreational facilities. Therefore, the Project would have no impact on existing, or create a need for new neighborhood or regional parks.

b) Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment?

No Impact. See discussion in 4.16.2a above. The Project would not create a need for new neighborhood or regional parks. There would be no impacts.

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

No Impact. The Site is private property and does not contribute to recreational connectivity. While the Project would reduce the amount of connected open space by fencing off the Site, due to the vast amount of surrounding open space, the Project would not interfere with regional recreational connectivity. Therefore, there would be no impact.

4.16.3 **Mitigation Measures**

Project implementation would not result in significant impacts related to recreation. Therefore, no mitigation is required.

4.17 TRANSPORTATION/TRAFFIC	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program (CMP), including, but not limited to, level of service standards and travel demand measures, or other standards established by the CMP for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature(e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

4.17.1 Environmental Setting

The Site is undeveloped and does not generate vehicle trips on the freeway or area roadways. Regional access to the Site is provided via the Antelope Valley Freeway (State Route 14), exiting at either Avenues D, F, or G, then proceeding east along either Avenues E or G to 90th Street East, and then north or south to Avenue F. See Exhibit 3-1, *Regional Location*. Avenues E, F, and G and 90th Street East are all two lane, paved County roadways. State Route 14, which runs in a north-south direction, is located approximately 10 miles west of the Site. In 2008, this freeway carried approximately 51,000 vehicles per day with 4,350 vehicles during the peak hour (Caltrans 2010b). This freeway is part of the Highway and Roadway System in the County's Congestion Management Program (CMP) (MTA 2010).

Vehicle access from State Route 14 to the Site is provided by Avenues E or G, both of which have been identified Existing Major Highways (LACDRP, 2012, Figure 7.3). Traffic data obtained from the County Department of Public Works Machine Count Traffic Volumes identified that (a) in 2010, Avenue E had average daily traffic ("ADT") of 3,200 - 3,400 vehicles near the intersection of 90th Street

East, (b) in 2012, Avenue G had ADT of 171 vehicles east of 70th Street East, and (c) in 2010, 90th Street East had ADT of about 650 vehicles south of Avenue E.

4.17.2 **Project Impacts**

a) Would the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less Than Significant Impact. Trip generation for employees and delivery trucks would vary depending on the phase of construction for each Phase of the Project. The anticipated peak traffic day during construction, which would occur when equipment delivery trucks overlap with worker trips for panel installations, would involve approximately 46 round-trip truck trips (including approximately 20 water truck trips) and 40 round-trip worker trips per day. This peak activity is estimated to occur over approximately 12 working days, but may be more or less depending on the actual timing of construction phase overlap.

It is anticipated that Phase 1 and Phase 2 of the Project will be constructed at separate times. However, to assume the worst case scenario, Applicant has calculated the traffic impacts of the Project as if the construction of Phase 1 and Phase 2 of the Project would occur concurrently. In the event Phase 1 and Phase 2 of the Project are constructed concurrently, the anticipated peak traffic day for construction would involve approximately 70 round-trip truck trips (including approximately 35 water truck trips) and 60 round-trip worker trips per day. This peak activity is estimated to occur over approximately 20 working days, but may be more or less depending on the actual timing of construction phase overlap.

This limited amount of construction activity is not expected to cause traffic congestion on area roadways and intersections. There is capacity on local intersections and streets near the Site to handle traffic volume increases due to construction traffic. The movement of large equipment on public roadways shall be made in compliance with the County Code (Title 16, Highway), which requires a moving permit and which includes provisions regarding the size of vehicles/equipment; night moves; moving in inclement weather; parking on streets; travel outside peak hours and holidays; over-length, over-height, and over-width requirements; lighting; signs; and restricted routes. Oversized transport vehicles on state highways, if required, would need to obtain a transportation permit from the California Department of Transportation (Caltrans).This impact would also be temporary and is less than significant.

Long-term operation of the solar array would generate only eight to 15 maintenance vehicle trips per year (two to four personnel making 2 to 3 annual Site visits), which translates to no more than two vehicle trips every month. Additionally, (at most) 100 water truck trips will be required during the first three years for purposes of establishing the landscape buffer along portions of the Project boundaries. Irrigation via water trucks will be conducted until the landscaping is established at a rate of approximately once a week for the first year, twice a month for the second year, and once a month for the third year. This long-term trip generation would not affect roadway or intersection operations in the Project area. Impacts would be less than significant.

A Decommissioning Plan for the Project would be prepared and submitted to the County for approval prior to the issuance of a grading permit. This Decommissioning Plan would ensure that the Site is returned to a beneficial use upon termination of both Phases of the Project. While the Project may be decommissioned after the 20-year life of the power purchase agreement for each Phase of the Project, it is

more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. It is assumed that decommissioning of the Site would require the same construction scenario (activities, equipment, duration) as the initial development of the Site. While it is unknown what the future baseline traffic conditions will be, future decommissioning activities would also be expected to comply with the same or equivalent traffic control mitigation requirements. Therefore, future traffic impacts related to decommissioning would be less than significant.

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

No Impact. See discussion in Section 4.17.2a above. The Site is not located within an area with CMP designated roads or highways. Therefore, no impacts would occur.

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The Site is not located within an airport land use plan. The Project would not generate or require air transportation. Also, the Project would not change air traffic levels or change the location of air traffic to cause substantial safety risks or impact air travel in any way. The PV panels and associated equipment would not exceed single-story height. Therefore, no impacts would occur.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The Project does not include any significant construction or the realignment of any existing road facilities. Construction staging and lay-down areas would be located within the Site boundaries and would not create a potential traffic hazard on public right-of-ways. As discussed above, the limited amount of construction activity for the grading and vehicle trips by the construction crew for delivery of building materials is not expected to cause traffic congestion or insufficient capacity on area roadways and intersections.

A Decommissioning Plan for the Project would be prepared and submitted to the County for approval prior to the issuance of a grading permit. This Decommissioning Plan would ensure that the Site is returned to a beneficial use upon termination of both Phases of the Project. While the Project may be decommissioned after the 20-year life of the power purchase agreement for each Phase of the Project, it is more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. It is assumed that decommissioning of the Site would require the same construction scenario (activities, equipment, duration) as the initial development of the Site. It is expected that future decommissioning activities would also be expected to comply with the same or equivalent traffic control mitigation requirements. Therefore, future traffic impacts related to decommissioning would be less than significant.

e) Would the project result in inadequate emergency access?

Less Than Significant Impact. The Site would not result in inadequate emergency access. The Project would not obstruct any existing access route, and onsite access roads would be provided in accordance with LACFD requirements. The Project would provide access through driveways onto Avenues F and F-8, but would otherwise be fenced-off.

Per LACFD requirements, water tank(s) would be installed on the Site. The internal access roads would be installed according to the County Code prior to operating the facilities and would be maintained in a drivable condition throughout the operation of the Project to allow for emergency access. Therefore, no impact on emergency access would occur.

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The Project is located in a rural area of Los Angeles County where alternative transportation facilities are not readily available. Development of the Project would utilize the existing road network and would not impact or conflict with bike trails, pedestrian access, transit services, or other modes of alternative transportation. Thus, impacts on or conflicts with alternative transportation policies, plans, or programs would be less than significant.

4.17.3 **Mitigation Measures**

Project implementation would not result in significant impacts related to traffic and transportation. Therefore, no mitigation is required.

4.18 UTILITIES AND SERVICE SYSTEMS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards?	☐	☐	☒	☐
b) Create water or wastewater system capacity problems, or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Create drainage system capacity problems, or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient reliable water supplies available to serve the project demands from existing entitlements and resources, considering existing and projected water demands from other land uses?	☐	☐	☒	☐
e) Create energy utility (electricity, natural gas, propane) system capacity problems, or result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☒	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☒	☐	☐

4.18.1 Environmental Setting

The Project is in the Antelope Valley, which is underlain by the Antelope Valley Groundwater Basin ("Basin"). Several property owners and public water suppliers have initiated legal proceedings asking the County Superior Court of California to determine the relative rights of users and potential users of the Basin (1-05-CV-049053: Antelope Valley Groundwater Cases, Consolidated Proceeding 4408). The case involves many complex legal issues and hundreds of parties, and despite years of litigation, remains unresolved. The underlying dispute among the parties is the priority/superior right to pump the groundwater and the protection of the Basin.

There are no water, sewer, or solid waste disposal services at the Site. The undeveloped Site also does not generate solid wastes requiring collection and disposal. The Site is located just outside the service boundaries of the Los Angeles County Waterworks District No. 40, but portions of the Site are

located within the District's sphere of influence.

4.18.2 Project Impacts

a) Would the project exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards?

Less Than Significant Impact. The Project will not generate domestic wastewater as no habitable structures, restrooms, bathrooms, toilets, or kitchen facilities would be constructed. The Project would provide a mobile sanitation facility for use by workers during the construction activities on the Site. Although no significant impacts would result from the use of mobile sanitation facilities, the County Department of Public Health requires the preparation of a mobile sanitation facility plan for sites with no permanent facilities. The mobile sanitation facility would be maintained in a safe and sanitary condition so as not to constitute a public hazard or nuisance, and would be consistent with the Department of Public Health's "Sanitation Facilities at Remote Worksite Locations". Domestic wastewater would be treated using existing facilities per County regulations.

During operations, the mobile sanitation facility would be provided onsite whenever O&M activities are scheduled to take place. Domestic wastewater generated by the mobile sanitation facility would be treated using existing facilities per County regulations. Therefore, no wastewater treatment is required that may exceed RWQCB requirements and impacts would be less than significant.

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

Less Than Significant Impact. Estimated water required by the Project is detailed in Table 3-3. As required by the County, all water would be trucked to the Site from available commercial water sources acceptable to the County, including obtaining water deliveries (a) through the County Waterworks District 40 (the "District") and/or LACSD for recycled water, (b) through a negotiated program between the Antelope Valley-East Kern Water Agency (AVEK) and the District, (c) purchasing a new permanent water supply, or contracting with a water bank outside the Antelope Valley Groundwater Basin for the Project and transferring those supplies to the AVEK and the District for use in connection with the Project, (d) purchasing potable or non-potable water from the City of Lancaster, City of Palmdale, or other city, public agency, public entity, district, or public or private water purveyor authorized to sell water to the Project, (e) on-site wells (to the extent permitted), or (f) any other source acceptable to the County. Water would be trucked in and/or may be stored in onsite water tanks that provide water for fire suppression, three years of landscaping establishment, and O&M activities. Onsite storage water tanks would be refilled as necessary.

No water or wastewater services or connections to existing facilities are required by the Project. There would be no demand for potable water or generation of wastewater as there would be no habitable structures on Site. The Project's impacts to water or wastewater system capacity would be less than significant.

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

Less Than Significant Impact. The Project would not require construction of a storm drainage

system or expansion of an existing storm water drainage or treatment facility. As previously discussed in Section 4.10 (Hydrology and Water Quality), the Project would be constructed with appropriate BMPs to ensure that adjacent storm drain facilities are not negatively impacted by the proposed Project, and the Project will otherwise comply with the County's water quality plan/hydrology requirements. The design of the Project is consistent with the County's low impact development requirements as retention basins are included on the Project, virtually eliminating the need for a centralized facility, such as a regional stormwater management basin.

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

Less Than Significant Impact. The Project would require minimal water supply during construction activities and for the washing of the PV panels during long-term maintenance. Chapter 3, Project Description, contains a summary of estimated water supplies required during construction and operations, primarily for fugitive dust control during grading and ground disturbance activities and removing dust from the panels during operations.

Due to concerns on over drafting the Basin and ongoing Adjudication proceedings, the County requires that Applicant obtain a "will serve" letter from a water source acceptable to the County, such as(a) through the County Waterworks District 40 (the "District") and/or LACSD for recycled water, (b) through a negotiated program between the Antelope Valley-East Kern Water Agency (AVEK) and the District, (c) purchasing a new permanent water supply, or contracting with a water bank outside the Antelope Valley Groundwater Basin for the Project and transferring those supplies to the AVEK and the District for use in connection with the Project, (d) purchasing potable or non-potable water from the City of Lancaster, City of Palmdale, or other city, public agency, public entity, district, or public or private water purveyor authorized to sell water to the Project, (e) on-site wells (to the extent permitted), or (f) any other source acceptable to the County. Applicant has obtained, or prior to CUP approval will obtain, a "will serve" letter for LACSD's recycled water from County Waterworks District 40 for the Project or other water source acceptable to the County.

Compliance with these requirements would prevent increased groundwater pumping within the Basin and avoid the need for a permanent demand for water at the Site. Therefore, impacts would be less than significant.

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

Less Than Significant Impact. The Project would not require natural gas or propane; however, it would use minor amounts of electricity for construction and on-going maintenance operations during the life of the Project. This electricity service will be obtained from SCE's facilities adjacent to the Site. Therefore, impacts to energy utility system capacity would be less than significant.

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

Less Than Significant With Mitigation. The proposed Project would result in the generation of minor amounts of construction wastes, which would require disposal at the Lancaster Landfill. Solid wastes generated by employees and other onsite activities during long-term Project O&M activities (i.e.,

panel cleaning and vegetation management) would be minimal. The long-term solid waste stream would not be large enough to require any measurable landfill capacity. Impacts would be limited and temporary during construction and are considered less than significant.

The County adopted an ordinance, effective March 6, 2005, that requires all construction projects to recycle a portion of the generated construction wastes. The ordinance amends Title 20 of the Los Angeles County Code by adding Chapter 20.87 (Construction and Demolition [C&D] Debris Recycling and Reuse), which requires all construction projects to recycle or reuse a portion of all C&D debris, soil, rock, and gravel removed from a Site unless a lower percentage is approved by the Director of LACDPW. The Project shall comply with the standards that are in effect at the time of the permit issuance. All waste generated during construction of the Project would be handled and disposed of in compliance with all applicable federal, state, and local statutes and regulations related to solid waste. MM UTIL-1 requires that the Applicant to prepare a Recycling and Reuse Plan (RRP) and submit the document for review and approval with the County Department of Public Works Environmental Programs Director. Therefore, with implementation of MM UTIL-1, there would be less than significant impacts related to landfill capacity and solid waste regulations.

A Decommissioning Plan for the Project would be prepared and submitted to the County for approval prior to the issuance of a grading permit. This Decommissioning Plan would ensure that the Site is returned to a beneficial use upon termination of both Phases of the Project. While the Project may be decommissioned after the 20-year life of the power purchase agreement for each Phase of the Project, it is more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. In connection with the decommissioning, the Project will remove and dispose of most of the equipment, including solar modules, mounting poles, beams, fencing, conduit, and other electrical equipment would have value and could be sold or recycled. Any remaining construction waste would be disposed of in accordance with applicable policies and regulations at that time.

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant With Mitigation. See discussion in Section 4.18.2f above.

4.18.3 **Mitigation Measures**

MM UTIL-1: Construction activities on the Site shall be conducted in compliance with Chapter 20.87 (Construction and Demolition Debris Recycling and Reuse) of the Los Angeles County Code. A Recycling and Reuse Plan (RRP) must be submitted to the Los Angeles County Department of Public Works, Environmental Programs Division prior to grading permits being issued for each of Phase 1 and Phase 2 of the Project.

Implementation of this mitigation measure would reduce impacts to less than significant levels.

4.19 MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☒	☐
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
d) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

4.19.1 Environmental Setting

The Site is undeveloped, and does not generate any environmental impacts aside from nuisance dust during high winds.

4.19.2 Project Impacts

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant with Mitigation. As discussed in Section 4.4 (Biological Resources)the Site is considered to be habitat for burrowing owl and poor foraging habitat for Swainson's hawk. The Project's potential impact with respect to these species would be mitigated to a less than significant level through the implementation of MM BIO-01 through MM BIO-07. Project implementation would not substantially affect regional wildlife or interfere substantially with the movement of any native resident or migratory fish or wildlife species in open areas surrounding the Site, nor would it impede the use of

native wildlife nursery sites.

As discussed in Section 4.5 (Cultural Resources), there would be no impacts to known historic, archaeological, or paleontological resources. Potential impacts to unknown cultural resources and potential impacts to human remains from implementation of the Project would be mitigated to less than significant levels with the implementation of MM CUL-1 and MM CUL-2. Therefore, with the incorporation of mitigation measures, the Project does not have the potential to eliminate important examples of the major periods of California history or prehistory.

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

Less Than Significant Impact. The Project would achieve short-term environmental goals related to the creation of renewable energy and the offset of demands for fossil fuels, in support of local and state policy. A Decommissioning Plan for the Project would be prepared and submitted to the County for approval prior to the issuance of a grading permit. This Decommissioning Plan would ensure that the Site is returned to a beneficial use upon termination of both Phases of the Project. While the Project may be decommissioned after the 20-year life of the power purchase agreement for each Phase of the Project, it is more likely that the solar facilities would continue to operate until approximately 35 years, which is the useful life of the PV panels. The Plan will ensure the Site is returned to a beneficial use upon termination of the use of the land as a solar site. Therefore, the Project would not result in any negative impacts to long-term environmental goals.

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

Less Than Significant Impact. Other than the Project, there are no known past, current, or probable future renewable energy projects under development or in the entitlement process within a three (3) mile radius of the Site. The nearest existing PV project to the Site is small (approximately 20 acre) solar PV facility near Avenue L-8 and 90th Street East, approximately 6.5 miles south of the Site in the City of Palmdale. Due to the constrained nature of SCE's utility grid in the area around the Site, there is not likely to be many (if any) additional PV projects constructed in the area other than the Project. Accordingly, there are no cumulative impacts beyond the individual impacts of the Project.

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

Less Than Significant Impact. Project construction and operation does not have the potential to generate significant adverse impacts on human beings and no mitigation would be required for the topical issues related to human health, including air quality, hydrology and water quality, noise, or transportation and traffic. Mitigation measures were required for potential impacts associated with hazards and hazardous materials, which would be mitigated to a less than significant level.

4.19.3 <u>Mitigation Measures</u>

As described in Sections 4.1 through 4.18, the impacts of the Project will be less than significant or will be reduced to less than significant with the implementation of identified mitigation measures. There are no Project impacts which remain significant and unavoidable following implementation of

mitigation measures. In addition to the identified Mitigation Measures, the implementation of Project design features and County policies, standards, guidelines, and requirements would ensure that there would be no substantial adverse effects on human beings, either directly or indirectly.

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