Final Environmental Impact Report
Silverado Power West Los Angeles County
SCH # 2012061068 / ENV # 201100109

COUNTY OF LOS ANGELES
Department of Regional Planning
320 West Temple Street, Room 1362
Los Angeles, California 90012

April 2014

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1.0 Introduction

1.1 Purpose

Before approving a project, the California Environmental Quality Act (CEQA) requires the Lead Agency to prepare and certify a Final Environmental Impact Report (FEIR). This document represents the FEIR for Silverado Power West, Los Angeles County Projects (State Clearing House No. 2012061068 and Environmental Review No. 201100109). This FEIR has been prepared in accordance with Section 15132 of the CEQA Guidelines, as amended. As required by this section, the FEIR shall consist of the following:

- Revisions of the Draft EIR (DEIR).
- Comments and recommendations received on the DEIR.
- The responses, organizations, and public agencies environmental points raised in the review and consultation process.
- Any other information added by the Lead Agency.

The Lead Agency must provide each agency that commented on the DEIR with a copy of the Lead Agency's proposed response at least 10 days before certifying the FEIR.

1.2 Environmental Review Process

As defined by Section 15050 of the *CEQA Guidelines*, the County of Los Angeles is the "Lead Agency" responsible for preparing the EIR for the Project. The County determined that preparation of an EIR was required for the Project after conducting preliminary review. Following this determination, a Notice of Preparation (NOP) was issued by the County of Los Angeles for the required 30-day review period from June 20, 2012 through July 20, 2012 to solicit early comments on the proposed content of the DEIR (see Appendix A to the DEIR). All NOP comments relating to the EIR were reviewed and the issues raised in those comments were considered in the preparation of the DEIR.

The DEIR was circulated for a 45-day public review period as required by CEQA from January 6 to February 19, 2014. The County of Los Angeles Hearing Examiner held a public hearing on February 1, 2014 and took public testimony on the DEIR.

1.3 Contents of the FEIR

This document dated March 2014, together with the DEIR dated January 2014 for the proposed Project and the Technical Appendices to the DEIR dated January 2014 constitute the FEIR for the proposed project. The DEIR consisted of the following:

- The DEIR, which included the environmental analysis for the proposed Projects; and
- Technical Appendices, which included:

  Appendix A
  - A-1 Notice of Preparation
  - A-2 Initial Study
  - A-3 Mailing List
  - A-4 Comments Received
  - A-5 Transcript of Scoping Meeting

Appendix B – Technical Studies

- B-1 Aesthetics
- B-2 Air Quality; Greenhouse Gases and Climate Change
- B-3 Biological Resources
- B-4 Cultural Resources
- B-5 Geology and Soils
- B-6 Hazards and Hazardous Materials
- B-7 Hydrology and Water Quality
- B-8 Noise
- B-9 Transportation and Traffic
- B-10 Los Angeles County Department of Public Works Document
- B-11 Agriculture and Forestry
- B-12 Land Use
- B-13 Utilities
- B-14 Site Plans

This FEIR is organized in the following six sections:

- Section 1.0 Introduction: This section provides a brief introduction to the FEIR and its contents. Section 2.0 Comments and Responses to Written Comments: This section provides each written comment letter submitted by both public agencies and interested parties, and the responses to the comments (following each individual comment letter).
- Section 3.0 Errata: This section consists of minor text changes made to the DEIR as a result of comments raised during the public review process.
- Section 4.0 Site Plans: This section consists of the Projects 1 – 6's site plans.
- Section 5.0 Mitigation Monitoring and Reporting Program: This section includes the Mitigation Monitoring and Reporting Program (MMRP) that identifies the mitigation measures, the monitoring phase, and the applicable department or agency that is responsible for ensuring each recommended mitigation measure is implemented.
- Section 6.0 Appendix – Phase II ESA: This section consists of the Phase II Environmental Site Assessment studies that were done.
- Section 7.0 Appendix – CEQA Findings: This section consists of the CEQA Findings for Projects 1 – 6.

2.0 Public Comment letters and Response to Comments

2.1 Introduction

Section 15088 of the *CEQA Guidelines* requires that the Lead Agency evaluate comments on environmental issues received from persons and agencies that reviewed the DEIR and prepare a written response addressing each of the comments received. The response to comments may take the form of a separate section in the FEIR. In this case, the comments and responses are presented below. The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the substantive comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice.

Substantive comments should state a specific concern or question regarding the adequacy of the analysis contained in the DEIR. While comments that are general in nature are considered by the lead agency, a detailed response is not required pursuant to CEQA.

2.1.1 Section Organization

Section 2.2 Contains the list of numbered letters/emails with the sender's name, that corresponds to the order the letter/email appears below and the responses provided. This will facilitate individuals' search for responses to the comments they made. Section 2.3 provides topical responses to commonly commented upon topics in the DEIR. These topical responses will be referenced throughout the response to comments section. Section 2.4 provides a list of the letters and emails received and the name of the person who submitted it. The list of submittals is followed by a copy of each letter or email that was received with a corresponding table containing the responses to the substantive comments in the letter or email. Each letter and email has been bracketed to indicate the substantive comments made. Each bracketed comment is assigned a number, which corresponds to the response found in the Response Table that follows the letter or email.

Please note that oral comments provided at the Hearing Examiner Public Hearing held February 1, 2014, are contained within the Transcript of Public Testimony that begins at Comment Letter #9 and continues through Comment Letter #34 (these oral comments are technically not letters, but are numbered consecutively as they appear in the transcript).

2.2 List of Comment Documents and Commenters

The following list contains the designated Comment Letter number and the commenter who submitted it. This number corresponds to the responses provided for each substantive comment, as explained above.

Comment Letter Number	Author
Comment Letter 1	Oscar Ortiz
Comment Letter 2	Merrill Hampton
Comment Letter 3	Richard Skaggs
Comment Letter 4	Native American Heritage Commission
Comment Letter 5	Marvin Himlin
Comment Letter 6	Henry and Susan Hooyerink
Comment Letter 7	CURE/Adams Broadwell Joseph & Cardozo
Comment Letter 8	Department of Water Resources
Comment Letter 9	Michael Rives
Comment Letter 10	Robert Bailey
Comment Letter 11	David Paul
Comment Letter 12	Lester Legan
Comment Letter 13	Joseph Yore
Comment Letter 14	Beverly Bernacki
Comment Letter 15	Barbara Rogers
Comment Letter 16	Coralee Reuter
Comment Letter 17	Ed Rogers
Comment Letter 18	Susan Hooyerink
Comment Letter 19	Robert Kerkes
Comment Letter 20	Maureen Feller
Comment Letter 21	Carol Mackenzie
Comment Letter 22	Judy Watson
Comment Letter 23	Margaret Rhyne
Comment Letter 24	Robin Tarver
Comment Letter 25	Krisy Reuter
Comment Letter 26	Shindana Weathers
Comment Letter 27	Glenn Galloway
Comment Letter 28	Ginger Stout
Comment Letter 29	Jason Zink
Comment Letter 30	Mitch Klein
Comment Letter 31	Matthew Thomas
Comment Letter 32	John Dewar
Comment Letter 33	David Gomez
Comment Letter 34	Marshall Chance
Comment Letter 35	Judith Fuentes
Comment Letter 36	Margaret Rhyne
Comment Letter 37	Shahin Nourishad
Comment Letter 38	Antelope Valley Air Quality Management District
Comment Letter 39	Christina Caro
Comment Letter 40	Michelle Supple
Comment Letter 41	Margaret Rhyne
Comment Letter 42	Friends of Antelope Valley Open Space (FAVOS)
Comment Letter 43	Friends of Antelope Valley Open Space (FAVOS)
Comment Letter 44	Jim and Coralee Reuter

Comment Letter Number	Author
Comment Letter 45	Catalina and Vahid Bashash
Comment Letter 46	Bernie Walp and Elizabeth Bryan
Comment Letter 47	Lahontan RWQCB
Comment Letter 48	Susan Zahnter
Comment Letter 49	Krisy Reuter
Comment Letter 50	Brian Marsh

2.3 Topical Responses

These topical responses were prepared in response to comments that were provided by multiple commenters during the public review period. They represent the major themes the public identified in expressing their views about the DEIR. Where commenters provided more specific comments related to these same topics, individual responses were prepared to substantively address those specific comments.

2.3.1 Visual Simulations/Aesthetics

As noted in Section 4.1.1 Introduction, separate technical reports regarding visual resources were developed for each Project and are included in Appendix B-1. These analyses were conducted in conformance with CEQA documentation requirements and information provided in the Los Angeles County Environmental Checklist. The analyses consider potential impacts associated with scenic areas, scenic corridors, and other scenic resources from modification of the landscape. The assessments were based on field observations of each Project site and its surroundings, in addition to a review of maps, technical specifications of the proposed Project, aerial and ground-level photographs, and visual simulations of the Project. Please see the technical appendices in Appendix B-1 for additional information.

Section 4.1.3 Regulatory Setting, provides the County's requirements for evaluating impacts associated with aesthetics in conformance with CEQA.

As described in Section 4.1.5 Impact Analysis Methods, the protocols used to prepare the visual simulations were approved by the County as were the locations of the key observation points (KOPs) that the baseline photographs were taken from. The purpose of the simulations for each project as shown in Section 4.1.6.1 is to portray what the projects would potentially look like within the existing visual character of the overall landscape. The simulations developed for the project are sufficient for the purposes of the EIR and therefore, no additional simulations have been developed for this EIR.

As described in Section 4.1.5 Impact Analysis Methods, the simulations are one tool used in the overall analysis. The analysis of impacts relative to aesthetics is not based solely on the information the simulations provide. The viewshed analysis provides additional information relative to impacts to the overall landscape and the majority of sensitive receptors.

Mitigation measures are also developed in consideration of the landscape/viewshed and not on specific locations within that setting. As described in Section 4.1.7, mitigation in the form of vegetation screening in some areas along project boundaries complies with the County's requirements for the Landscape Plan required by the County. The landscaping plans are reviewed and approved by the

County Department of Regional Planning biologist. This and other mitigation measures will work in concert to minimize impacts to less than significant levels.

2.3.2 Zoning

Section 4.10.2.2.2 Zoning Designations states that, “As shown in Figure 4.10-2, Project 1 and its gen-tie line are zoned in the County as Light Agriculture (A-1), which does not permit electric generating plants within this zone. Since Project 1 and its gen-tie line are located within Zone A-1, a zone change from Zone A-1 to A-2 (Heavy Agriculture) will be required to construct and operate the SGF.” Project 1 is compatible with surrounding land uses. Adjacent properties to the west of the Project 1 site are similarly zoned A-2. Though adjacent properties to the north, east, and south are zoned A-1, they are currently vacant, fallow land.

As stated in Section 4.10.2.2.2, Projects 2 – 5 are located in areas zoned Heavy Agriculture (A-2). Pursuant to Section 22.24.150 of the Los Angeles County Code, “Electric distribution substations, electric transmission substations, and generating plants” are permissible uses within the A-2 Zone pursuant to the issuance of a CUP. Projects 2 – 5 will follow all applicable requirements of the Los Angeles County Code, and therefore will be consistent with the County Zoning Ordinance.

Project 6 is located in an area zoned Desert Mountain (D-2). Pursuant to Section 22.32.080 of the Los Angeles County Code, properties in Zone D-2 may be used for any use permitted in Heavy Agriculture Zone (A-2) (Section 4.10.2.2.2). Electric generating plants are permissible uses within the D-2 Zone, pursuant to the issuance of a CUP. Project 6 will follow all applicable requirements of the Los Angeles County Code, and therefore will be consistent with the County Zoning Ordinance.

Additionally, the Antelope Valley Areawide General Plan designates all six Project sites as N-1 Non-Urban use. The analysis in the DEIR references the current approved version of the Antelope Valley Areawide General Plan. According to the Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations (County of Los Angeles 1986). The proposed Projects are considered utility installations, and therefore would be consistent with the N-1 land use designation. As a result, the proposed Projects would be consistent with the General Plan Land Use designation (See Table 4.10-1 in Section 4.10.5.2 of the EIR). Development of the Projects will be consistent with permissible uses associated with the land use designations and the policies, goals, and objectives outlined in the Los Angeles County General Plan and the Antelope Valley Areawide General Plan.

2.3.3 Property Values

CEQA Guidelines Section 15131 (Economic and Social Effects) indicates that “*economic or social effects of a project shall not be treated as significant effects on the environment*. An analysis of how the proposed project may affect the value of individual properties would be speculative and is not required by CEQA (CEQA Guidelines Section 15454). Therefore, no response is provided for these comments. The comments are noted and will be incorporated into the project record.

2.3.4 Preservation of Rural Character

As stated in Table 4.10-1 in Section 4.10.5.2 of the DEIR, the current land use pattern in the Project area is vacant agricultural lands. Surrounding land uses include undeveloped and agricultural lands.

The land use designation for the Project sites as set forth by the current approved version of the Antelope Valley Areawide General Plan Land Use is Non-Urban (N-1). The Projects will be developed on zoned agricultural and desert mountain lands (A-1, A-2, and D-2). The A-2 and D-2 zoning designation allows alternative land uses such as the proposed Projects 2 through 5, with approval of a CUP. Additionally, the Project Applicant would apply for a zone change from A-1 to A-2 to allow development and conformance of the proposed Project 1. A complete summary of the proposed Projects' consistency with regional and local land use policies and ordinances is provided in Table 4.10-1 in Section 4.10.5.2.

In order to preserve the rural character within the Project area, the proposed Projects have been designed and mitigation measures have been developed so that impacts associated with noise, air emissions, and visual resources will be less than significant (see impacts and mitigation sections in 4.10, 4.3, and 4.1, respectively). The proposed Projects will generate renewable power in a passive manner with a minimal level of human presence. Additionally, the proposed Projects would be constructed and operated in accordance with mitigation measures developed to minimize impacts to sensitive receptors.

2.3.5 Water Supply

The recycled waste water option would use excess treated recycled water from the City of Lancaster or other available recycled water sources from the City of Palmdale or from the County of Los Angeles. The proposed use of reclaimed wastewater provided by the City of Lancaster Water Reclamation Plant or other above named available recycled water sources will not result in any impacts to any other current uses of recycled water. This water is currently reused for construction (as proposed here), irrigation for fodder crops, maintenance of wetland areas, and irrigation at parks. The tertiary treatment processes used will ensure that no health, environmental, or odor impacts will occur due to the proposed use of this water. The DEIR further explains the impacts associated with the proposed Projects 1 – 6 water consumption in section 4.14.5.4.

Site preparation will consist primarily of mowing of vegetation; mass site grading will not be utilized. Grading proposed on Projects 1 – 6 has been reduced to only the necessary areas such as the internal roads, retention basins, inverter pads and substation. The area between the solar panels will not be graded. The site preparation for the area under and between the solar panels would be mowed to reduce the need for water for dust suppression because the root structure of the plants will be kept intact and soil disturbance will be kept to a minimum.

Projects 1 – 6 would utilize a phased site preparation technique to reduce the amount of fugitive dust caused by the Projects and therefore reduce the amount of water needed through the mowing and much reduced grading techniques used. The current maximum short-term construction water supply estimates were conservatively based on a mass site grading approach rather than the mowing technique proposed and described in the EIR. 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 in Section 4.14 would result in lower actual water use than that estimated in the EIR.

2.3.6 Dust Control

Section 3.4.9 Site Preparation, describes the methods that will be used to prepare for installation of the PV panels. This includes the use of mowing for site preparation in conjunction with limited ground disturbing activities. Earth-moving will be limited only to areas necessary for the installation of roads and pads for equipment such as on-site substations, inverters and transformers. As shown in Table 3-3, the grading acreages, inclusive of staging areas, roads and equipment pad locations would be as follows: Project 1 would be 20.5 acres; Project 2 would be 12.9 acres; Project 3 would be 13.4 acres; Project 4 would be 26.4 acres; Project 5 would be 15.8 acres; and Project 6 would be 5.6 acres. All earth-moving activities will be conducted in compliance with AVAQMD Rule 403. Road-grade long-lasting palliatives such as calcium chloride or a comparable nontoxic product, or gravel, would be applied to control dust on graded interior roads and the Project staging areas, which would eventually be used for substation locations. Section 4.3.7 Air Quality, Mitigation Measures, addresses fugitive dust control. Specifically, mitigation measure AQ-2 states that watering will occur at least twice daily and mitigation measure AQ-11 states that earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour. Table 4.14-2, Silverado Power Water Estimates for Projects 1 – 6, includes water necessary to comply with Rule 403 and water more than three to four times per day if needed. The Dust Control Plan approval is required prior to issuance of the grading permit, per the Mitigation Monitoring and Reporting Program (MMRP).

The Fugitive Dust Mitigation Plan includes a description of efforts that will be implemented to maintain existing vegetation and a description of re-vegetation activities that will be implemented where vegetation clearing or grading occurs. Section 3.4.9 of the DEIR addresses site preparation. The mowing technique would be used in place of mass site grading to preserve below grade vegetation root systems. Following construction, the projects will utilize best management practices to re-established pre-existing vegetation or establish drought tolerant, native, or native compatible vegetation approved by the County biologist. This vegetation, in conjunction with the use of nontoxic soil stabilizers, will secure the topsoil and minimize dust generation to the greatest extent possible.

2.3.7 Valley Fever/Dust

Valley Fever, or coccidioidomycosis, is caused by the microscopic fungus coccidioides immitis (C. immitis), which grows in arid soil in parts of Los Angeles County and other parts of the U.S. Infection occurs when the spores of the fungus become airborne and are inhaled. The fungal spores become airborne when contaminated soil is disturbed by human activities, such as construction and agricultural activities, and natural phenomena, such as wind storms, dust storms, and earthquakes. Dispersion of dust from the Project would be controlled through implementation of the Fugitive Dust Mitigation Plan. Additionally, a summary of site preparation activities, mitigation measures, and the Fugitive Dust Mitigation Plan is provided in the paragraphs that follow.

Section 3.4.9 Site Preparation, describes the methods that will be used to prepare for installation of the PV panels. This includes the use of mowing for site preparation in conjunction with limited ground disturbing activities. Earth-moving will be limited only to areas necessary for the installation of roads and equipment. As shown in Table 3-3, the grading acreages, inclusive of staging areas, roads and equipment pad locations would be as follows: Project 1 would be 20.5 acres; Project 2 would be 12.9 acres; Project 3 would be 13.4 acres; Project 4 would be 26.4 acres; Project 5 would be 15.8 acres;

and Project 6 would be 5.6 acres. All earth-moving and earth disturbing activities will be conducted in compliance with AVAQMD Rule 403. Road-grade palliatives such as calcium chloride or a comparable nontoxic product would be applied to control dust on graded roads and other permanently graded substation and equipment pad areas.

Section 4.3.7 Air Quality, Mitigation Measures, addresses these concerns for fugitive dust control. Specifically, mitigation measure AQ-2 states that watering will occur at least twice daily and mitigation measure AQ-11 states that earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour. Table 4.14-2, Silverado Power Water Estimates for Projects 1 – 6, includes water necessary to comply with Rule 403 and water more than three to four times per day if needed. The Dust Control Plan approval is required prior to issuance of the grading permit, per the Mitigation Monitoring and Reporting Program (MMRP).

The Fugitive Dust Mitigation Plan includes a description of efforts that will be implemented to maintain existing vegetation and a description of re-vegetation activities that will be implemented where vegetation clearing or grading occurs. Section 3.4.9 of the EIR addresses site preparation. The mowing technique would be used for the ungraded array locations to preserve below grade vegetation root systems.

2.3.8 Cadmium Telluride Containing Photovoltaic Panels

As noted in Section 4.8.2.6 of the EIR, the photovoltaic (PV) panel technology to be used in the construction of Projects 1 – 6 will be determined at the time of Project construction, and may include crystalline silicon or thin-film cadmium telluride (CdTe) type panels. There are potential environmental health and safety concerns associated with the use of cadmium-containing PV panels. Elemental cadmium (Cd), which forms CdTe when reacted with tellurium (Te), is a lung carcinogen, and can cause detrimental effects on kidney and bone with long-term exposure (Fthenakis and Zweibel 2003).

According to a 2003 report from the National Renewable Energy Laboratory, the only pathways for human exposure to CdTe are via ingesting flakes or dust particles, or inhaling dust and fumes. In PV panels, the CdTe layers are encapsulated between layers of glass, and are therefore stable. Unless the module is purposely ground into a fine dust, dust particles will not be generated. Preliminary studies have indicated that CdTe releases are unlikely to occur during accidental breakage. In the event that a panel is cracked or broken, it will be immediately removed and transported to an appropriate facility for recycling.

In the case of a fire, CdTe may pose an increased health risk. The melting point of CdTe is 1041°C, and evaporation starts at 1050°C. The thin layers of CdTe are encapsulated between glass plates, which would be molten at these temperatures, an unlikely event.

2.3.9 Biological Resources

Section 4.4 of the EIR is consistent with the substantive provisions of California Environmental Quality Act and the information contained in the subject section only provides a summary of technical data, maps, and similar relevant information which is detailed within Volume 2, Biological Appendices. Section 4.4 provides sufficient detail to permit an assessment of the significant environmental consequences of the proposed Project by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of this section was avoided through

the use of the aforementioned technical appendices. Where potential impacts to biological resources have been identified within this section, implementation of specific measures have been identified to avoid, minimize, and offset adverse effects to a less than significant level within subsection 4.4.8 Mitigation Measures.

Please also note that the Project will affect substantially less than 0.1% of the Antelope Valley, and while the Projects consist of approximately 987-acres; that acreage consists of a predominately depauperate landscape (i.e., bare ground, disturbed salt bush scrub habitats, non-native grasslands, and developed lands). The Projects' lands are generally limited in the total number and variety of plant and wildlife species, and lacks high biomass density and biological diversity. Furthermore, no suitable Swainson's hawk foraging habitat was observed within The Projects' limits. No alfalfa, hay, or other irrigated agricultural lands were detected within the Projects' Sites. Irrigated agricultural lands (e.g., alfalfa and hay) are widely recognized as an essential element of viable Swainson's hawk foraging habitat within the Antelope Valley, and hawks - as well as other species of raptors, are highly dependent upon it to support their prey items. Irrigated agricultural lands support the abundant small mammal (i.e., pocket gophers and voles) and invertebrate prey base (i.e., grasshoppers) that birds of prey need to subsist.

Nonetheless, the Applicant intends to mitigate and offset potential adverse effects to the biological resources by implementing the following mitigation measures which are summarized below, but detailed within Section 4.4.8.1 of the EIR:

- ✓ The Applicant will provide vegetative buffers along certain portions of the perimeters of the project sites to provide additional nesting and foraging habitat to small mammals and increase the prey base for raptors;
- ✓ Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant and approved by Los Angeles County and the California Department of Fish and Wildlife. This individual shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct pre-activity field surveys for biological resources;
- ✓ Pre-construction surveys will be performed for special-status species identified as having the potential to be present at the project sites (i.e., badger, kit fox, southern grasshopper mouse, burrowing owl, Swainson's hawk, etc.);
- ✓ A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Project. If Swainson's hawks or their active nests are located within 500 feet of the project, all construction-related work shall be postponed and California Department of Fish and Wildlife will be consulted;
- ✓ From February 1 through August 31, Project activities will be overseen by a biologist which is responsible for conducting regular passerine and raptor census activities;
- ✓ If an active bird nest is discovered, disturbance within 500 feet shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing;
- ✓ Burrowing owl surveys have been performed, and pre-construction surveys shall be conducted prior to grading. Owl surveys, avoidance and minimization efforts proposed for the Project are consistent with those set forth by the California Burrowing Owl Consortium and California Department of Fish and Wildlife (1993 and 2012);

- ✓ Pre-construction surveys shall be performed for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Any special-status reptiles or other species determined important by the qualified biological monitor occurring within the Project limits shall be collected and relocated to areas outside of the designated work zones;
- ✓ During grading, earthmoving activities, and other construction activities a biological monitor shall be present to inspect and enforce all mitigation requirements. The biological monitor shall be authorized to stop specific grading or construction activities if violations of mitigation measures or any local, state, or federal laws are suspected;
- ✓ Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily.
- ✓ Mitigation land will be provided based on the quality of the land relative to the impacted habitat and formally approved by Los Angeles County and California Department of Fish and Wildlife prior to acquisition and initiating ground-disturbing activities;
- ✓ Prior to alteration of any bed, bank or channel of on-site water conveyance features the Applicant has elected to enter into an agreement with the California Department of Fish and Wildlife, pursuant to Sections 1601 through 1603 of the State Fish and Game Code; and
- ✓ Within all interior portions of the Project, within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished with local seed from native species to the maximum extent practical.

As such, the Project as described is not expected to result in a trend toward additional federal/State protection, loss of viability, or to substantially modify regional habitat availability for any common or special status species. With the implementation of measures summarized above and detailed within Section 4.4.8.1 of the EIR, the Project's overall impact on the environment is less than significant.

This Project complies with all applicable codes, laws, ordinances, and regulations to minimize or avoid adverse effects to biological resources, functional plant and wildlife habitats, and special status species to the greatest extent practical. Any other planned future projects in the area would also be required to comply with the same local, state, and federal codes, ordinances, laws, and other required regulations. Therefore, this Project's incremental contribution to cumulative effects is not considerable. The Project would result in unavoidable impacts to biological resources. However, implementation of the compensatory mitigation outlined within Section 4.4, and compliance with applicable codes, ordinances, laws, and other required regulations reduces the magnitude of any effects to a less than significant level.

2.3.10 Cell phone Interference

The design, installation, and operation of the facility will comply with all applicable local, state, and national electrical codes which ensure the safety and protection of local residents and the public at large. Additionally, all electrical design and installation will be subject to review and inspection by Los Angeles County. Therefore, project construction and operation are not expected to impact cell phone service.

2.4 Response to Comments

The following section includes a copy of the comment letter containing brackets that indicate where substantive comments in the letter are. Each bracketed comment is numbered. Following the letter is a table that contains the responses to each numbered comment contained in the letter. Where appropriate, a previous response that appears earlier in the section may be referenced in response to a recurring comment. The topical responses above may also be referenced as a response to particular recurring comments.

Comment Letter 1 – Oscar Ortiz

From: Carmelo Ortiz [mailto:smktet@hotmail.com]
Sent: Monday, January 06, 2014 11:56 PM
To: DRP Special Projects
Subject: disagree with the solar project 4 -antelope solar greeworks

To whom it may concern:

I'm a land owner in the antelope acres area right across the street from the project -4 in J ave and 86th st w and i'm struggling to keep my property (my life savings) hopping that some day i would build a beautiful house in the valley (not next to solar panels) I specifically bought this property in a residential area not in an industrial zoning how could you guys do those changes with out considering. the zoning. 1-1

in that case am I allow to place my own solar panels and sell electricity just like they are doing so I have the resources to race my own capital if so let me know so I start building my own solar farm.

you guys should go farther away from the city of Lancaster to do this large projects is going to devalue the price of the properties all over the antelope residential area. 1-2

this is not an environmentally sound idea so close to the city go 10 miles away from the view of the residents. 1-3

my name is Oscar Ortiz my ph # 562 505 7526 my email smktet@hotmail.com

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
1 – Ortiz	1-1	Section 4.10	See Topical Response 2.3.2 Zoning, presented above.
	1-2		See Topical Response 2.3.3 Property Values, presented above.
	1-3	4.1	Section 4.1.3 Regulatory Setting, provides the County's requirements for evaluating impacts associated with aesthetics in conformance with CEQA. Mitigation measures are developed in consideration of the landscape/viewshed. As described in Section 4.1.7, mitigation in the form of vegetation screening in some areas along project boundaries complies with the County's requirements for the Landscape Plan required by the County. The plans have been reviewed and accepted by the County Department of Recreation and Parks. This mitigation measure one of several that will work in concert to minimize impacts to less than significant levels.

Comment Letter 2 – Merrill Hampton

From: Merrill Hampton [mailto:merrillhampton@gmail.com]
Sent: Wednesday, January 08, 2014 4:05 PM
To: DRP Special Projects
Subject: Antelope solar Greenworks Project #4

Attn: Ms. Blengini:
I own 2.5 acres of property on the NW corner of 95th & "I" streets, in Lancaster. Although there were no significant environmental effects apparent for the projects, I have concern regarding the effect it will have on resale property values in the area. 2-1
Please let me know how this project will appear lfrom the street after completion, and what effect it will have on the sale of my 2.5 acres 2-2

Sincerely,
Merrill L. Hampton - phone no. 805-241-2597
email: <merrillhampton@gmail.com>

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
2 – Hampton	2-1		See Topical Response 2.3.3 Property Values, presented above.
	2-2	4.1	See Topical Response 2.3.1 Visual Simulations/Aesthetics, presented above.

Comment Letter 3 – Richard Skaggs

From: richard.skaggs@sbcglobal.net [mailto:richard.skaggs@sbcglobal.net]
Sent: Saturday, January 11, 2014 5:41 AM
To: DRP Special Projects
Subject: Re: Notice of Completion and Availability and Notice of Hearing Examiner Hearing: Silverado Power West, Los Angeles County - Six Solar Photovoltaic Projects

thank you very much, for the information I will pass it on to the residence in our area Richard Skaggs

From my Android phone on T-Mobile. The first nationwide 4G network.

----- Reply message -----
From: "DRP Special Projects" <specialprojects@planning.lacounty.gov>
To: "richard@lozeaudrury.com" <richard@lozeaudrury.com>, "christina@lozeaudrury.com" <christina@lozeaudrury.com>, "stacey@lozeaudrury.com" <stacey@lozeaudrury.com>, "brobinson@iwvisp.com" <brobinson@iwvisp.com>, "abrierty@snamanuel-nsn.gov" <abrierty@snamanuel-nsn.gov>, "warmoose@earthlink.net" <warmoose@earthlink.net>, "ndnRandy@yahoo.com" <ndnRandy@yahoo.com>, "Ronald Andrade" <RAndrade@css.lacounty.gov>, "Tsen2u@hotmail.com" <Tsen2u@hotmail.com>, "Rsalas@tataviam-nsn.gov" <Rsalas@tataviam-nsn.gov>, "deedominguez@juno.com" <deedominguez@juno.com>, "Folkes@msn.com" <Folkes@msn.com>, "margaretrhyne@yahoo.com" <margaretrhyne@yahoo.com>, "avengineering@verizon.net" <avengineering@verizon.net>, "jani_email@yahoo.com" <jani_email@yahoo.com>, "djanik@aol.com" <djanik@aol.com>, "shared.oconnor@me.com" <shared.oconnor@me.com>, "terrie4567@aim.com" <terrie4567@aim.com>, "3pointsliebremountain@gmail.com" <3pointsliebremountain@gmail.com>, "ontishima1775@gmail.com" <ontishima1775@gmail.com>, "loconnor@ucla.edu" <loconnor@ucla.edu>, "jdbru123@gmail.com" <jdbru123@gmail.com>, "onniee@aim.com" <onniee@aim.com>, "margaretrhyne@yahoo.com" <margaretrhyne@yahoo.com>, "tattnlaw@gmail.com" <tattnlaw@gmail.com>,

"richard.skaggs@sbcglobal.net" <richard.skaggs@sbcglobal.net>, "steve.u.chung@navy.mil" <steve.u.chung@navy.mil>, "info@osotc.com" <info@osotc.com>, "fairmont@antelecom.net" <fairmont@antelecom.net>, "info@aveconomy.org" <info@aveconomy.org>, "avg@angeles.sierraclub.org" <avg@angeles.sierraclub.org>, "nelsonacres3@yahoo.com" <nelsonacres3@yahoo.com>, "administrator@tataviam-msn.us" <administrator@tataviam-msn.us>, "cheryl_j_powell@dot.ca.gov" <cheryl_j_powell@dot.ca.gov>, "Syndi.Pompa@conservation.ca.gov" <Syndi.Pompa@conservation.ca.gov>, "info@climateregistry.org" <info@climateregistry.org>, "jdbru123@gmail.com" <jdbru123@gmail.com>
Cc: "DRP Special Projects" <specialprojects@planning.lacounty.gov>
Subject: Notice of Completion and Availability and Notice of Hearing Examiner Hearing: Silverado Power West, Los Angeles County - Six Solar Photovoltaic Projects
Date: Tue, Jan 7, 2014 1:32 pm

Good Morning,

Attached is the Notice of Completion and Availability of an Environmental Impact Report (EIR) and Notice of Hearing Examiner Public Hearing for six proposed solar photovoltaic electricity generation facilities in the West Antelope Valley. This notice is to inform you of a Hearing Examiner Public Hearing in which public comments may be made regarding the contents of the EIR for the six solar projects. No decision on the projects are made at the Hearing Examiner Public Hearing. Attached is the notice to inform you of the date, time, and place of the hearing.

Sincerely,

Kim Szalay

Mr. Kim K. Szalay, MPL, AICP
Principal Planner
Special Projects Section
Department of Regional Planning
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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
3 – Skaggs			The comment is noted and will be incorporated into the project record.

Comment Letter 4 – Native American Heritage Commission

SATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916) 373-3715
Fax (916) 373-5471
Web Site www.nahc.ca.gov
Ds_nahc@pacbell.net
e-mail: ds_nahc@pacbell.net

RECEIVED
JAN 21 2014
BY:

January 15, 2014

Ms. Carolina Blengini, Project Planner
Los Angeles County Department of Regional Planning
320 W. Temple Street, Room 1362
Los Angeles, CA 90012

RE: SCH#2012061068 CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the **"Siverado Power West Los Angeles Project;"** located in the in the southwestern Antelope Valley, near the City of Lancaster; Los Angeles County, California

Dear Ms. Blengini:

The Native American Heritage Commission (NAHC) has reviewed the above-referenced environmental document.

The California Environmental Quality Act (CEQA) states that any project which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064.5(b). To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, pursuant to California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities. Also, California Public Resources Code Section 21083.2 require documentation and analysis of archaeological items that meet the standard in Section 15064.5 (a)(b)(f). 4-1

We suggest that this (additional archaeological activity) be coordinated with the NAHC, if possible. The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. Any information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure pursuant to California Government Code Section 6254.10. 4-2

A list of appropriate Native American Contacts for consultation concerning the project site has been provided and is attached to this letter to determine if the proposed active might impinge on any cultural resources.

California Government Code Section 65040.12(e) defines "environmental justice" to provide "fair treatment of People…with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies." (The California Code is consistent with the Federal Executive Order 12898 regarding 'environmental justice.' Also, applicable to state agencies is Executive Order B-10-11 requires consultation with Native American tribes their elected officials and other representatives of tribal governments to provide meaningful input into the development of legislation, regulations, rules, and policies on matters that may affect tribal communities.

Lead agencies should consider first, avoidance for sacred and/or historical sites, pursuant to CEQA Guidelines 15370(a). Then if the project goes ahead then, lead agencies include in their mitigation and monitoring plan provisions for the analysis and disposition of recovered artifacts, pursuant to California Public Resources Code Section 21083.2 in consultation with culturally affiliated Native Americans. 4-3

Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. 4-4

Sincerely,

Dave Singleton
Program Analyst

CC: State Clearinghouse

Attachment: Native American Contacts list

Native American Contacts
Los Angeles County California
January 15, 2014

Beverly Salazar Folkes
1931 Shadybrook Drive
Thousand Oaks, CA 91362
folkes9@msn.com
805 492-7255
(805) 558-1154 - cell
folkes9@msn.com

Chumash
Tataviam
Ferrnandeño

Fernandeno Tataviam Band of Mission Indians
Larry Ortega, Chairperson
1019 - 2nd Street, Suite #1
San Fernando CA 91340
(818) 837-0794 Office

(818) 837-0796 Fax

Fernandeno
Tataviam

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th St, Rm. 403
Los Angeles, CA 90020
randrade@css.lacounty.gov
(213) 351-5324
(213) 386-3995 FAX

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street
Bakersfield, CA 93305
deedominguez@juno.com
(626) 339-6785

Yowlumne
Kitanemuk

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838
Newhall, CA 91322
tsen2u@hotmail.com
(661) 753-9833 Office
(760) 885-0955 Cell
(760) 949-1604 Fax

Fernandeño
Tataviam
Serrano
Vanyume
Kitanemuk

Randy Guzman - Folkes
4676 Walnut Avenue
Simi Valley, CA 93063
ndnRandy@yahoo.com
(805) 905-1675 - cell
(805) 520-5915-FAX

Chumash
Fernandeño
Tataviam
Shoshone Paiute
Yaqui

San Manuel Band of Mission Indians
Daniel McCarthy, M.S.., Director-CRM Dept.
26569 Community Center. Drive
Highland, CA 92346
(909) 864-8933, Ext 3248
dmccarthy@sanmanuel-nsn.gov
(909) 862-5152 Fax

Serrano

Kern Valley Indian Council
Robert Robinson, Co-Chairperson
P.O. Box 401
Weldon, CA 93283
brobinson@iwvisp.com
(760) 378-4575 (Home)
(760) 549-2131 (Work)

Tubatulabal
Kawaiisu
Koso
Yokuts

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

his list s only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2012061068; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the Silverado Power Photo Voltaic Solar Project; located near the City of Lancaster; northeastern Los Angeles County, California.

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
4 – NAHC	4-1	4.5.3	Section 4.5.3 Regulatory Setting, addresses these concerns. Section 4.5.7 Mitigation measures, CUL-1 through CUL-5 and PALEO-1 address these concerns.
	4-2	4.5.7.1	Section 4.5.7.1 Cultural Resources Mitigation Measures, addresses these concerns. Specifically CUL-1 and CUL-2.
	4-3	4.5.7	The list of contacts has been updated to reflect what was provided. Please see MMRP attached to this FEIR or mitigation measures in section 4.5.7 for provisions of recovered artifacts.
	4-4	4.5.7	Please see response to comment 4-1.

Comment Letter 5 – Marvin Himlin

From: Marvin Himlin [mailto:marvin@himlinrealty.com]
Sent: Thursday, January 23, 2014 3:37 PM
To: DRP Special Projects
Subject: Solar Projects information

Good afternoon, I am in receipt of the information and CD pertaining to Silverado Power West Los Angeles County Project and wish to inform you of my new mailing address and contact information as described below.

I do wish to continue receiving related information to Solar PV projects in the Antelope Valley.

Should you have any questions, please do not hesitate to contact me.

Thank you,

Marvin Himlin, GRI
Realtor/Broker
BRE 00312024

Himlin Realty & Investments
41770 12th Street West, Suite E
Palmdale, CA 93551

(661) 948-8596 Bus.
(661) 948-8767 Fax
(661) 810-5887 Cell

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
5 – Himlin			The comment is noted and will be incorporated into the project record.

Comment Letter 6 – Henry and Susan Hooyerink

Mr. Henry Hooyerink

Mrs. Susan R. Hooyerink

45120 95th Street West

Lancaster, California 93536

RECEIVED
FEB 03 2014
BY:

Ms Carolina Blengini

Los Angeles County Department of Regional Planning

Special Projects Section, Room 1362

320 West Temple Street

Los Angeles, California 90012

Dear Ms. Blengini,

After examining the DEIR for The Silverado Power West, Los Angeles County Project, County Project Numbers, R2011-00833, 00798, 00799, 00807, 00801, 00805, Conditional Use Permits Numbers, 201100079, 70, 71, 76, 72, 74, Zone Change Number 201100005 and Environmental Review Number, 201100109, it has become evident that there are several issues with the DEIR that need to be addressed.

First and foremost is the erroneous conclusion that construction and operation impacts of the proposed Project 4 would be "less than significant with mitigation". Aesthetically speaking, the mitigation measures (A-4) consisting of a 10ft. wide vegetative buffer along roadways; West Avenue I, portions of 95th Street West and West Avenue J, are woefully inadequate. Under Section 4.1.6.4.4 – Project 4 – Construction Impacts; it is stated that viewers such as nearby residents and travelers on West Avenue I will still experience views of open desert lands around the project site after the Solar Facility is constructed". Figure 4.1-35 of the DEIR is used as a photographic-simulation to illustrate the views as related to Project 4 before and after construction. These are misleading photographs of the proposed site and views as the photographs were taken more than a ½ mile to the east and north of the proposed Project 4 location. According to the DEIR, "even where visible, the proposed Project components will not dominate the landscape unless the viewer was directly adjacent to the facility'. This dominance of the landscape is precisely our objection, as our residence, at 45120 95th Street West, is directly adjacent to portions of Project 4. 6-1

To illustrate a more accurate depiction of the views of Project 4, we have included photographs of the current views from 95th Street West looking southwest and a photographic simulation of that same view after completion of proposed Project 4 per the DEIR. 6-2

For the record, it is curious that no photographic depiction of 95th Street West was included in the DEIR, but photographs from 8 miles away at Quartz Hill's Los Hermanos subdivision were included.

(2)

Additionally, stated in the DEIR under section 6.5- Irreversible Impacts;" there are no irreversible impacts attributed to the construction or operation of these Projects Sites". We refute this conclusion because the stated operational life of the Solar Facilities is 35 years. Both my husband and I are in our 60's. Therefore, an assumption can be reached that we will experience the negative aesthetic impact for the rest of our lives if Project 4 is completed as proposed. With the completion of Project 4 as proposed in the DEIR, our property values will certainly plummet, prohibiting the sale of our property at a sum that would make possible the purchase of a similar property elsewhere, allowing us to continue to enjoy our horses and rural lifestyle. 6-3

The proposed Project 4 SGF Design diagram (figure 3-10a) shows an 8ft. perimeter fence around the project. This fence crosses the southern extension of 95th Street West. This is troublesome as there is no way to access the open land that is currently used for walking and horseback riding west of Project 4 without using paved roadways, an undesirable alternative. It must be noted that 95th Street West was a through road from West Avenue J north to West Avenue I prior to heavy grading by a large agricultural firm that leased the land west of 95th Street West to grow carrots. The road bed was interrupted by massive irrigation ditches built to contain runoff water. 6-4

The destruction of our lifestyle and the loss of value to our property demands further mitigation. Silverado Power should address the impact to the residences surrounding Project 4, whether that is with monetary compensation for loss of lifestyle, choosing not to develop the parcels adjacent to 95th Street West or by extending the buffer to at least 600 feet along 95th Street West. A 10ft. low vegetative buffer will not mitigate the aesthetic damage done if Project 4 is completed as proposed. 6-5

Further, Solar Project 4 includes a discrepancy between the proposed route of water delivery from the City of Lancaster and the map included to illustrate the route. Figure 4.13-7 and 4.13-8 show the water truck route heading due west from the Antelope Valley Freeway, out West Avenue H to 110th Street West. Then south on 110th Street West to West Avenue I to the Project site. But West Avenue H is not a through or paved road west of approximately 92nd Street West and no mention of paving West Avenue H is made in the DEIR 6-6

In conclusion, the Los Angeles County Department of Regional Planning needs to further evaluate and amend the proposals of Silverado Powers Project 4 as stated in the DEIR. There are obvious misrepresentations of the impacts to aesthetics. "Less than significant with mitigation" is not achievable with the mitigation measures documented. 6-7

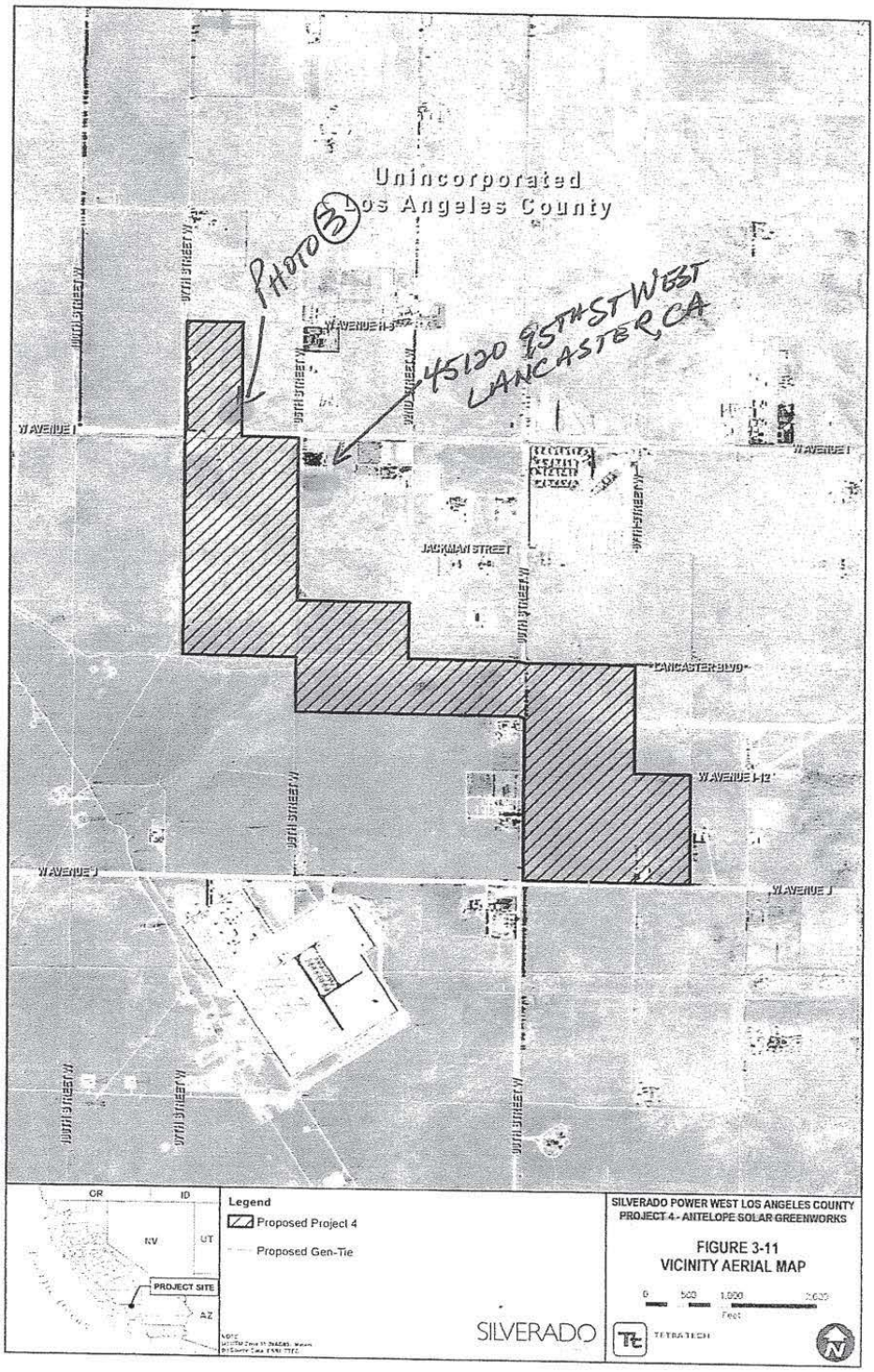
The DEIR states that "the projects are not dependent on each other for success. Each project can succeed as a stand alone project if the other projects are not approved by the County…" (pg. 3-5). Project 4 as proposed should not be developed. 6-8

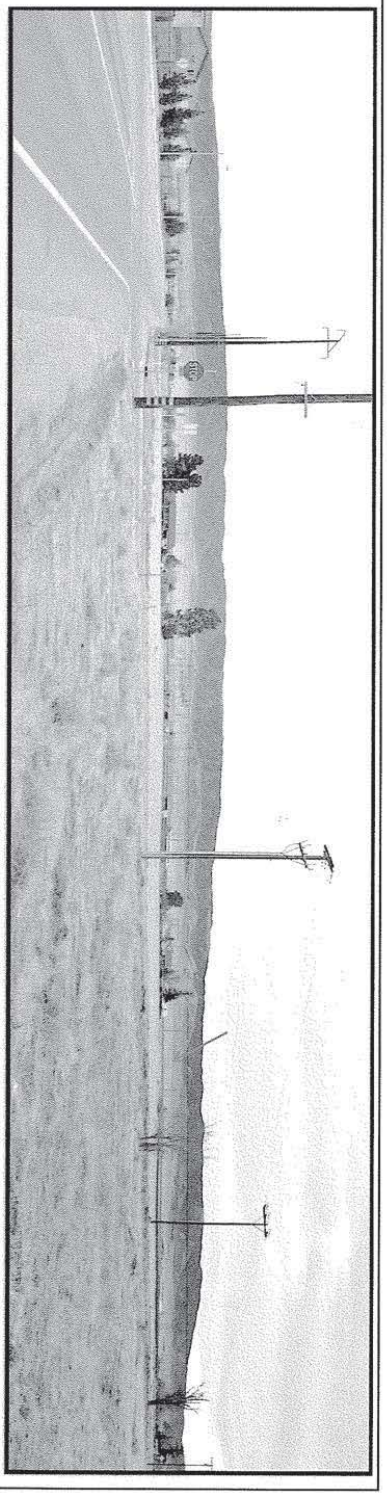
Respectfully,

Henry Hooyerink Susan R. Hooyerink

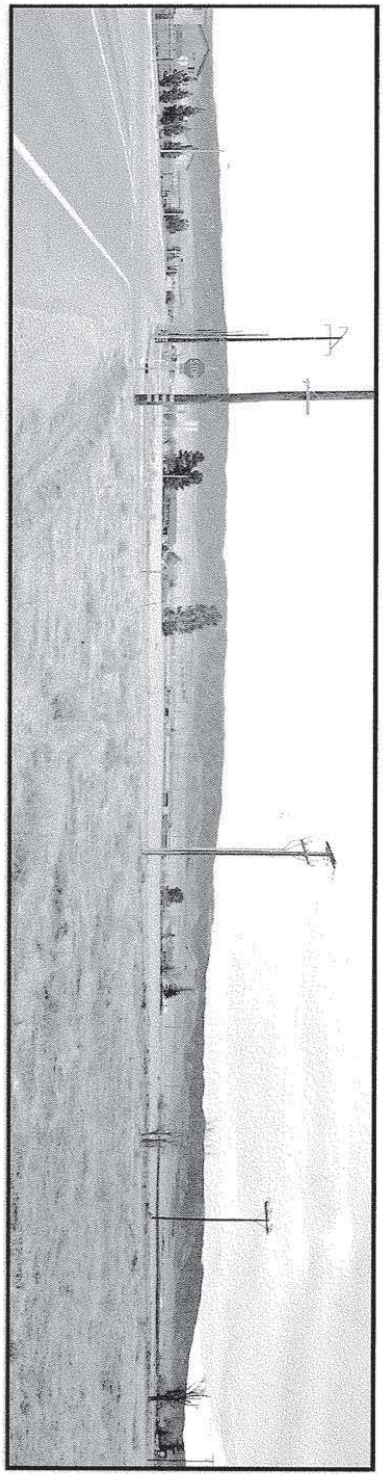
Henry Hooyerink

Susan R. Hooyerink


Unincorporated
Los Angeles County
PHOTO 3
45120 95TH ST WEST
LANCASTER, CA
95TH STREET W
W AVENUE I
W AVENUE I-12
JACKMAN STREET
LANCASTER BLVD
W AVENUE J
OR
ID
NV
UT
AZ
PROJECT SITE
Legend
Proposed Project 4
Proposed Gen-Tie
SILVERADO
SILVERADO POWER WEST LOS ANGELES COUNTY
PROJECT 4 - ANTELOPE SOLAR GREENWORKS
FIGURE 3-11
VICINITY AERIAL MAP
Feet
TETRA TECH



Simulation. Post-construction photographic simulation from the southbound lane of 90th Street West.

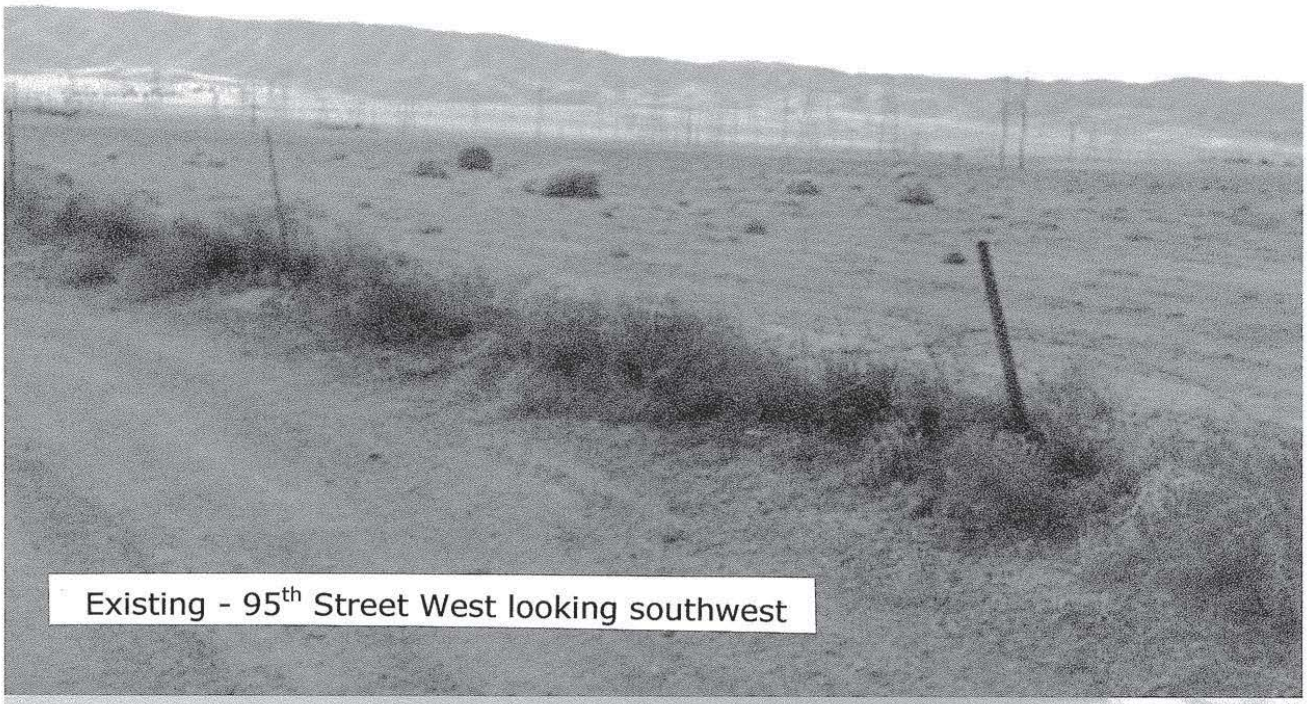


Existing. Existing conditions from the southbound lane of 90th Street West.

Silverado Power – Project 4

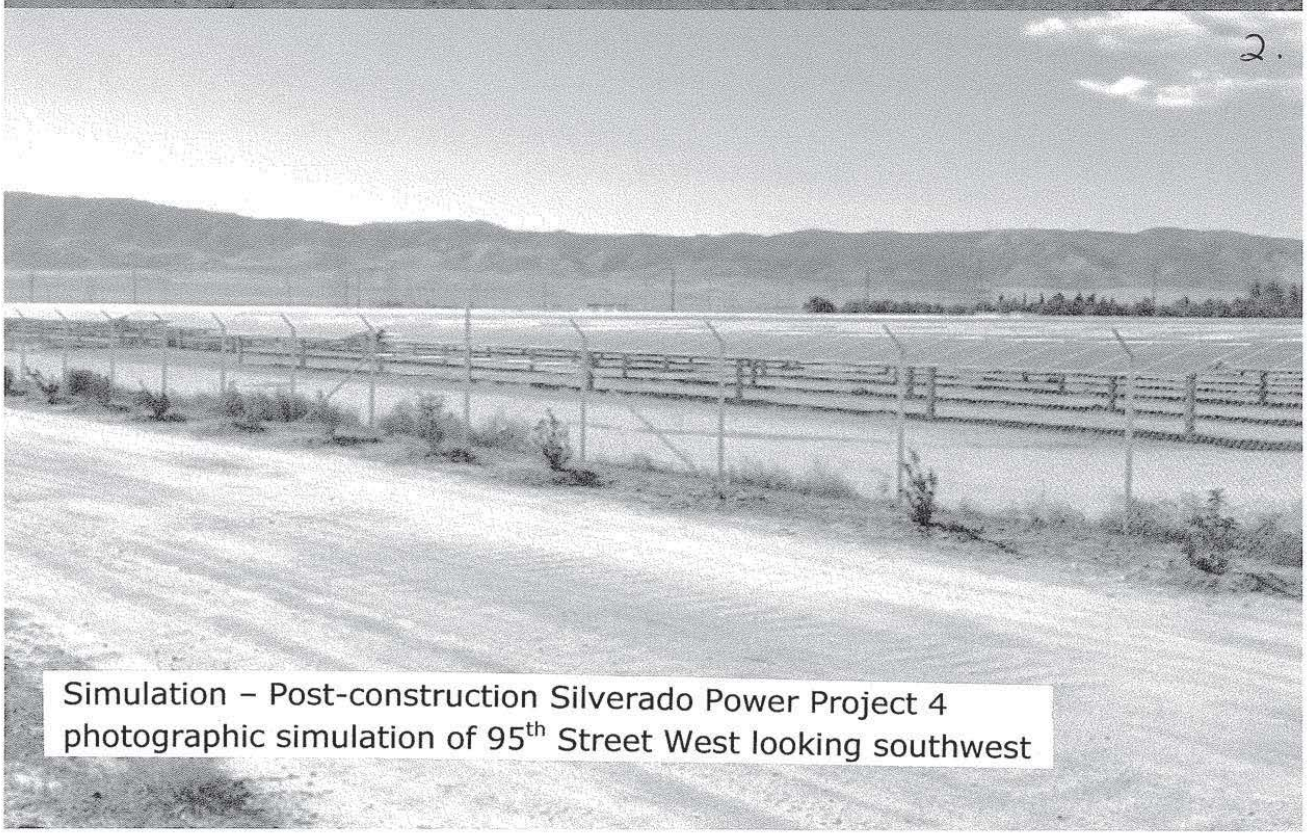
Figure 4.1-35 Project 4 Photo Simulation

1.



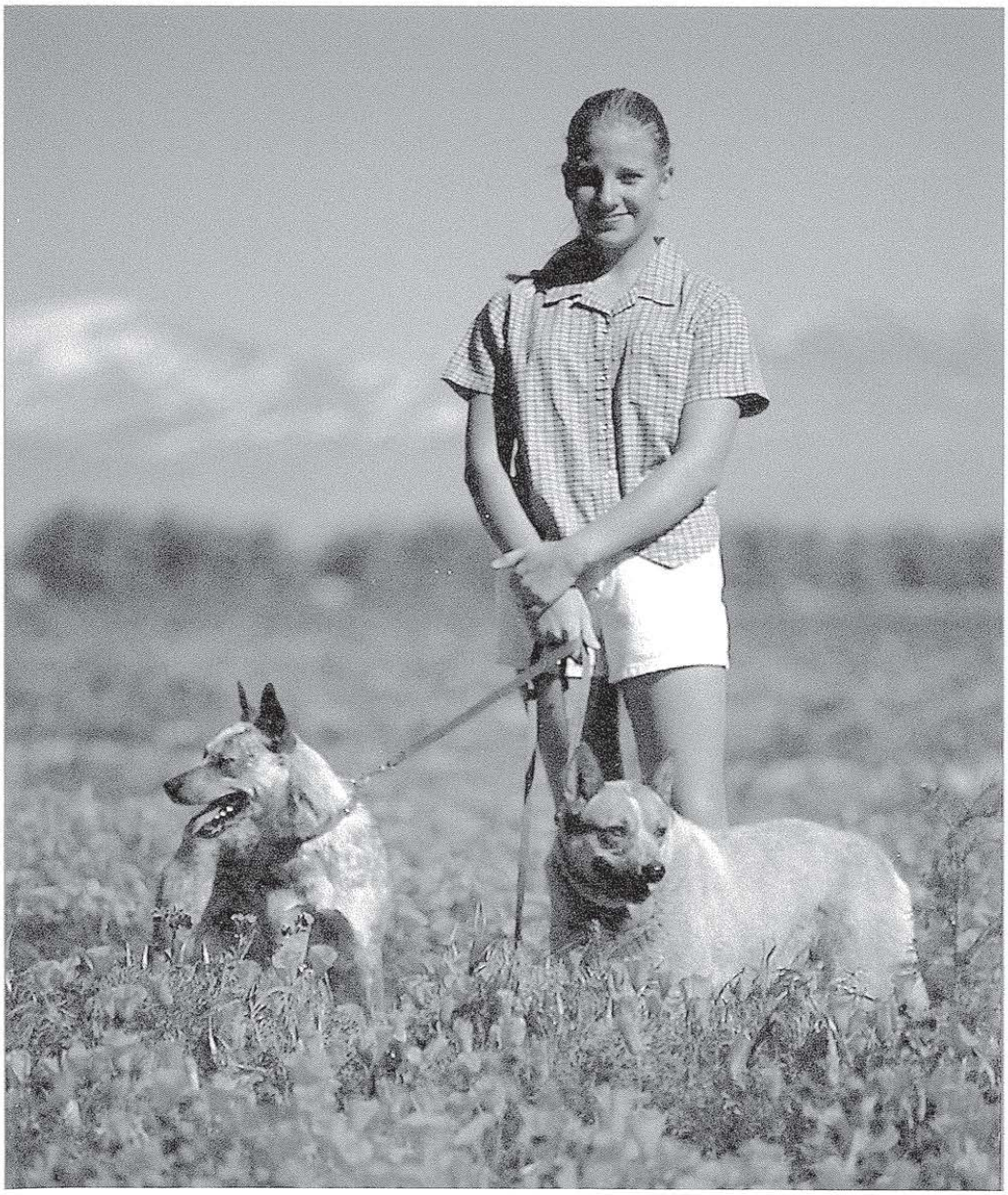
Existing - 95th Street West looking southwest

2.

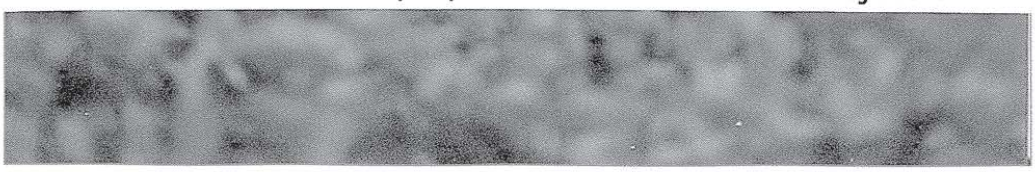


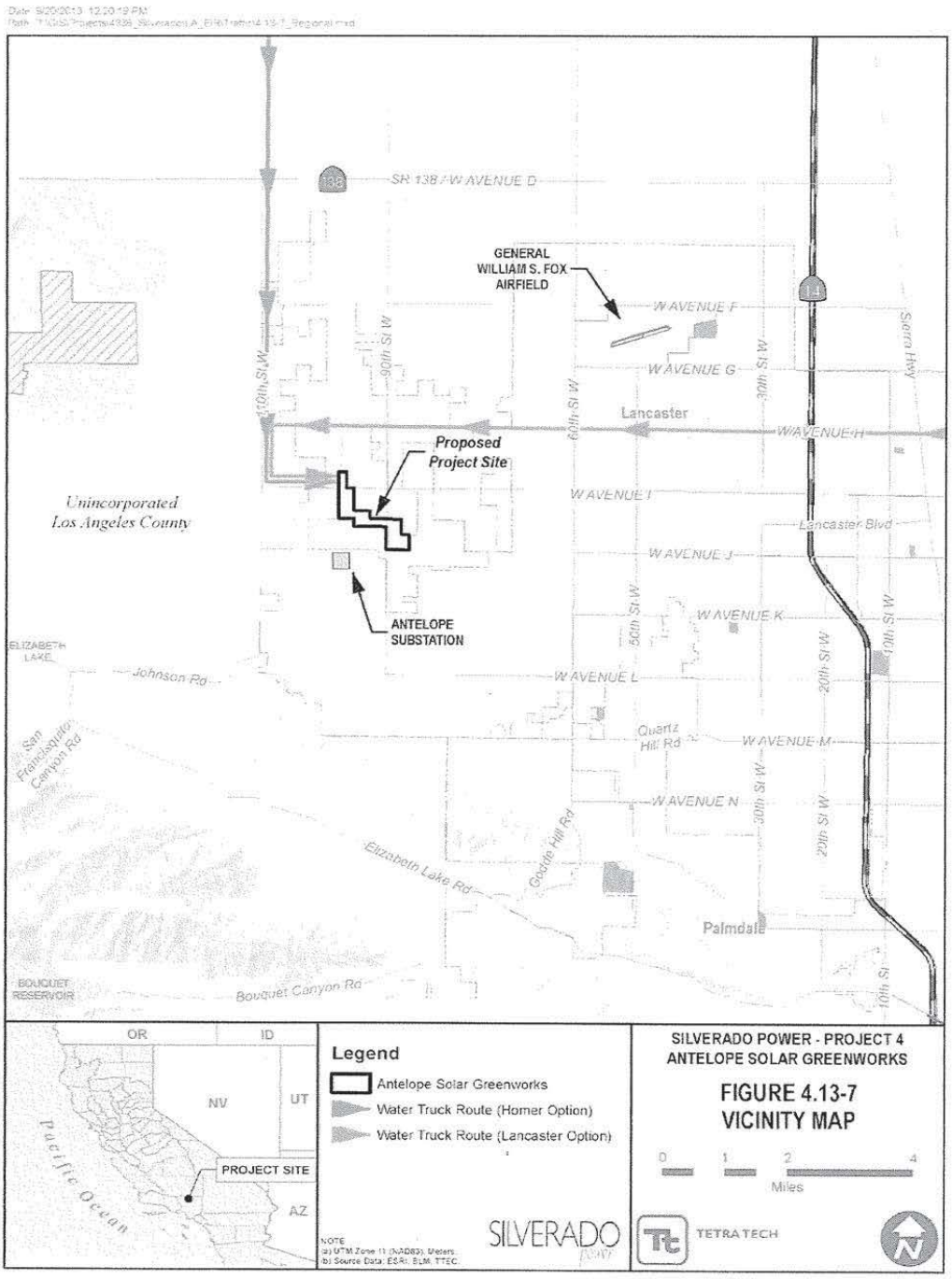
Simulation – Post-construction Silverado Power Project 4 photographic simulation of 95th Street West looking southwest

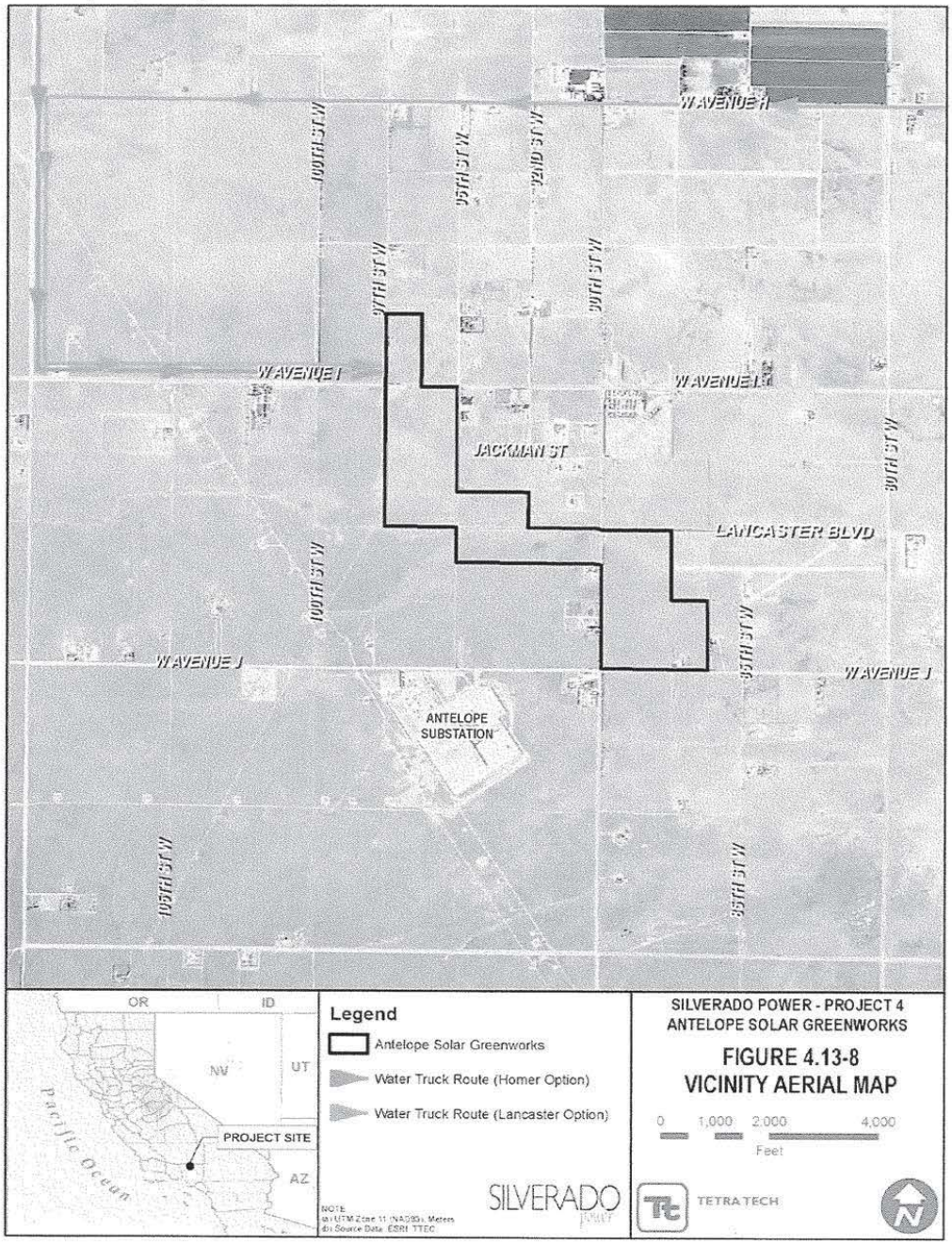
3.

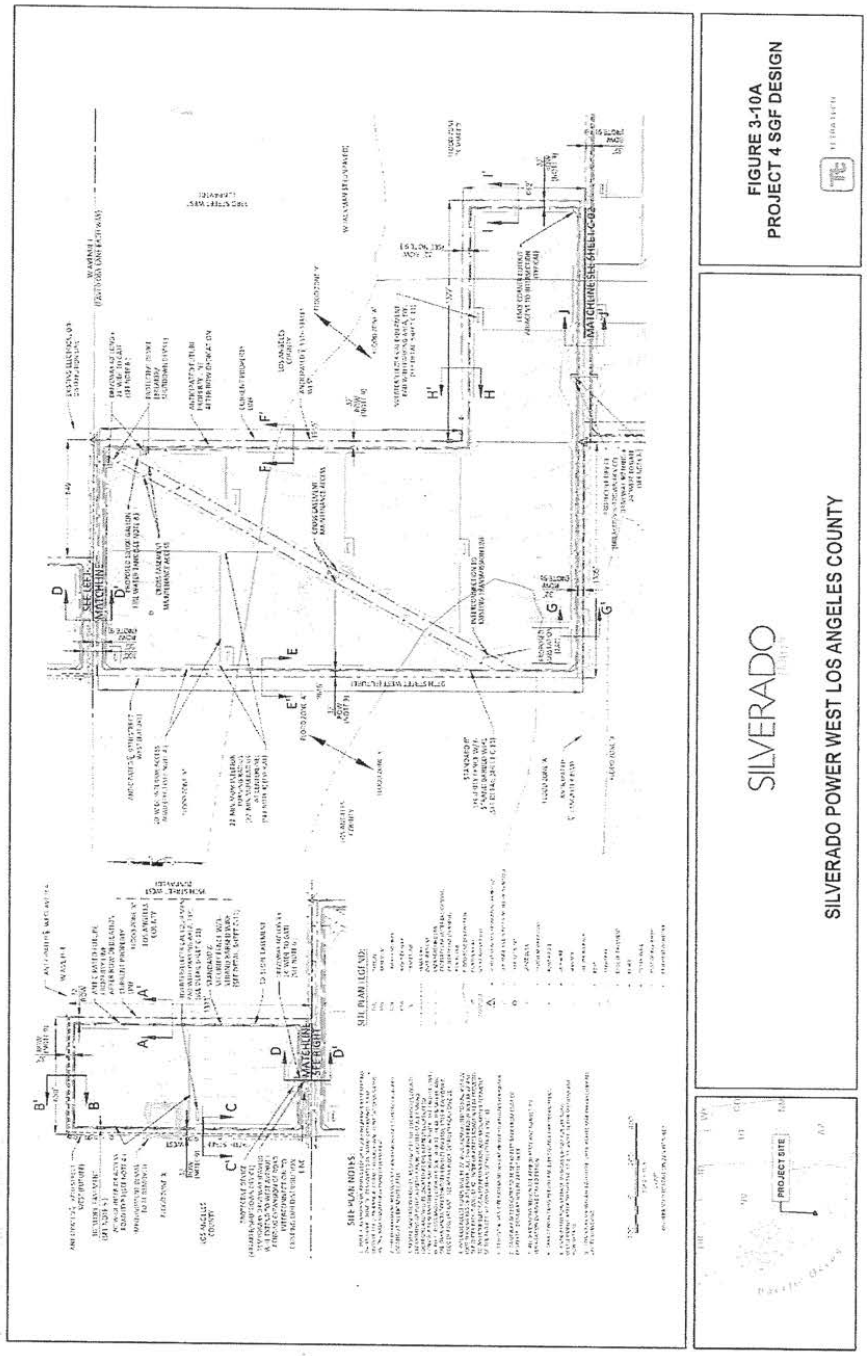


Views looking northwest from a vantage point of approximately 96th Street West and West Avenue I prior to the current drought, within the boundaries of proposed Silverado Power Project 4




SR 138 / W AVENUE D
GENERAL WILLIAM S. FOX AIRFIELD
W AVENUE F
W AVENUE G
Lancaster
W AVENUE H
Proposed Project Site
W AVENUE I
Unincorporated Los Angeles County
Lancaster Blvd
W AVENUE J
W AVENUE K
ANTELOPE SUBSTATION
ELIZABETH LAKE
Johnson Rd
W AVENUE L
Quartz Hill Rd
W AVENUE M
San Francisquito Canyon Rd
W AVENUE N
Elizabeth Lake Rd
Godde Hill Rd
Palmdale
BOUQUET RESERVOIR
Bouquet Canyon Rd
110th St W
90th St W
60th St W
50th St W
40th St W
30th St W
20th St W
10th St W
Sierra Hwy
OR
ID
NV
UT
AZ
PROJECT SITE
Pacific Ocean
Legend
Antelope Solar Greenworks
Water Truck Route (Homer Option)
Water Truck Route (Lancaster Option)
NOTE
(a) UTM Zone 11 (NAD83), Meters.
(b) Source Data: ESRI, BLM, TTEC.
SILVERADO
SILVERADO POWER - PROJECT 4
ANTELOPE SOLAR GREENWORKS
FIGURE 4.13-7
VICINITY MAP
0 1 2 4
Miles
TETRA TECH


W AVENUE H
100TH ST W
95TH ST W
90TH ST W
W AVENUE I
W AVENUE I
JACKMAN ST
LANCASTER BLVD
W AVENUE J
W AVENUE J
ANTELOPE SUBSTATION
OR
ID
NV
UT
AZ
Pacific Ocean
PROJECT SITE
Legend
Antelope Solar Greenworks
Water Truck Route (Homer Option)
Water Truck Route (Lancaster Option)
SILVERADO
TETRA TECH
SILVERADO POWER - PROJECT 4
ANTELOPE SOLAR GREENWORKS
FIGURE 4.13-8
VICINITY AERIAL MAP
0 1,000 2,000 4,000
Feet


Permitted based block 95th St W
Draft Environmental Impact Report
Silverado Power West Los Angeles County
SILVERADO
SILVERADO POWER WEST LOS ANGELES COUNTY
FIGURE 3-10A
PROJECT 4 SGF DESIGN
PROJECT SITE
Page 3-37

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
6 – Hooyerink	6-1	4.1	Please see response to comment 2-2.
	6-2	4.1	The comment is noted and will be incorporated into the project record.
	6-3	3.4.13	Irreversible impacts comment: The comment is noted and will be incorporated into the project record. Property Values comment: See Topical Response 2.3.3 Property Values, presented above.
	6-4	4.13	Figure 3-10a is correct. The 95th Street West County road public easement does not extend into the Project 4 site. The dirt road segment referenced in the comment is private property located within the proposed project area. In addition, the surrounding land is also private property and not "open land" designated for public use. Hence, the Applicant has no obligation to maintain access to this private land.
	6-5	1.5	Please see response to comment 1-2.
	6-6	4.13, Errata 4.13	Figures 4.13-7 and Figure 4.13-8 have been revised to present the correct route on paved roads, as described in Section 4.13.2.1.2. Please see Errata section 4.13 for revised figures.
	6-7	4.1	Please see response to comment 2-2.
	6-8		The comment is noted and will be incorporated into the project record.

Comment Letter 7 – CURE/Adams Broadwell Joseph & Cardozo

ADAMS BROADWELL JOSEPH & CARDOZO
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
601 GATEWAY BOULEVARD, SUITE 1000
SOUTH SAN FRANCISCO, CA 94080-7037
TEL: (650) 589-1660
FAX: (650) 589-5062
jlaurain@adamsbroadwell.com

DANIEL L. CARDOZO
THOMAS A. ENSLOW
TANYA A. GULESSERIAN
MARC D. JOSEPH
ELIZABETH KLEBANER
RACHAEL E. KOSS
JAMIE L. MAULDIN
ELLEN L. TRESCOTT

SACRAMENTO OFFICE
520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721
TEL: (916) 444-6201
FAX: (916) 444-6209

January 28, 2014

By: U.S. Mail and Facsimile

Bruce McClendon, Planning Director
Los Angeles County Department of Regional Planning
1390 Hall of Records
320 West Temple Street
Los Angeles, CA 90012
Fax: (213) 974-6384

Sachi A. Hamai
Los Angeles County Clerk of the Board of Supervisors
Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012
Fax: (213) 620-0636

Via Email Only

Kim Szalay: kszalay@planning.lacounty.gov

Re: Request for *Immediate Access* to Documents Referenced in DEIR and Public Records – West Los Angeles County Projects (SCH No. 2012061068)

Dear Mr. McClendon and Ms. Hamai:

We are writing on behalf of California Unions for Reliable Energy to request *immediate access* to any and all documents referenced or relied upon in the Draft Environmental Impact Report ("DEIR") for the West Los Angeles County Projects, SCH No. 2012061068 ("Project"). Our request for all documents referenced or relied upon in the DEIR is made pursuant to the California Environmental Quality Act ("CEQA"), which requires that all documents referenced in an environmental review 7-1

2751-003cv

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January 28, 2014
Page 2

document be made available to the public for the entire comment period.[1] Please note, this request *excludes* the DEIR for the Project.

This request is also made pursuant to the California Public Records Act (Government Code §§ 6250, et seq.) and Article I, section 3(b) of the California Constitution, which provides a Constitutional right of access to information concerning the conduct of government. Article I, section 3(b) provides that any statutory right to information shall be broadly construed to provide the greatest access to government information and further requires that any statute that limits the right of access to information shall be narrowly construed.

7-1 cont.

We will pay for any direct costs of duplication associated with filling this request up to $200. However, please contact me at (650) 589-1660 with a cost estimate before copying/scanning the materials.

Pursuant to Government Code section 6253.9, if the requested documents are in electronic format and are 10 MB or less (or can be easily broken into chunks of 10 MB or less), please email them to jlaurain@adamsbroadwell.com as attachments. If any of the requested documents are available on the County's website or the Internet, please provide the relevant links for downloading the documents.

Thank you for your assistance with this matter.

Sincerely,

Janet Laurain

Janet Laurain
Paralegal

JML:clv

[1] Pub. Resources Code § 21092(b)(1); 14 Cal. Code Regs. § 15087(c)(5). This request is also made pursuant to the California Public Records Act. We request the above documents pursuant to section 6253(a) of the Public Records Act. This request is also made pursuant to Article I, section 3(b) of the California Constitution, which provides a constitutional right of access to information concerning the conduct of the government. Article I, section 3(b) provides that any statutory right to information shall be broadly construed to provide the greatest access to government information and further requires that any statute that limits the right of access to information shall be narrowly construed. b. Resources Code, § 21092, subd. (b)(1); 14 Cal. Code Regs. § 15087(c)(5).
2751-003cv

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
7 – CURE/ Adams & Broadwell	7-1		Request for public information was responded to by the County via email on January 29, 2014.

Comment Letter 8 – Department of Water Resources

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 942360001
(916) 653-5791

January 28, 2014

Carolina Blengini
Special Projects Section
Department of Regional Planning
Los Angeles County
320 West Temple Street
Los Angeles, California 90012

S.B. 2161 Review of 19-PA-194, Silverado Power West-Los Angeles County Project, Development of Solar Photovoltaic Projects, Near Mileposts 330.64, Southern Field Division, Los Angeles County

Dear Ms. Blengini:

The Division of Operations and Maintenance (O&M) has reviewed the proposal of Silverado Power to develop six solar photovoltaic (PV) sites in Los Angeles County that would produce 172 MW of solar power in total. Each of the six solar PV sites is planned for separate properties and is being developed separately as a project. One of the project sites, Project 2, is approximately 0.45 mile away from the California Aqueduct and 30 miles away from the State Water Project's Pearblossom Pumping Plant.

O&M has no comment. However, O&M requests to obtain a copy of the System Impact Study and Facility Study reports from Silverado Power once the studies are completed for the projects. The reports can be sent to:

Department of Water Resources
Division of Operations and Maintenance
1416 Ninth Street, Room 641-2
Sacramento, California 95814
Attn: Leroy Ellinghouse

8-1

If you have any questions about this letter, please contact Jonathan Canuela of my staff at (916) 653-5095.

Sincerely,

Leroy Ellinghouse, Chief
State Water Project Encroachments Section
Division of Operations and Maintenance

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
8 – Department of Water Resources	8-1		The Applicant is unable to provide these studies due to the fact that they contain critical energy infrastructure information (CEII). CEII is exempt from mandatory disclosure under the Freedom of Information Act; and gives strategic information beyond the location of the critical infrastructure.

Comment Letter 9 – Michael Rives

DEPARTMENT OF REGIONAL PLANNING

PUBLIC HEARING

43825 N. 10th Street West, Lancaster, California 93534, commencing at 1:00 p.m., Saturday, February 1, 2014, before Ryan Wheeler, CSR No. 13717.

PUBLIC HEARING, FEBRUARY 1, 2014

1 APPEARANCES:

2

3 FOR THE COUNTY OF LOS ANGLES
REGIONAL PLANNING COMMISSION:

4

5 BY: KIM SZALAY
BY: SAM DEA
6 BY: PAUL MCCARTHY
BY: ROSIE RUIZ
7 320 WEST TEMPLE STREET
ROOM 170
8 LOS ANGELES, CALIFORNIA 90012
213.974.6409

9

10

11 FOR SILVERADO POWER:

12

BY: RYAN GALERIA, P.G.
13 2 EMBARCADERO CENTER
SUITE 410
14 SAN FRANCISCO, CALIFORNIA 94111
415.692.7726

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PUBLIC HEARING, FEBRUARY 1, 2014

LANCASTER, CALIFORNIA; SATURDAY, FEBRUARY 1, 2014

1:00 P.M.

MR. MCCARTHY: Good afternoon. This is the February 1st, 2014 Saturday meeting of the hearing examiner for the Los Angeles County Department of Regional Planning, and we're here to review the -- to have you comment on the Environmental Impact Report for the Silverado Power project, which is about six separates sites for solar energy facilities here in the Lancaster area.

We will try to limit the testimony to about three minutes per person. We're not here to do any talking -- too much talking. We're going to give a staff report at the introduction. We'll have the applicant do a presentation, and then we'll get right into the witnesses, and we'll go right on through until we finish.

Now, if you want to testify, you have to sign up with the lady at the back of the room of the table, Linda, and then we will call your name. If you have to go to the restroom, go ahead, and we will go back and double-check if we missed your -- missed you while you were out there.

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The proceeding is one in which, again, we're taking testimony on the Draft Environmental Impact Report, your comments on the EIR. These comments will then be compiled. We have a taping system here, which will be forwarded to the EIR preparers, and they will, in turn, put it into a transcript form, and from there it will be mailed in to the final Environmental Impact Report.

So if you raise an issue here, then it will say the issue raised by so and so and then the response, and that will be in the final Environmental Impact Report, which will go to the Planning Commission in a couple of weeks, maybe a month before the hearing.

And if you run out of time or if after you leave you think of something else you want to say that you didn't say, you are still free to write us a letter.

So don't think that because you testified here that you are not able to write a letter. You can write a letter to us, and, of course, our address is downtown Los Angeles, Regional Planning Department, 320 West Temple Street, L.A., 90012, and you could attention the letter to Mr. Sam Dea, D-E-A, and it will get to the proper people.

We do not have a date for that hearing

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1 downtown as yet. It depends on how many comments we
2 get today to some extent, how long it takes EIR
3 preparers to put together all their responses.
4 So at that time when we do feel that they're
5 ready to go to public hearing, we will re-advertise the
6 matter so everybody who got a notice this time around
7 will be noticed, and I believe Mr. Dea -- correct me if
8 I am wrong -- will also be noticed.
9 MR. DEA: That's correct. We can add all the
10 testifiers to our mailing list for the public hearing
11 as well.
12 MR. MCCARTHY: Very well. So if you want to
13 get -- if you didn't get a mailing -- a direct mailing
14 on this and you wanted to get on and to sign, at the
15 end.
16 MR. DEA: Just make sure you include your
17 mailing address if you want to be notified for the
18 public hearing on the testifier form or either comment
19 letter.
20 MR. MCCARTHY: Okay. We'll start the
21 proceeding with the Pledge of Allegiance. If everyone
22 please stand.
23 (Pledge of Allegiance)
24 MR. MCCARTHY: Very well. We have our staff
25 presentation from Mr. Kim Szalay.

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MR. SZALAY: Good afternoon. Thanks for coming out on -- time out on your Saturday. I'm going to do my presentation from the little laptop over there, and you'll be able to see everything up front, and thanks for coming. Okay.

I'm from the special projects section. As I said, my name is Kim Szalay, Department of Regional Planning. I'll be presenting a brief overview of the six solar photovoltaic projects called the Silverado Power West, Los Angeles County Projects that is analyzed in the Draft Environmental Impact Report.

The projects sites are all located west of state route 14, which is located right over here, and projects one through six are located north of SR 138 or Avenue D up here, and projects two through five are located to the south of SR 138 down here.

All within the western Antelope Valley near the city of Lancaster and communities of Antelope Acres and Fairmont. Angeles National Forest is located south of the project dollars down here, and the Tehachapi's are way up off the map up there.

And existing -- all of the projects are located in the fifth supervisorial district, and the entitlements requested include a separate conditional use permit to authorize solar electricity generation

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facility and a water tank for each of projects one through six and the zone change for project one.

A Draft Environmental Impact Report number 201100109 and State Clearing House number 2012061068 has been prepared for analyzing all six projects. Existing on site land use destinations are N-1, nonurban 1, for all six projects.

Zoning for project one is A-1-2, light agriculture, with a zone change request to A-2, heavy agriculture. Projects two through five are zoned either A-2-2 or A-2-5, which is heavy agriculture, and projects six is D-2-2, desert and mountain zoning.

A-2 and D-2 zoning allows electricity generation facilities with a conditional use permit. A-1 zoning does not allow electricity generation facilities. Therefore, the requirement for zone change to A-2 for project one site.

Nearly all of the existing land uses in all six sites are previously disturbed fallow farmland, and the land proposed, that is, the proposed land use is a solar photovoltaic electricity generation facility and water tank for each of the six sites plus associated transmission lines, most of which would be constructed underground.

Project number R201100833 and conditional use

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permit number 201100079 and zone change number 201100005 are associated with project one, which is located at 105th Street West and West Avenue B. By the way, these maps are all up on the wall if anyone wants to see the sites up close afterwards.

Project number 201100798 and conditional use permit number 201100070 are associated with project two and located at 110th Street West And Avenue K.

Project number 201100799 and conditional use permit number 201100071 are associated with project three located at 70th Street West and West Avenue G, and just for clarification on each of these, you're seeing the acres of the site and the megawatts of electricity produced. Forgot to mention that at the beginning.

Project four project number 201100807 and conditional use permit number 201100076 are associated with project four, which is located at 97th Street West and West Avenue I, and then goes down further to some of these other streets as well as you can see.

Project five project number R201100801 and conditional use permit number 201100072 are associated with project five, and it's located at 120th Street West and West Avenue I.

And project six project number 201100805 and

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conditional use permit number 201100074 are associated with project six located at 35th Street West and West Avenue D.

The Department of Regional Planning determined that an Environmental Impart Report was necessary for the project. This in the next two slides show 14 areas that were analyzed by the Draft EIR. Heres five more and these.

After implementation of 62 mitigation measures, and "mitigation measures" are basically -- are things that are done to reduce whatever that impact is, 62 of those. After those are done, no significant and unavoidable impacts remain in any of the areas of analysis.

However, we all know that there's dust issues in the Valley with all the winds we get out here. Regarding air quality and dust control, the projects would not be able to use grading for the array areas. They wouldn't be able to use disking or tilling in the array areas for site preparation to help cut down on dust issues that have happened in some other projects over time.

Only mowing of vegetation on the array areas would be allowed. The only grading that would be allowed would be limited to required grading for

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internal roads and drainage control features, which are a much smaller amount of area than the -- than the arrays.

The mitigations include at least twice daily watering of earth-disturbed areas, use of coverings for soil transport, no grading of array areas, phase mowing only. Limited phase grading of internal roads and drainages.

Use of long-term soil binders on internal roads. Re-established vegetation under arrays or use of wood chips. Stop dust creating construction activities in winds over 25 miles an hour. These are all in the mitigation monitoring reporting program that's been drafted.

All areas of impact analysis were determined to be less than significant with implementation of those 62 mitigation measures. The Environment Impact -- I mean the environmental initial study also identified these areas that do not require further analysis.

The applicant was advised to use land that was previously degraded, to use existing infrastructure to the greatest extent possible such as existing electrical distribution facilities, rights-of-way and roads, and to select land with the least amount of

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threatened or endangered species or their habitats, least cultural resources and least sensitive land uses.

I'd like to conclude my presentation by summing up the planning processes that remain for final action to take place on the projects.

In addition to letters received to date from the public and other agencies, along with today's oral testimony, further public and agency comments on the Draft EIR will be received through February 19, 2014 when the Draft EIR public comment period closes.

A final EIR response to public and agency comments will be prepared for Planning Commission consideration. Additional written comments on the entitlement request will be received up to the time of the Regional Planning Commission hearing to be set at a future date.

Additional oral testimony on the permits may be given at the Commission's hearing. The Commission will certify or reject the EIR, approve or deny entitlements for projects two through six, and make a recommendation to the Board of Supervisors pertaining to final action on the EIR and project one pertaining to the zone change.

The Board of Supervisors would take final action on the EIR and zone change pertaining to project

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one. That would be the final action.

So that concludes my staff report, and from here we will go on to -- the hearing examiner will explain the next steps.

MR. MCCARTHY: Very well. We have the applicant or the applicant's representative wants to come forward to give a presentation.

MR. GALERIA: I also have a slide show.

MR. MCCARTHY: Oh. Just stand over there for a minute. Okay. I'm going to ask everybody who wants to testify, if you're unsure you want to testify or not, just go ahead and stand up so we can swear you in and raise your right hand. Please raise your right hand.

Do you and each of you swear or affirm under penalty of perjury that the testimony you may give in the matter now pending before this hearing examiner shall be the truth, the whole truth, and nothing but the truth?

(Audience sworn in)

MR. MCCARTHY: Please be stated. Give us your name spell and then spell it phonetically for the record.

MR. GALERIA: Good afternoon. My name is Ryan --

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MS. RUIZ: You need to go on the microphone.

MR. GALERIA: Oh. You want me to --

MS. RUIZ: Yes.

MR. GALERIA: Good afternoon. My name is Ryan Galeria. That's G-A-L-E-R-I-A. I'm one of the Silverado Power project managers, and I'd like just to take an opportunity to say thanks for coming out. I know it's a Saturday. We appreciate everyone's input.

I see a lot of people that I have spoken with before, a lot of people from the community, and if I haven't had a chance to speak with you before, I'm always happy to do so. So please grab me today, or I can give you my contact information and we are always -- always here and interested in getting your feedback.

So I know that Kim gave a good overview of the projects that we are presenting today, but I just want to hit a couple extra topics and talk a little bit about why we chose the sites that we did, what we're going to do moving forward, and a little bit about our process as a company.

So when Silverado looks to develop a solar project, as you know, there's a tremendous amount of land available all over the State of California. So we've received a lot of questions as to why we have

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chosen these specific sites.

So we look at a vast amount of land and then go through, you know, a multistep process to choose our steps. We look for sites that are close to existing infrastructure. We need a way to deliver our power to customers, all the residents in California. So we need a place where we can plug into the electrical grid, and hopefully it's as close as possible to that electrical grid so there's a path.

We look for land that's been previously disturbed, that's no longer being used, it's no longer useful so we have the least amount of environmental impact as possible.

Then we make sure through studies and intensive research that we're not having a negative impact on biological species, cultural or historic artifact remnants, and we also want to make sure that we avoid areas that may be used for future sensitive ecological areas or future -- I guess, protect the areas which many are in the -- in the county.

Here specifically in the western Antelope Valley we looked at about 10,000 acres, and out of those 10,000 acres we've narrowed it down to the 900 and approximately 80 that you see today.

This process has been a really long process.

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So we've been working on this for three to four years. I've personally been involved in the last two years. Want to be very selective of the sites we want to move forward with.

So the process, you know, involves the steps where we actually select the sites, and then once we have a site that we think is actually viable, we do years of study on than site, extensive biological resource analysis, cultural resource analysis, and then really intense planning with not only technical experts but also the county, the Department of Public Works to make sure that we're protecting the sites and surrounding community.

We work with experts from the utilities to make sure the connection process can proceed, if it's safe to do so. We work with local groups such as Resource Conservation District, Dustbusters, spoken at a lot of town counsels and received a lot of great feedback from residents and community members.

So it's a -- hopefully what we plan to do is take in as much information so that these projects are developed in the most responsible way possible.

This is the map again. I just wanted to point out one thing here. It's a little bit tricky to see, but if you can see where I'm pointing here, that's the

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Antelope Valley substation, and I'm sure that you're all familiar with that, and that's one of the main drivers as to why these projects are based here.

The Antelope Valley sub is one of the main collection and distribution points for power in this portion of the state, and that's what's really driving a lot of our site selection is that there's infrastructure already here, which means that's we don't need to build more infrastructure.

We don't need to do additional land destruction activities, and there's a lot of power transmission facilities available that SEI -- SCE identified that we can actually tap into and deliver power. So that's a huge drive in our decision making process.

I know that Kim touched on the dust control issue, and we also know that water is a main -- or is a really hot-button issue out here. There's a lot of people that are very concerned about it.

So we focused a tremendous amount of time and effort into researching and preparing what we think is the best possible plan for dust mitigation and also to make sure that we don't negatively impact the groundwater basin.

So I know that Kim touched on quite a few

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1 topics as to what the -- the county will be mandating
2 that we do as far as mowing vegetation, not doing
3 ground disrupting activities, trying to really limit
4 our potential to create dust, and in areas where we
5 really can't limit that such as compacting roads or
6 driving piles or where we have to bury cable, making
7 sure that we carry out those activities in the most
8 responsible manner possible.
9 So using the right soil binders, not working
10 when it's windy, really minimizing the amount of ground
11 disruption on a given day, and so we really reduce that
12 as much as possible.
13 We've done a lot of work with community groups
14 with people that are experts in the area, talked to a
15 lot of residents and tried to come up with the best
16 plan.
17 Also for the lifetime of the project, we've
18 committed to seeding the area of the panels. So once
19 the construction is complete, we'll go back out there
20 with seed mix, establish vegetation which will really
21 tie that soil down, and hopefully for the life of the
22 project really make that site resistant to the creation
23 of the dust.
24 The other topic that we want to touch on
25 briefly is groundwater. I know that the groundwater

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basin we all know is in the adjudication process. That's still -- you know, who knows how long that will be before it's resolved. So we worked with the county, and I know it's a great concern as far as our impact on other people's groundwater, and most of the residents here are operating wells.

So we will be sourcing all of our water from what's considered out of the basin. So we'll either purchase water that's being imported from another area in California and use that, or we'll be using treated wastewater from the city of Lancaster.

So it's water that's already been used once, it's gone through the treatment facility, and then we'll use it for our construction purposes. So we won't be using any wells, no groundwater from the area, and in that way we will have basically no impact on the groundwater basin.

One thing that the EIR doesn't really address but that we wanted to highlight is our hopefully positive economic impact on the area. So we've got these six projects that will be moving forward.

The timing of the actual construction is going to be spaced. So it's going to be phased construction. We anticipate anywhere from 40 to 150 people working on each job site. You know, the projects are actually

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different sizes. Some phases of construction will need more workers, some less, but we anticipate this workforce hopefully being able to go from one site to the next to the next and having a relatively steady employment for two years potentially a little bit more.

And the reason we did this phase approach is that some projects have different time lines when they're -- they need to be online for their contract. Another reason is to mitigate some of the potential impacts to traffic, dust creation, water use.

So it's -- the idea is that we draw out the overall timeline, but the impact for each project is less, and hopefully that's a greater impact on the people that are actually working there because they'll have long-term employment.

We also expect that we'll have a really positive impact on local businesses. So during the construction process, we'll be utilizing local subcontractors.

We've already done that to the greatest extent possible, and some of the survey work, civil engineering, and we want to continue working with those local businesses because they're the experts on those lands. They're available. It has a positive impact on the local economy, and I think that's good for all of

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us, including us as developers and the local residents.

So we want to continue hiring from the local workforce, utilizing local businesses, and hopefully purchasing goods and equipment from local businesses because they're -- they're here in the area.

We've been -- hopefully you all have seen me. I don't know if I've met every one of you, but I've been out here for the last couple years talking to different groups, schools, the college, town counsels, residents, really anyone that wants to talk to us, and I'm happy to do that.

And if we can find a way to work together, but if we can provide any benefit to you such as the college we've helped with some of the curriculum, educational opportunities. If you have any of those ideas, I'm happy to help, and we always want to get more involved in the community. So please take my contact information. I'm happy to meet with you at any time.

I think that's all I have for my presentation, but look forward to speaking with you soon.

MR. MCCARTHY: Very well. Mr. Dea is going to be calling out the names. We'll call them two at a time. So when you hear your names, come on up, have a seat here, and we'll -- that will speed up the process

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a little bit, and, again, this is a three minute time limit for each speaker.

MR. DEA: Okay. First name is Robert Bailey, Michael Rives.

MR. MCCARTHY: And if you could give us your name and then spell your last name phonetically.

MR. RIVES: Name is Michael Rives. My last name is R-I-V-E-S. I'm a resident of Lancaster. I'm a candidate for city counsel, city of Lancaster in the April election. I'm a frequent speaker before the Lancaster City Counsel on solar project and the power plant.

I have some concerns about solar plants, not recently but about the radiation, and I also have a concern that we have missed the boat on solar energy. I'm not against solar energy per se, but I think it should be based on an individual basis that the homeowner should be given the discretion of whether he or she wants solar energy. 9-1

I understand the city of Lancaster mandating that developers take in consideration solar panels and the construction of homes, which is fine with me, but I do have concerns with the solar plants that we have already in the city of Lancaster and also ones that you are proposed.

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One of the things I'm concerned about the current project is that you are going to dig up the ground. You are going to affect the -- the environment when you put the transmission lines in. That is another concern of mine. 9-2

A concern of mine is the dust and water that you've mentioned. You're all aware we're in the middle of a drought, and there's no telling when we'll be able to get out of the drought. So I fail to see where their water is going to come from to water down the dirt for these projects. 9-3

This is being developed by a private company, and if the company goes bankrupt, who is going to be responsible for these panels and solar projects? Is the county of Los Angeles going to be responsible? The city of Lancaster? 9-4

In the agenda it -- and also the paper from the Environmental Impact, it -- it describes editorial -- and Lancaster does this too in their agenda. It tells about land that were used for farming and are no longer used, et cetera.

When they put things in the agenda or the papers, they should have statistics to base -- maybe they say the land won't be used anymore for agriculture. That's the editorial, and it's 9-5

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9-5 cont.

1 subjective.}{In essence, I think there's -- these may
2 be a well-meaning project to generate money for the
3 city and the county, and it might be well thought of in
4 that respect, but I favor the individual solar panels,
5 and I do not favor the creation of anymore solar plants
6 in the County of Los Angeles.}

9-6

7 Thank you.
8 MR. MCCARTHY: Thank you. That was perfect
9 timing.
10 Sir, your name and, again, phonetical spelling
11 on the last.
12 MR. BAILEY: Robert Bailey, B-A-I-L-E-Y is my
13 last name.
14 And concerns I have with the project is house
15 value. I live 700 feet approximately from 110th and K,
16 and it's going to be right cross the street from us.
17 Maintenance and dust control. I'm concerned about
18 that.
19 I'm handicapped and have problems breathing,
20 and I sleep with oxygen every night and stuff like
21 that. If the dust is -- right now the ground hasn't
22 been disturbed in years. We don't have any problems
23 with that up on the side of the hill.
24 Down farther there's a lot more dust blowing.
25 As soon as you guys tear up that corner, it's going to

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
9 – Rives	9-1		The comment is noted and will be incorporated into the project record.
	9-2		Please see Section 4.6, Geology and Soils, of the DEIR for further information regarding geology and soils for the proposed Projects.
	9-3	4.14	Please refer to Section 4.14, Utilities, which discusses the proposed Projects' construction and operation water supply.
	9-4	3.4.13	Section 3.4.13, Decommissioning Plan, addresses decommissioning of the proposed Projects.
	9-5		The comment is noted and will be incorporated into the project record.
	9-6		The comment is noted and will be incorporated into the project record.

Comment Letter 10 – Robert Bailey

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subjective. In essence, I think there's -- these may be a well-meaning project to generate money for the city and the county, and it might be well thought of in that respect, but I favor the individual solar panels, and I do not favor the creation of anymore solar plants in the County of Los Angeles.

Thank you.

MR. MCCARTHY: Thank you. That was perfect timing.

Sir, your name and, again, phonetical spelling on the last.

MR. BAILEY: Robert Bailey, B-A-I-L-E-Y is my last name.

And concerns I have with the project is house value. I live 700 feet approximately from 110th and K, and it's going to be right cross the street from us. Maintenance and dust control. I'm concerned about that. 10-1

I'm handicapped and have problems breathing, and I sleep with oxygen every night and stuff like that. If the dust is -- right now the ground hasn't been disturbed in years. We don't have any problems with that up on the side of the hill. 10-2

Down farther there's a lot more dust blowing. As soon as you guys tear up that corner, it's going to

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start from the corner of 110th and K and go in, and right now, it weights down quite a bit farther before it starts really lifting up the air and stuff. 10-2 cont.

{ House values,} {maintenance concern,} {and also if they're going to use that reclaimed water, what's that going to do to smell? Are we going to have to smell like it does around the sewer factory? That's not a good thing for lungs and stuff like that. I've got lung problems and stuff.} 10-3 10-4 10-5

So I just don't want the -- the view problem because you're going to see these things here. That's a beautification route that's supposed to be down 100 and K, and just concerns me. Those are the things -- nobody talks to anybody about, "Oh. You got a house here." 10-6

We are out in the middle of nowhere. That's why I bought the house is because I'm out in the middle of nowhere. These things going to be put up here, it isn't -- it isn't right. It's not a -- a thing for us.

Like I said, a person that wants individual power is the way to do it I think. You -- you buy power from the power company, or you get solar panels, but it's a person's choice instead of covering up the whole ground area. 10-7

We have -- we had a house built across the 10-8

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street from us a few years back, and during that time the snake problem got ten times as bad for the next two or three years. So they tore up only for five acres. They go and tear up for 40 acres, 50 acres, 100 acres, the snake problem is going to get severely worse. 10-8 cont.

Telephones. I don't have a landline at home because the telephone service out there is so terrible, and now if they put power problems around that -- cell phones just barely work as they are -- they're going to put more power around there. 10-9

Every time they put power farther out, they put power lines just about half a mile down from that power plant and comes right up to -- towards our property, our phones cut out 50 percent of the -- being able to talk on them.

Without the proper telephone lines and -- and that, in case I have an emergency that I have to go to the hospital, there's no way for me to call out, and that's all I have to say. 10-10

Thank you.

MR. MCCARTHY: Thank you. And next.

MR. DEA: David Paul. Lester Legan.

MR. PAUL: David Paul, P-A-U-L.

My concerns -- I want to start by saying I've been a long-time advocate of solar power. I wanted the 11-1

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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
10 - Bailey	10-1		See Topical Response 2.3.3 Property Values presented above.
	10-2		See Topical Response 2.3.6 Dust Control, presented above.
	10-3		See Topical Response 2.3.3 Property Values, presented above.
	10-4	3.4.11	Section 3.4.11 describes operations and maintenance of Projects 1 – 6.
	10-5		The proposed use of reclaimed wastewater provided by the City of Lancaster Water Reclamation Plant will not result in any impacts due to odor. Currently, the Lancaster Water Reclamation Plant provides tertiary treatment for up to 18 million gallons of water per day. This water is reused for construction (as proposed here), irrigation for fodder crops, maintenance of wetland areas, and irrigation at parks. The treatment processes used will ensure that no health, environmental, or odor impacts will occur due to the proposed use of this water. Additional information on the Lancaster Water Reclamation Plant is available online at http://www.lacsd.org/wastewater/wwfacilities/antelope_valley_water_reclamation_plants/lancaster_wrp.asp
	10-6	4.1.2.1.2	Please see Section 4.1.2.1.2 of the DEIR, Aesthetics, for further analysis of visual impacts from Project 2.
	10-7		The comment is noted and will be incorporated into the project record.
	10-8	4.4	Please refer to Section 4.4 of the DEIR, Biological Resources, for further analysis of biological impacts from Project 2.
	10-9		See Topical Response 2.3.10 Cell Phone interference, provided above.
	10-10		The comment is noted and will be incorporated into the project record.

Comment Letter 11 – David Paul

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street from us a few years back, and during that time the snake problem got ten times as bad for the next two or three years. So they tore up only for five acres. They go and tear up for 40 acres, 50 acres, 100 acres, the snake problem is going to get severely worse. 10-8 cont.

Telephones. I don't have a landline at home because the telephone service out there is so terrible, and now if they put power problems around that -- cell phones just barely work as they are -- they're going to put more power around there. 10-9

Every time they put power farther out, they put power lines just about half a mile down from that power plant and comes right up to -- towards our property, our phones cut out 50 percent of the -- being able to talk on them.

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city to have its own utility and produce the power and individual panels are the way to go, but I don't distrust large solar fields entirely, but this is my concern: It's getting promises kept.

Now, a lot of times people are promised things, but the city of Lancaster's still licking its wounds from the power plant that Palmdale wants to build with last minute changes that were unexpected, and sometimes the rug is just pulled out from under you when trying to do the best thing. 11-1 cont.

One thing that came up, this power plant in Palmdale is also tapped to use this reclaimed water. So with watering our soccer fields and the power plant consuming it, now it's going to the solar fields, I don't think there's enough water to go around. So you're going to have to buy it. 11-2

The dust and the water are two main concerns, and I just want to understand how we're going to get the promise you make kept and what we can do if they're not. Dust blowing is a huge concern to me, and I would just like some assurances that, you know, when I see these things in mitigation report "no significant impact," that -- that's just laughable to me. There's always impact, and then the mitigation must be continued. 11-3

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So I would just like to comment that I'd like to see a little more assurance made of how we're going to continue these mitigation efforts to cut down the dust and not waste our water. 11-4

Thank you.

MR. MCCARTHY: Thank you.

MR. DEA: Lester.

MR. LEGAN: My name is Lester Legan, L-E-G-A-N.

I live directly across from the project two on K and 110th Street West. It's right out my front door. My concerns are health. I have -- my wife is extremely asthmatic, and I have a granddaughter that lives with me that has a heart condition and breathing needs, and she's on oxygen. 12-1

So I'm worried about their health, especially after the dust storms we saw last year, and when I contacted the proper people about the dust storms, I was blown off. They said it was coming from Kern County, and I witnessed the dust storms coming from Avenue J north from solar facilities and from just where they had done some plowing.

My other concerns is my financial concern that it's going to depreciate the value of my home. This is -- this is a place that I plan on living the rest of 12-2

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
11 – Paul	11-1		The comment is noted and will be incorporated into the project record.
	11-2	4.14.4.1	See Topical Response 2.3.5 Water Supply, presented above.
	11-3	4.3.5.1	Please see Section 4.3.5.1, Air Quality for the analysis of the Projects' fugitive dust impacts.
	11-4		As stated in Section 1.5, the Mitigation Monitoring and Reporting Program (MMRP) is required by CEQA for projects where mitigation measures are a condition of project approval and development. The purpose of the MMRP is to ensure the implementation of the Projects' mitigation measures. The task of designing monitoring and reporting programs is the responsibility of the public agency which is approving the project, or the County of Los Angeles.

Comment Letter 12 – Lester Legan

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So I would just like to comment that I'd like to see a little more assurance made of how we're going to continue these mitigation efforts to cut down the dust and not waste our water. 11-4

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MR. DEA: Lester.

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my life and pass it on to my children. I won't have that much to pass on to them. 12-2 cont.

The third thing is just the view -- esthetic view. The -- right now the view is being ruined out there by the plants that are going -- the windmills that are going up in the Tehachapi's. 12-3

Everywhere I look there's some sign of this energy programs that are going on, and now it's going to be surrounding my home. So me and my family are concerned about that and my neighbors. So that is our concern with this. I'm also concerned about the water issue. There's not going to be enough water I think. 12-4

So that's our concerns right now.

MR. MCCARTHY: Thank you.

MR. DEA: Joseph Yore. Beverly Bernacki.

MR. YORE: My name is Joseph Yore, Y-O-R-E. I'm a Korean War veteran. I don't believe in this solar panel. The whole project is completely -- when you put letter -- wordings up there, they're lies. Those wordings are lies.

You're going to have not one word in here mentions trucks. You're going to have trucks rumbling through that area, digging up the ground, shaking those people's houses, breaking their water piping, and then you want to use cruciated water. 13-1

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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
12 – Legan	12-1		See Topical Response 2.3.7 Valley fever/Dust, presented above.
	12-2		See Topical Response 2.3.3 Property Values, presented above.
	12-3	4.1	See Topical Response 2.3.1 Visual simulations/Aesthetics, presented above.
	12-4	4.14.4.1	See Topical Response 2.3.5 Water Supply, presented above.

Comment Letter 13 – Joseph Yore

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my life and pass it on to my children. I won't have that much to pass on to them. **12-2 cont.**

The third thing is just the view -- esthetic view. The -- right now the view is being ruined out there by the plants that are going -- the windmills that are going up in the Tehachapi's. **12-3**

Everywhere I look there's some sign of this energy programs that are going on, and now it's going to be surrounding my home. So me and my family are concerned about that and my neighbors. So that is our concern with this. I'm also concerned about the water issue. There's not going to be enough water I think. **12-4**

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MR. MCCARTHY: Thank you.

MR. DEA: Joseph Yore. Beverly Bernacki.

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Cruciated water -- there's never been a real study on cruciated water. Not one. Takes about 20 years for all this stuff to seep through the ground and hit the "aquafil." It has happened in Hollywood. It has happened in Pennsylvania, Cameron County, the wells are getting contaminated. 13-2

And you people -- when you have the trucks rolling through there, eventually you have valley fever because the trucks dig up the microbes in the ground, spread it in the air, people get sick, they're (Witness gestures), and they think they got a cough, they got valley fever. 13-3

This project is completely wrong because these farmers are probably getting farmer's aide. They're not telling you how much aide they're getting from the state or any place else, but they're selling the land, and all these projects are all made the same way instead of spreading out through thousands of acres and hundreds of acres.

You could build one gigantic tower. The sun goes up in the east, down in the west. You could cover the whole area with one room this side and cover -- cover the whole city of all the power you want. 13-4

This project should be stopped because the people that own the land around there are going to end 13-5

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1 up sick,} and they're going to end up losing their 13-5 cont.
2 property, and you people get paid. The stockholders
3 make money. The CEO makes a couple million dollars.
4 What do these people get?
5 Their property goes down the (Witness
6 gestures), down the pipeline. I'm sorry. You
7 people -- you shouldn't even be here trying to do this
8 project. All of a sudden everybody needs solar energy
9 or some kind of energy.
10 You should see what they're doing in
11 Pennsylvania. I had -- I have a house in Pennsylvania
12 where they're drilling for gas. They're contaminating
13 the whole area -- write this down in your book: Within
14 five to ten years the Susquehanna River and the Alazani
15 River will be on contaminated just like the Elk River
16 in West Virginia. I'm always right. Always.
17 MR. MCCARTHY: Thank you, sir.
18 Your name.
19 MS. BERNACKI: Good afternoon. My name is
20 Beverly Bernacki, B-E-R-N-A-C-K-I.
21 I'm a resident of the west Antelope Valley.
22 I've lived there for some time. I'm up in the
23 foothills, and I look out over a sea of large
24 industrial scale alternative energy projects.
25 My opinion is that the west Antelope Valley's 14-1

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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
13 – Yore	13-1	4.3; 4.7; 4.11; 4.13	Please refer to Section 4.3 Air Quality, Section 4.7 Greenhouse Gas and Climate Change, 4.11 Noise, and Section 4.13 Transportation and Traffic for further information regarding truck trips and the use of trucks for construction of the Projects.
	13-2	4.14.4.1	It is assumed that the commenter is referring to recycled water. Please refer to Section 4.14.4.1 Utilities for further analysis of water use and supply for the proposed Projects.
	13-3		Please see Topical Response 2.3.7 Valley Fever/Dust, presented above.
	13-4	5.0	Section 5.0, Alternatives, discusses alternatives to the proposed Projects.
	13-5		Please see Topical Response 2.3.7 Valley Fever/Dust, presented above.

Comment Letter 14 – Beverly Bernacki

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1 up sick,} and they're going to end up losing their 13-5 cont.
2 property, and you people get paid. The stockholders
3 make money. The CEO makes a couple million dollars.
4 What do these people get?
5 Their property goes down the (Witness
6 gestures), down the pipeline. I'm sorry. You
7 people -- you shouldn't even be here trying to do this
8 project. All of a sudden everybody needs solar energy
9 or some kind of energy.
10 You should see what they're doing in
11 Pennsylvania. I had -- I have a house in Pennsylvania
12 where they're drilling for gas. They're contaminating
13 the whole area -- write this down in your book: Within
14 five to ten years the Susquehanna River and the Alazani
15 River will be on contaminated just like the Elk River
16 in West Virginia. I'm always right. Always.
17 MR. MCCARTHY: Thank you, sir.
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20 Beverly Bernacki, B-E-R-N-A-C-K-I.
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23 foothills, and I look out over a sea of large
24 industrial scale alternative energy projects.
25 My opinion is that the west Antelope Valley's 14-1

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oversaturated with industrial scale projects. I welcome alternative energy, and I appreciate what I hear Silverado has tried to do by diversifying the project, but I think it still needs to be diversified further to every rooftop in every business in Los Angeles. 14-1 cont.

I'd like to see a moratorium on industrial scale projects until every roof is covered and the power is generated where it's used.

My other concerns are {water,} {dust,} {habitat} {fire,} {property values,} and {farming,} and the mention of promises. I've no reason to doubt this company, but some of the projects in the north valley tore up acres and acres of vegetables, peach orchards, and said they would {employ local people.} 14-2 14-3 14-4 14-5 14-6 14-7 14-8

And my understanding is they brought in local people, fired them, and brought in their staff from Arizona. That's just what I've heard by people who have worked there.

So anyway, thank you very much.

MR. DEA: Barbara Rogers. Coralee Reuter.

MR. MCCARTHY: Okay. Who wants to go first.

MS. ROGERS: I'll go.

MR. MCCARTHY: All right.

MS. ROGERS: My name is Barbara Rogers,

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14 – Bernacki	14-1	5.0	The comment is noted and will be incorporated into the project record. Refer to Chapter 5.0 Alternatives to the Proposed Projects 1 – 6. As discussed in Chapter 5.0, alternatives for the proposed Projects were considered and/or eliminated as feasible options.
	14-2	4.14.4.1	See Topical response 2.3.5 Water Supply, presented above.
	14-3	4.3	Refer to Section 4.3 Air Quality.
	14-4	4.4	Refer to Section 4.4, Biological Resources.
	14-5	4.8	Refer to Section 4.8 Hazards and Hazardous Materials.
	14-6		See Topical Response 2.3.3 Property Values, presented above.
	14-7	4.2	Refer to Section 4.2, Agriculture and Forestry Resources.
	14-8		The comment is noted and will be incorporated into the project record.

Comment Letter 15 – Barbara Rogers

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R-O-G-E-R-S. I'm a resident of Fairmont area and also the president of their town counsel.

I have many concerns because from where I live out there, I can see all the major projects that are going in. First solar, alpine, sun power, every one of them I can see from my property.

We're concerned about {health,} {dust,} the {wildlife,} {the snake problem that one gentleman mentioned. This happened, all the snakes are driven off the property along with rodents and everything else we have out there, which include all sort of wildlife: Raccoons, badger, different birds, owls, burrowing owls, barn owls, that sort of thing.} 15-1 15-2 15-3 15-4

Another thing I've not heard anybody else address, out here where the land's being disturbed, {sheep have been grazed out here for years all over this valley. They carry a bacterium called "corynebacterium pseudotuberculosis."} For those of you that don't know what it is, those are abscesses that sheep get on them. 15-5

When these things break and run, which they will, it deposits in the soil. It stays there forever unless somebody is standing there with a blowtorch or gasoline and a match to turn it on -- to light it up and burn it off.

It stays in there until something comes along

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to disturb it, much like valley fever. These bacterium are the cause also in dryland distemper in horses or pigeon fever. Anybody that lives out here that has horses knows darn good and well that this is one of those things that happens because of what's in the ground because of those sheep.

These things could also cause abscesses in humans, and those abscesses can go into your internal organs and can kill you. There's not been a lot said about this, but I have -- out where I live I've got horses that seems to get it every year, and we've had the sheep grazing around us for a long time.

Fortunately this year there aren't any. The first time since we've been out there for 16 -- 15 years. I have had other animals -- other horses that have gotten it too. So far none of mine have been fatal thank God.

My husband was diagnosed two years ago with valley fever. The incidents of valley fever have increased out here dramatically with the increase of the solar farms and the fact that they disturb the ground, and even if they don't break, whenever they pound those stakes in that hold up the pipes that hold up the panels, you're going to have dust come up. That dust is going to have all the stuff in it. 15-6

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{The property values are being decimated by -- in my case, like I say, I can see every one of them from my house.} The people that live in Antelope Acres and other places that are adjacent to this, parts of Lancaster, {if you were here during those dust storms, you absolutely, unless you were -- unless you see them, you have no idea how horrible they were.} 15-7 15-8

People's dogs in Antelope Acres could walk up to the top of their chain link fences and step over. They didn't have to jump them. That was from all the dirt that was piled up at their fences. Same thing coming in their houses blowing into their places through their -- their vents and so forth and under their doors.

You know, the people that do not live out here don't have a clue, and I know I'm sure none of you actually live out here, and I really think that the people that live out here ought to be the ones that get to make the decisions, not people in Los Angeles that have absolutely no vested interest in this.

There's disturbances in the cell phones. Out where we live we have no phone lines. Since those solar farms have fired up, half the time we have no cell service. 15-9

Again, emergencies, we have no emergency 15-10

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services. Something happens, we have no cell service, no emergency service, people out there are going to die, and a lot of it is going to be because of the interference from these solar farms. 15-10 cont.

MR. MCCARTHY: Thank you.

Next speaker.

MS. REUTER: Coralee Reuter, R-E-U-T-E-R. I'm going start out with "NIMBY," not in my backyard. Project three would be literally in my backyard.

I have ten acres in 75th West and Avenue G, and you want to build directly east of that. Also "BANANA," build absolutely nothing anywhere near anyone. I'm sure you've all heard of these.

And my 14-year-old grandson came up with some wonderful points. He was practically in tears as he was writing this. He said an area just north of Avenue G is completely void of all residencies and is at least two to three times as big as the area north of where you plan to put up these solar panels. 16-1

The sun rise and sunset views that AV is famous for will be completely and utterly obliterated for anyone close to 70th Street West. He said there is a very huge picturesque tree that has lost its life just north of his house where you plan to put up solar panels. 16-2

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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
15 – Rogers	15-1		The comment is noted and will be incorporated into the project record.
	15-2	4.3	The comment is noted and will be incorporated into the project record. Please refer to Section 4.3, Air Quality.
	15-3	4.4	Refer to Section 4.4, Biological Resources.
	15-4	4.4	Refer to Section 4.4, Biological Resources.
	15-5	4.3	This comment is in reference to ground disturbing activities and transmission of Corynebacterium Pseudotuberculosis. Impacts due to dust related pathogen transmission are analyzed in Section 4.3, Air Quality. Additionally, refer to Topical Response 2.3.6 Dust Control and 2.3.7 Valley Fever/Dust topical responses presented above.
	15-6	4.3	See Topical Response 2.3.7 Valley Fever/Dust, presented above.
	15-7		See Topical Response 2.3.3 Property Values, presented above.
	15-8	4.3.5.1	See Topical Response 2.3.6 Dust Control, presented above.
	15-9		See Topical Response 2.3.10 Cell Phone Interference, presented above.
	15-10	4.8.5.7	Refer to Section 4.8.5.7 for impacts related to emergency response.

Comment Letter 16 – Coralee Reuter

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services. Something happens, we have no cell service, no emergency service, people out there are going to die, and a lot of it is going to be because of the interference from these solar farms. 15-10 cont.

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It has a unique charm that is appealing to the eye, unlike hard metal panels that you want to replace this ancient landmark with. After his hours of research, he confirms that with the amount of electricity that the average family uses today, the solar panels are not even a good source of electricity. 16-3

I go for walks where I live, and it -- excuse me -- in a time of about three weeks, I have observed 82 ravens out there feeding on the ground, three coyotes, one I got within about 50 yards before it was even aware that I was there, many kinds of -- between 50 to 20 quail, and at least six baby owls.

{This local wildlife would be greatly endangered,} and you in your letter you sent to us stated that the projects are not dependent upon each other for success. 16-4

So if you would not build project number three, that would not obliterate my view of the city lights in the evening, which the reason we moved to where we did 13 years ago. 16-5

Before that we lived on H-1 in 10th Street West in Lancaster before all those homes and fences went up. Well, guess what, 31 and a half years later they started building around us. So we moved out to Antelope Acres. {Now you want to come out there and take away my way of life? No. That is not okay.} 16-6

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Also in that letter you sent you stated that each project can succeed as a stand-alone project if other projects are not approved by LA County. That's in your letter. The project locations include a variety of land uses, although a majority of the surrounding lands are unoccupied agricultural and grazing lands. 16-7

Unoccupied? There are two people in my household, my daughter and her two grandchildren live within a half a mile of us. I have got neighbors with two young children, 14 and 12. I consider that occupied.

Thank you.

MR. MCCARTHY: Thank you.

MR. DEA: Ed Rogers. Susan Hooyerink.

MR. MCCARTHY: Mr. Rogers.

MR. ROGERS: Okay. My name is Ed Rogers, R-O-G-E-R-S, and the reason I come this afternoon is a lot of reasons you've already heard as far as my -- my objections to these projects.

You know, we moved out here 15 years ago because we like country life. We like the nice black skies at night, and we don't want people building right on top of us, and for sure we don't want industrial size solar farms coming in and taking over the area. 17-1

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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
16 – Reuter	16-1	5.4	Section 5.4, Alternative 3: Select Other Project Sites, describes alternative project locations that were considered.
	16-2	4.1	See Topical Response 2.3.1 Visual Simulations/Aesthetics, presented above.
	16-3		The comment is noted and will be incorporated into the project record.
	16-4	4.4	Please see Section 4.4, Biological Resources, of the DEIR for further discussion on the Projects' impacts to biological resources. Also see Appendix B-3 of the EIR for the technical analyses that were conducted for biological resources for each site.
	16-5		With regard to lighting on the Project sites please see section 4.1.3.3.4 and 4.1.6.5.1 that address conformance with the Los Angeles County Rural Outdoor Lighting Ordinance.
	16-6	4.10.5	See Topical response 2.3.4 Preservation of Rural Character, presented above.
	16-7	4.10	Section 4.10, Land Use, states that the three most extensive land uses in the Antelope Valley are agriculture, residential areas, and military reservations. It also states that there are homes located near the Project sites in Section 4.10.5.1.

Comment Letter 17 – Ed Rogers

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Also in that letter you sent you stated that each project can succeed as a stand-alone project if other projects are not approved by LA County. That's in your letter. The project locations include a variety of land uses, although a majority of the surrounding lands are unoccupied agricultural and grazing lands. 16-7

Unoccupied? There are two people in my household, my daughter and her two grandchildren live within a half a mile of us. I have got neighbors with two young children, 14 and 12. I consider that occupied.

Thank you.

MR. MCCARTHY: Thank you.

MR. DEA: Ed Rogers. Susan Hooyerink.

MR. MCCARTHY: Mr. Rogers.

MR. ROGERS: Okay. My name is Ed Rogers, R-O-G-E-R-S, and the reason I come this afternoon is a lot of reasons you've already heard as far as my -- my objections to these projects.

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So like I say, our way of life, our {property values}, {our groundwater, the use of groundwater,} and as my wife stated in her statements and the gentleman earlier who spoke of, {when you've all got cell phone use, somewhere or other, concentrated solar farms seem to affect that.} 17-2 17-3 17-4

I can't explain it. I don't -- I don't really understand all that knowledge, but -- but it's even proven on -- on these microwave transmission lines that they also affect those. 17-5

{And projects like this create a large animal and rodent movement,} and we are established places out there, have to put up with that, and there's something else that AV solar really puts out real bad early in the morning and later in the evening. They're built right there on 138 out there about 170th West. 17-6

There's a glare that not only in the mornings you get the glare from the sun coming through your windshield and blinding you, but you actually get glare off the solar panels doing the same thing, and concentrated two glares hitting you at once, it's blinding at times when you hit it just right. 17-7

Like I say in the afternoons, when the sun's going down, we've had -- we've had places to where, I mean, even with sunglasses on you're shielding --

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trying to shield yourself from it because it is so bad.

{And so, therefore, I think any project that's going to build that close to a major roadway ought to have some type of a screen to completely block that kind of a situation.} We have enough deaths on 138 as it is. We don't need to be doing things that's going to increase it. 17-8

{Also the blowing dust, which anybody that lives around here knows this is a huge problem. We've had big writeups in the paper about it, which blowing dust adds to the valley fever} and which the wife spoke I was diagnosed with it. 17-9

In the paper, the AV Press there's about 450, 500 percent increased in valley fever being reported here in the last couple of years.

I mean, you know, I want to ask you guys -- or ma'am: Why is it you put all these big environmental studies, and{"Oh, we're worried about the rats. We're worried about the hawks, we're worried about the snakes."} Why is it you guys don't give a darn about human life? Valley fever kills. 17-10

There was an article in the New York -- New Yorker Magazine, I think it was January 2014 called "Menacing dust." It goes way back talking about valley fever at the turn of the century back in -- while they

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were training World War II pilots.

Big deal on it through the Bakersfield area talked about the big dust storm in bakersfield in '77 due to real dry conditions and this dust -- forget how many -- how many hours later showed up in Sacramento who had hardly any valley fever at all ever show up.

In that one week, they had 100 cases of it, 6 people died. So I just really ask you -- I mean, you know, hey, I'm all for -- for wind power. We have a wind turbine that we put up back in '03, and we are on the grid but we just -- you know, we breathe in it.

But doggone-it, when you got things that's killing people, when you got things that's running people's way of life, I really wish you would really reconsider some of these projects.

Thank you.

MR. MCCARTHY: Thank you.

And next.

MS. HOOYERINK: My name is Susan Hooyerink. I live at 45102 95th Street West, which is probably about 25 feet from portions of project four.

MR. MCCARTHY: Could you phonetically spell the last name.

MS. HOOYERINK: H-O-O-Y-E-R-I-N-K.

With all due respect, everyone that has spoken

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
17 – Rogers	17-1		See Topical response 2.3.4 Preservation of Rural Character, presented above.
	17-2		See Topical Response 2.3.3 Property Values, presented above.
	17-3	4.14	Section 4.14, Utilities and Service Systems discusses groundwater and groundwater impacts due to the proposed Projects.
	17-4		See Topical Response 2.3.10 Cell Phone Interference, presented above.
	17-5		Please see response to comment 17-4.
	17-6	4.4	Please see Section 4.4, Biological Resources, of the EIR for further discussion on the Projects' impacts to biological resources.
	17-7		This comment is in reference to glare from the PV panels. Please see Section 4.1.6.5.1 regarding Project lighting and potential for glare from the panels.
	17-8		Section 4.1.2.1.6, Project 6, addresses visual screening associated with Project 6.
	17-9		See Topical Response 2.3.7 Valley fever/Dust, presented above.
	17-10		The comment is noted and will be incorporated into the project record.

Comment Letter 18 – Susan Hooyerink

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Big deal on it through the Bakersfield area talked about the big dust storm in bakersfield in '77 due to real dry conditions and this dust -- forget how many -- how many hours later showed up in Sacramento who had hardly any valley fever at all ever show up.

In that one week, they had 100 cases of it, 6 people died. So I just really ask you -- I mean, you know, hey, I'm all for -- for wind power. We have a wind turbine that we put up back in '03, and we are on the grid but we just -- you know, we breathe in it.

But doggone-it, when you got things that's killing people, when you got things that's running people's way of life, I really wish you would really reconsider some of these projects.

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previous to me has moved to their residence within, like, the last -- last 15 years. My husband and I have been a resident of 95th Street West since 1986, 28 years ago.

We moved out there specifically to escape the building and overcrowding conditions in Lancaster. We actually lived in West Lancaster in the Quartz Hill area.

One of my major disagreements with the DEIR is the fact that everything was deemed nonsignificant as far as impacts, and the major impact besides all the health impacts is the esthetic impact. {We are -- our property is definitely going to take a hit.} Our neighbors are going to take a hit, and we are within 15 feet of the proposed boundary line. 18-1

The ten-foot buffer with a low vegetative perimeter just isn't going to cut it as far as esthetics. 18-2

Another problem that I found reading the DEIR is the project four is fenced by an eight-foot chain link fence topped with barbed wire, and it appears per the drawing -- or the diagram that they have that the fence crosses the southern extension of 95th Street West. That would be between Avenue I on the north and Avenue J west on the south, and Lancaster boulevard is 18-3

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a through road.

So I'm -- I'm a little concerned about that because our access to -- if there's going to be any open desert left, is -- is cut off. We would be forced to use the paved roadways for walking, and I have horses, and I always head west and ride out into the open spaces, and I wouldn't be able to do that any longer. 18-3 cont.

Another issue that hasn't been touched on is the Del Sur cemetery. I know mitigation measures have been addressed in the Environmental Impact plan, but I'm not for certain that those are significant enough or -- or will they create more of a problem because then the exact location of the cemetery will be easily recognized by the public out there. 18-4

Again, the water issue in the -- in the report it has a route that water trucks will travel, and then the diagrams that they show don't illustrate this. The diagrams illustrate water trucks coming from the Antelope Valley freeway heading West out West Avenue H to 110th Street, or they come down 110th Street from the Kern County line.

But those trucks heading out Avenue H, once you get past 90th Street West, Avenue H is not a paved road or a through road past 92.

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So there's nothing in the impact report stating that West Avenue H would be paved. So I don't know if that's just an oversight or is there plans to pave West Avenue H. 18-5

And everything else that the spokesmen prior to me speaking have touched on, {the values of the property,} {the less than practical mitigation of dust problems,} the {esthetic,} I mean, it's just -- it's not going to be a pretty sight looking out my front door. 18-6 18-7 18-8

And in the -- the Environment Impact they -- study, they showed a simulation photograph of what the project will look like from West Avenue I and 90th Street West, and it's a totally misleading photograph because it's taken more than half a mile away from project four. 18-9

So if I may, I would like to show these. This is the one -- this is the picture that is in the Draft, and then this is the actual picture of what it would look like from 95th Street West and my address, and I would also like to submit this photograph of 96th Street West and Avenue I prior to our drought.

It says in the EIR that people traveling down West Avenue I will not experience any negative impact because they'll be able to see open desert, and I refute that because there's already a project at 97th

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Street West, and it is a shock when you're traveling west on Avenue I to see open agricultural land, sparse homes, and then eight-foot chain link fence, and solar panels.

So, again, I -- I just wanted to reiterate that the mitigation that they have in the plan is not sufficient to take care of the esthetic detriment -- degradation to the property out there. 18-10

Thank you.

MR. MCCARTHY: Next.

MR. DEA: Robert Kerkes. Maureen Feller.

MR. MCCARTHY: Just give us your name and spell the last one phonetically.

MR. KERKES: My Name is Robert Kerkes, K-E-R-K-E-S. I live in Antelope Acres on 93rd Street West off of Avenue F. I'm the President of the Antelope Acres town counsel.

Tuesday I went to a tour of Sun Palace facility in Kern County. It's quite large, and they are -- they took me on a tour to show me some mitigation that they're doing for their dust control, and so they use the wood mulch quite a bit, but what is striking is that everything is dead. That the entire area is very sterile, and that nothing is growing.

I know part of it is the drought, but I know

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
18 – Hooyerink	18-1		See Topical Response 2.3.3 Property Values, presented above.
	18-2	4.1	Refer to Section 4.1, Aesthetics.
	18-3	4.13	The comment is in reference to Figure 3-10a. Figure 3-10a is correct. The 95th Street West County road public easement does not extend into the Project 4 site. The dirt road segment referenced in the comment is private property located within the proposed project area. In addition, the surrounding land is also private property and not "open land" designated for public use. Hence, the Applicant has no obligation to maintain access to this private land.
	18-4	4.5.5.2.3.4	Section 4.5.5.2.3.4, Project 4, describes the Del Sur Cemetery. The Del Sur Cemetery has been located, the location will be kept confidential. Mitigation measure CUL-4 ensures the avoidance and preservation of the Del Sur Cemetery.
	18-5		See Errata Section 4.13 for revised Figures 4.13-3 and 4.13-4.
	18-6		See Topical Response 2.3.3 Property Values, presented above.
	18-7	4.3.7	Section 4.3.7, Mitigation Measures, discusses mitigation of fugitive dust.
	18-8		See Topical Response 2.3.1 Visual Simulations/Aesthetics, presented above.
	18-9		See Topical Response 2.3.1 Visual Simulations/Aesthetics, presented above.
	18-10		The comment is noted and will be incorporated into the project record.

Comment Letter 19 – Robert Kerkes

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Street West, and it is a shock when you're traveling west on Avenue I to see open agricultural land, sparse homes, and then eight-foot chain link fence, and solar panels.

So, again, I -- I just wanted to reiterate that the mitigation that they have in the plan is not sufficient to take care of the esthetic detriment -- degradation to the property out there. 18-10

Thank you.

MR. MCCARTHY: Next.

MR. DEA: Robert Kerkes. Maureen Feller.

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Tuesday I went to a tour of Sun Palace facility in Kern County. It's quite large, and they are -- they took me on a tour to show me some mitigation that they're doing for their dust control, and so they use the wood mulch quite a bit, but what is striking is that everything is dead. That the entire area is very sterile, and that nothing is growing.

I know part of it is the drought, but I know

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also part of it is that they haven't really been required to have to do too much as far as planning things. So that's a serious problem. {The loss of habitat and the effect upon the environment is dramatic since these facilities have come in.} 19-1

I also feel as if the use of "ag" land for these solar panels is really not correct because "ag" land is open space, and these are outdoor industrial facilities that should really be zoned as an industrial type project because it's taking away open space, it's changing the characterize of the west side dramatically. 19-2

Where I live right now, of course, we are {really being affected by dust dramatically.} We are the worst hit area in the whole valley at this point, and a lot of our dust is coming from the facility's infrastructure. 19-3

That -- this is never brought up, and this is cumulative --{cumulative impacts to our environment that -- we have all these cumulative impacts and obviously they don't seem to be -- being recorded or they're not seemed addressed, or they just seem to go on, and so they seem to be ignored to me because they're very severe.} 19-4

We have another season like last season, and

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already the drought is as bad as it is, and we're going to see even worse storms than we did before, and even if we have some rain, it's still going to be dramatic.

And the water being used now, well, since we're in such a strong drought, it seems to me like we might need that water for something else. We don't know how long this drought's going to go on. There's no water coming from northern California at all now. Zip. 19-5

So I don't see why we continue to do these kinds of projects and using water that is a lot of water. Taken a lot of photographs of them out there spraying water. It's a lot of water.

It could be used for something else. Could be used for farming. {I don't know why we're giving up on farming. Farming is at least an open-space project and brings in some work and some money to the area.} 19-6

Also the problem with this projects will go through, and you guys probably will decide on doing them, and should that be the case, in terms of mitigation, we feel as if they -- Silverado should have to give the max amount of land possible, and we feel as if Antelope Acres is very deserving, finally, somewhere along the way, some{mitigation that's going to help us out and help us deal with the problems that we have as 19-7

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19-7 cont.

1 far as the dust control.
2 I'm seeing animals -- it's partly the drought,
3 but I'm seeing animals now that I don't see anymore.
4 Photographs I took of various hawks and -- they're not
5 there right now. Good part of it is that there is no
6 vegetation in the area.

19-8

7 Lack of vegetation goes all the way into Kern
8 County from all the way over from about Avenue I, and
9 this is a serious problem. So that's got to be
10 addressed.

19-9

11 And the windy season is coming up, February
12 through May, and are they going to be constructing
13 during the windy season, or is there going to be no
14 construction during the windy season, or what might
15 happen there?
16 And I see that, Ryan, where's your beard?
17 MR. GALERIA: Back to normal.
18 MR. KERKES: That was a good looking beard you
19 had.
20 MR. GALERIA: I know.
21 MR. KERKES: Now it's gone.
22 MR. GALERIA: We were almost twins.
23 MR. KERKES: Anyway, Ryan came by our town
24 counsel and said hello the other day, but we don't
25 really have a partnership with these guys you

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1 understand. That they have come and have talked to us,
2 but they haven't really made any agreements or any
3 arrangements or any promises or anything when it comes
4 down to it.
5 So I think my time is up -- oh, greenhouse
6 gas. I just want to say one thing about that also
7 because there's some new information coming up that
8 when you take out the desert plants, you eliminate
9 their ability to sequester carbon.
10 So now they're no longer sequestering carbon
11 because you've gotten rid of them. Now we have bare
12 ground, and they're all bare -- every one of these
13 projects is totally bare -- now you have bare ground.
14 And so now the bare ground gives off the
15 carbon, and that's not being computed. How much carbon
16 does the ground give off? And when the "kaviche" below
17 the surface of the ground is exposed, it gives off a
18 lot of carbon, and so I've taken a lot of photographs
19 of a lot of "kaviche" that's been exposed, especially
20 with these dust storms.
21 So -- and to some degree you're not
22 accomplishing what green power says it's accomplishing.
23 Thank you.
24 MR. MCCARTHY: Thank you.
25 And next, give us your name.

19-10

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19 – Kerkes	19-1	4.4.6	Section 4.4.6, Impacts Analysis, describes impacts to wildlife habitat from the proposed Projects.
	19-2	4.10	See Topical Response 2.3.2 Zoning, presented above.
	19-3	4.3	See Topical Response 2.3.7 Valley Fever /Dust, presented above.
	19-4	4.1 thru 4.14	Sections 4.1 through 4.14 discuss the cumulative impacts for the Projects.
	19-5	4.14.4.1	See Topical Response 2.3.5 Water Supply, presented above.
	19-6	4.2	Refer to Section 4.2, Agriculture and Forestry Resources.
	19-7	4.3.7	See Topical Response 2.3.6 Dust Control, presented above.
	19-8	4.4.6	Please refer to Section 4.4.6, Impacts Analysis, regarding impacts to vegetation from the proposed Projects.
	19-9	4.3	Refer to Section 4.3, Air Quality, for analysis of impacts to air quality and fugitive dust. Also, refer to mitigation measure AQ-11 which states “Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.”
	19-10	4.7	Section 4.7, Greenhouse Gases and Climate Change, discusses greenhouse gases.

Comment Letter 20 – Maureen Feller

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MS. FELLER: Maureen Feller.

MR. MCCARTHY: Spell your last name phonetically.

MS. FELLER: F, as in Frank, E-L-L-E-R.

First I'd like to ask a question: Are you guys all representatives of LA County?

MR. MCCARTHY: Entire staff here is the Department of Regional Planning.

MS. FELLER: Okay. Okay. I was curious.

Because you know what, it doesn't matter how many laws they come up to take care of the dust. We already have dust mitigation laws, and they're not being enforced.

I'm on the west side every other day. I'm out there walking my critters. A lot of times I take kids out there with me. It's the best part of the Antelope Valley. So you guys don't live here, but you've come in, and you're gambling away the best part of our town.

I already stand up there. I already see acres of solar panels that are our valley floor. It's already started. You guys are chopping up every little bit of the best part of our valley, our open spaces and you're giving it away.

I know people who have had valley fever. 20-1

There's people in this room today who have valley

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fever, but if you're not -- if you're sending your "nat" teams out because people are parking their trucks on their lots instead of maintaining some kind of adherence -- making these people maintain adherence to the dust mitigation laws, it's not being done. 20-1 cont.

I grew up here. I was born here. I was born a half a block from where we're sitting right now. I have never seen the brown-out conditions we had in the center of town like I saw this last year.

So the first one hit. Do you think they didn't jump on the dust mitigation after that, and we still have two more after that. I stood on the hills on the west side on Wednesday afternoon and thought I saw a fire on the east side.

Somebody was doing construction over there. I saw two miles of dust in the air. It's not being dealt with. There were certain conditions for the one on 170th to be built. Part of it was landscaping. 20-2

Every time I drive by there -- unless they changed it. Somebody might want to correct me -- but they have the cheapest little Evergreens you could find, maybe a foot and a half, and they were all dead. So so much for the conditions of landscaping.

I just -- it really upsets me what we're giving up here. There's going to be another hearing

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almost a 300-acre parcel in this general area at the LA Hall of Records on the 12th. These should be held up here because we're the ones it's affecting.

When I'm out there -- when I'm out walking the dogs, we don't get rain, and everything's being blamed on the drought, but let me tell you, these people were waiting for rain to do their job for them. That's the only thing the drought had any affect on. They weren't doing their jobs to keep the dust down.

Now, if you go out and walk anywhere on the west side that hasn't been disturbed, you will see a crust, you can step through it, that takes a decade of moisture at night just due to build up that crust. 20-3

I have seen the clouds of dust come off 170th. While I'm standing in a drought-affected area two miles away, there is no dust coming off of that because of that thin crust that has developed over years.

For those who say, "Not my backyard," I'm all for putting it in my backyard. I want it on my roof.

{This is why it's so unnecessary. We can have these panels on our roof. They could give the owners a 15 percent break on their -- their bills, and that would give them 85 percent profit power.} 20-4

The infrastructure they say isn't there is there because people who have got that kind of money --

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what they quoted to me was what I paid on my house. 60,000 dollars to get solar when they could be putting these on our roofs getting the same amount of power, leaving the best part of the Antelope Valley untouched.

And if this is happening --{if you guys are giving away our open spaces, I got to ask: What do we get in return? Is this going to be part of the Lancaster power authority?} Do you have we have any city represents here today? None? 20-5

MR. MCCARTHY: No. There's no city representatives.

MS. FELLER: Okay. As you give away one of best things in the Antelope Valley and you're leaving us with{dust, with valley fever,}{with our wide open spaces taken away,} I got to ask: What do we get in return? 20-6 20-7

Put it in my backyard. Put it on my house. Don't take what we have. { There is no water. We've already overbuilt. There's no extra water up here} 20-8

Thank you.

MR. MCCARTHY: Thank you.

MR. DEA: Carol Mackenzie. Larry Mackenzie.

MS. MACKENZIE: Oh. That's just me.

MR. DEA: Okay. Then Judy Watson.

MR. MCCARTHY: Give your name and spell it

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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
20 – Feller	20-1		See Topical Response 2.3.7 Valley Fever/Dust, presented above.
	20-2	4.3.7 4.1	Please see response to comment 20-1 for information on dust control. Refer to Section 4.1, Aesthetics, for additional information on visual screening and the landscaping plan.
	20-3	4.6.2.2.6	Soil erodibility is discussed in Section 4.6.2.2.6, Erodibility and Expansive Soils.
	20-4	5.0	See Section 5.0, Alternatives, for alternatives considered.
	20-5	3.3	Section 3.3, Proposed Projects 1 – 6 Objectives, describes the purpose of the proposed Projects. Also note that the proposed Projects would be located on private land, not on public open space.
	20-6		See Topical Response 2.3.7 Valley Fever/Dust, presented above.
	20-7	4.10.5	See Topical Response 2.3.4 Preservation of Rural Character, presented above.
	20-8	4.14.4.1	See Topical Response 2.3.5 Water Supply, presented above.

Comment Letter 21 – Carol Mackenzie

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phonetically.

MS. MACKENZIE: Pardon me?

MR. MCCARTHY: Spell the last name phonetically.

MS. MACKENZIE: M-A-C-K-E-N-Z-I-E.

Hello. I live in Antelope Acres, and we -- my husband and I are concerned a lot about all these solar farms going in, but the -- one of the things that really step -- got on our minds was the one that is going to be on 70th Street and Avenue G.

And what we're concerned about is what is going to with --{people have mentioned the glare, and we have seen the glare coming from the solar panels. How is that going to affect Fox Field? } Because Fox Field is right -- the landing pattern is right in -- in line with that solar panels going in -- or supposedly. 21-1

And especially with the planes that do it for forestry, they fly very low, and if the wind is giving a certain way, they fly right over those or landing or taking off.

And another thing we were curious about is if all these solar farms are put all over the place and perhaps they do go bankrupt, if the government keeps giving -- stops giving them funding, how are these solar panels going to be taken out? 21-2

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Is there a method to get rid of these once they are put in? Are they going to sit there until they find a way, or -- or is there a plan to get rid of them if possible, if needed? 21-2 cont.

And we have seen -- have -- have the glare on Sierra Highway when we are driving there, and -- in our car. So we were curious what it would affect planes landing and taking off. 21-3

And also Fox Field is expanding for the air show in the spring. So with their new pads to take off and land, they will get larger and larger planes in which might be affected by that -- with the solar panels put in.

And I think that's what I wanted to talk about.

MR. MCCARTHY: And next.

MS. WATSON: I'm Judy Watson. I'm from the west side of town. I'm from "CC of WAV," that's "Concerned Citizens of West Antelope Valley."

MR. MCCARTHY: Can you phonetically spell the last name.

MS. WATSON: W-A-T-S-O-N.

MR. MCCARTHY: Thank you.

MS. WATSON: I've lived in this valley for 53 years. I live on the west side up in the canyon, and I 22-1

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
21 – Mackenzie	21-1	4.10	As stated in Section 4.10 Land Use, the Projects would not be located within the Airport Influence Area (AIA) and would not have an adverse impact to the General William J. Fox Airfield (Fox Airfield). Please see Section 4.1 Aesthetics, Section 4.8 Hazards and Hazardous Materials; and Section 4.10 Land Use for further analysis of the Projects' impacts to General William J. Fox Airfield.
	21-2	3.4.13	Section 3.4.13, Decommissioning Plan, addresses decommissioning of the proposed Projects.
	21-3	4.10	Please see response to comment 21-1.

Comment Letter 22 – Judy Watson

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Is there a method to get rid of these once they are put in? Are they going to sit there until they find a way, or -- or is there a plan to get rid of them if possible, if needed? **21-2 cont.**

And we have seen -- have -- have the glare on Sierra Highway when we are driving there, and -- in our car. So we were curious what it would affect planes landing and taking off. **21-3**

And also Fox Field is expanding for the air show in the spring. So with their new pads to take off and land, they will get larger and larger planes in which might be affected by that -- with the solar panels put in.

And I think that's what I wanted to talk about.

MR. MCCARTHY: And next.

MS. WATSON: I'm Judy Watson. I'm from the west side of town. I'm from "CC of WAV," that's "Concerned Citizens of West Antelope Valley."

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can look down over all of these solar panels. It looks like a sea of glass, and it's getting worse. It's overkill. 22-1 cont.

I can see where the dust storms start. It looks like something from a foreign country like the Sahara Desert. {The dust is huge. It blew -- blows up into the air a mile or two, and I can see it all going towards Antelope Acres, and that area -- there's been accidents on our freeways. They had to close the freeways down.} 22-2

I have friends that live in Antelope Acres, and they have a little mini sand dunes inside their windowsills and dust is filtering through the air, it's coming under their doorways, it's building up in the corners of their homes.

Another thing that wasn't brought up was these -- you would be trucking water in. We already have crumbling roads on the west side. Who is going repair these crumbling roads? What's -- what's going to happen with those? 22-3

Also what kind of binders do you put in these soil? Binding residue or chemicals or whatever -- what -- what are these? Also are these recyclable? What happens at the end of their lifetime? What do you do with old solar panels? 22-4

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I don't believe they are recyclable. They have cadmium in them I believe, which is a poison. I don't know if these panels have them or not, but that's always a consideration, and if there's a fire or lightening strikes, are these fumes going to be spread throughout our valley? 22-5

I mean, there's millions of panels out there. I can see from where I live, and it's just an ocean of glass out there. It's just only the beginning. I mean, this was the -- west side was the -- the wildflower area of Antelope Valley.

And this picture right here is approximately where AV solar one is now. See all of this? {And when it does rain again, there's not going to be any flowers left. We're the wildflower center of this area, and there won't be any left.} This is -- this whole desert area is being demolished and disfigured and destroyed. 22-6

And I guess that's all I have to say. Thank you.

MR. MCCARTHY: Thank you.

MR. DEA: Margaret Rhyne. Robert Tarver.

MS. RHYNE: I'm Margaret Rhyne. I've lived in the Antelope Valley since 1973. I am a long time volunteer at the California -- Antelope Valley California Poppy Reserve.

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
22 – Watson	22-1	4.1.1, 4.1.3, 4.1.5, 4.1.6.1, 4.1.7	See Topical Response 2.3.1 Visual Simulations/Aesthetics, presented above.
	22-2	4.3.7	Section 4.3.7, Mitigation Measures, discusses mitigation of fugitive dust.
	22-3	4.13	Section 4.13, Transportation and Traffic, discusses transportation impacts and mitigation measures related to construction and operation of the proposed Projects. This includes mitigation for any the repair or reconstruction of construction routes.
	22-4	4.3 3.4.13	Refer to Section 4.3 for further discussion of the proposed use of nontoxic chemical soil stabilizers. Section 3.4.13, Decommissioning Plan, addresses decommissioning of the proposed Projects.
	22-5	4.8.2.6	See Topical Response 2.3.8 Cadmium Telluride Containing Photovoltaic Panels, presented above.
	22-6	4.4.6	Refer to Section 4.4.6, Impacts Analysis, regarding impacts to vegetation from the proposed Projects.

Comment Letter 23 – Margaret Rhyne

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MR. MCCARTHY: Can you spell your last name phonetically.

MS. RHYNE: R-H-Y-N-E. I'm also a member of Friends in Antelope Valley Open Space. We already submitted a letter previous to the -- in response to the notice of preparation relaying many of our concerns about this project. I see nothing in the Draft Environment Impact Report that answers these concerns.

I see assertions about the esthetic value -- esthetic -- esthetic -- effect of this project that I highly object to. There's an assertion in the DEIR that, quote, "The scenic character on the valley floor is generally low." 23-1

I believe the people that live out in that area, the thousands of people that visit the Antelope Valley California Poppy Reserve would not agree that this is an area of low scenic value.

I do not understand the assertion that only two years of watering is needed for vegetation. I think also the people that live out in this area can tell you that that's not adequate, that it will die after the end of those two years. 23-2

So that ten-foot buffer will no longer exist, and {what provisions are in the conditional use permit that will guarantee the watering of this ten-foot 23-3

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1 buffer for the life of the project.
2 We see that those projects change hands many
3 times, and so what will happen in the future to this
4 ten-foot buffer of vegetation that's supposed to
5 provide some relief to the esthetic damage done to the
6 area.

23-3 cont.

7 I also have questions about the mitigation
8 land. There were some formulas given. I'm not sure
9 exactly what is meant. One assertion is that replaced
10 ratio of one acre of replacement land for every three
11 acres of development. If the replacement land nesting
12 and foraging habitat. Another scenario talks about one
13 acre for every two acres of development. Another
14 scenario talks about a one-to-one ratio.
15 Looking at the one-to-one ratio scenario, does
16 that mean that, since this project is 987 acres, that
17 987 acres of mitigation land will be provided? Looking
18 at the lower amount, if it's one-to-two, does that mean
19 493.5 acres? If it's one-to-three, does that mean 329
20 acres? Seems to me that those acreage amounts should
21 be spelled out more clearly.

23-4

22 I also have questions about the seed mix that
23 is mention that I guess will go underneath the panels.
24 what -- is there a project that exists that shows that
25 this type of seed mix that is contemplated will

23-5

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actually grow in a habitat like this where the watering will only go on for two years and it will be in partial shade and partial sun underneath the solar panels? 23-5 cont.

I'm also concerned about mention of using native plants without a specific plan about where they're going to get all these native plants.

And basically no matter what amount of mitigation land is provided or what landscaping plan is provided, the bottom line is {to build a project of this magnitude in this area under the present drought conditions and subject the people that are living in the area to the resultant contamination from dust and valley fever is it really unconscionable.} 23-6

Thank you.

MR. MCCARTHY: Next.

MS. TARVER: Good afternoon. I'm Robin Tarver, T-A-R-V-E-R. I moved to Antelope Valley 25 years ago with my two children. I'm now a grandmother of five, and unfortunately number two, my grandson was diagnosed with valley fever.

He loved playing football and basketball, but once he got into baseball, there was no longer a desire for football or basketball.

When he was diagnosed with valley fever, there was two concerns. One, he doesn't live in Bakersfield.

<table>
<tr><th>Comment Letter Number</th><th>Comment Number</th><th>Section Number in EIR</th><th>Response to Comment</th></tr>
<tr><td rowspan="6">23 – Rhyne</td><td>23-1</td><td>4.1</td><td>See Topical Response 2.3.4 Preservation of Rural Character, presented above.</td></tr>
<tr><td>23-2</td><td>4.1.7</td><td>Refer to Section 4.1.7 for additional information regarding the landscaping plan. The applicant will comply with all County landscaping regulations.</td></tr>
<tr><td>23-3</td><td>4.1.7</td><td>Please refer to Section 4.1.7, Mitigation Measures, regarding landscaping mitigation measures. The applicant will comply with all County landscaping regulations.</td></tr>
<tr><td>23-4</td><td>4.4.8</td><td>Tables 3-2 and 3-5 in Section 3.0 of the EIR provides the total acreage of land needed for each proposed project and the estimated areas of disturbance associated with each of the proposed Projects. The table provided below provides a summary of the total developed acreage associated with the proposed Projects.
<table>
<tr><th>Project #</th><th>Landscape</th><th>Undeveloped</th><th>Total Project Size</th><th>Total Developed Acreage</th></tr>
<tr><td>1</td><td>1.2</td><td></td><td>240</td><td>238.8</td></tr>
<tr><td>2</td><td>0.51</td><td>39</td><td>157</td><td>117.49</td></tr>
<tr><td>3</td><td>1.47</td><td></td><td>135.61</td><td>134.14</td></tr>
<tr><td>4</td><td>1.94</td><td></td><td>256</td><td>254.06</td></tr>
<tr><td>5</td><td>0.59</td><td></td><td>160</td><td>159.41</td></tr>
<tr><td>6</td><td>0.31</td><td></td><td>38.49</td><td>38.18</td></tr>
</table>
The total developed acreage per project would be the baseline to utilize in the mitigation lands that would be provided for the specified foraging habitat of the Swainson’s hawk, burrowing owl, and special-status migratory and wintering birds. The alkali mariposa lily has not been identified on Projects 1-6 but a preconstruction survey would be done prior to the start of construction. If alkali mariposa lilies are found on a project site and cannot be avoided, the acreage baseline would be established in the pre-construction survey in consultation with LACDRP and CDFW. If alkali mariposa lily could not be avoided it would be mitigated at a ratio of 1:1 of area disturbed to area provided in mitigation. Please see section 4.4.8.1, Biological Mitigation Measures Affecting All Six Solar Projects, and appendices B-2 and B-4.</td></tr>
<tr><td>23-5</td><td>4.4.8.2</td><td>Please refer to Section 4.4.8.2, Level of Significance After Mitigation, regarding seed mix and use of native plants.</td></tr>
<tr><td>23-6</td><td></td><td>See Topical Response 2.3.7 Valley fever/Dust, presented above.</td></tr>
</table>

Comment Letter 24 – Robin Tarver

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1 actually grow in a habitat like this where the watering
2 will only go on for two years and it will be in partial
3 shade and partial sun underneath the solar panels? 23-5 cont.
4 I'm also concerned about mention of using
5 native plants without a specific plan about where
6 they're going to get all these native plants.
7 And basically no matter what amount of
8 mitigation land is provided or what landscaping plan is
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10 magnitude in this area under the present drought 23-6
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12 the area to the resultant contamination from dust and
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14 Thank you.
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16 MS. TARVER: Good afternoon. I'm Robin
17 Tarver, T-A-R-V-E-R. I moved to Antelope Valley 25
18 years ago with my two children. I'm now a grandmother
19 of five, and unfortunately number two, my grandson was
20 diagnosed with valley fever.
21 He loved playing football and basketball, but
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23 for football or basketball.
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25 was two concerns. One, he doesn't live in Bakersfield.

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So after going to the doctors here in Lancaster for a couple of months, my daughter took him to Sunset, and we're taking Kaiser.

When he was laying on a table with his head open and the surgeon -- and the team looking at cot seed in his head, they came out after they closed him and said, "He couldn't have valley fever. You folks live in Lancaster, don't you?" I said, "Yes." He said, "Valley fevers's not in Lancaster."

And so after about five days of my grandson being on the wrong medication, they found out, yes, he does have valley fever.

The three points I want to bring up today -- one, I wanted to say to the people of Antelope Acres, I so appreciate you and I agree with everyone who came and spoke before me, but what happens in Antelope Acres don't stay in Antelope Acres.

The wind is not a respecter of persons. We've never lived on the west side. We lived on the east side of Palmdale and the east side of Lancaster. He has played baseball on the west side of Lancaster.

However, one of the things that concerned me was that nobody talked to us about valley fever as we spent those nights at baseball games or during practice. No one said -- well, there was one time when

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they said it's actually too windy to play, but most times no city, no county, no officials told any coaches to stop games. No parks, no recs, no programs.

The second thing is, I would like to see the county of Los Angeles do a better job to inform the medical staff as well as the staff at our schools. 24-1

That was ridiculous that they were looking at cot seed, know what cot seed is, but because we live in Lancaster, to close him up, give him the wrong medication because the myth was still living until UC Berkeley, I believe, got the diagnosis a week later that it was cot seed.

I want to make sure that point is received, and I'm just so overwhelmed right now with emotion and frustration. There is a need for counseling for families. We had no idea until that day, which was late August, early September that valley fever was something that we should have been concerned about.

So now four or five months later, our lives are supposed to go on as if this is not going to affect us for the rest of Jonathan's life, my grandson? And to sit here and to talk all these wonderful and nice fuzzy things?

I really hope that you can see the tears that I'm fighting back and the emotions that I'm trying to

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suppress because this has been devastating and overwhelming for my family, and as you can see by this empty room, as you can see as we head into a political season that there is no politicians here that obviously the word is not out, that this is not an Antelope Acres problem.

This is an Antelope Valley problem, and until it's addressed as an Antelope Valley problem, the ignorance will continue, and we will have people who aren't as fortunate as my grandson to be diagnosed early and will continue to die from valley fever. 24-2

So I do appreciate you coming out today and hearing our concerns, and I'm looking forward to seeing what actions you'll be taking in the future.

Thank you.

MR. DEA: Shindana Weathers. Krisy Reuter.

MS. REUTER: I'm Krisy, no T, Reuter, R-E-U-T-E-R.

MR. MCCARTHY: Speak up a little bit.

MS. REUTER: Reuter, R-E-U-T-E-R.

If I may, I need to go to the map. I live right here. This is my home.

MS. RUIZ: Miss Reuter, can you please hold for a second.

MR. MCCARTHY: We are going to have to get you

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
24 – Tarver	24-1		The comment is noted and will be incorporated into the project record.
	24-2		See Topical Response 2.3.7 Valley fever/Dust, presented above.

Comment Letter 25 – Krisy Reuter

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This is an Antelope Valley problem, and until it's addressed as an Antelope Valley problem, the ignorance will continue, and we will have people who aren't as fortunate as my grandson to be diagnosed early and will continue to die from valley fever. 24-2

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Thank you.

MR. DEA: Shindana Weathers. Krisy Reuter.

MS. REUTER: I'm Krisy, no T, Reuter, R-E-U-T-E-R.

MR. MCCARTHY: Speak up a little bit.

MS. REUTER: Reuter, R-E-U-T-E-R.

If I may, I need to go to the map. I live right here. This is my home.

MS. RUIZ: Miss Reuter, can you please hold for a second.

MR. MCCARTHY: We are going to have to get you

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a portable mic because otherwise your testimony will not show up on the -- on the record.

MS. REUTER: I've got this map. Just see right here. Two houses we'll be talking about.

MR. DEA: What's the street?

MS. REUTER: This is project three according to the map. It's number four on the blue sheet.

MR. MCCARTHY: And the -- the record will just state that she pointed to the map depicting the location of project three.

MS. REUTER: Okay. So I've highlighted my house. So as you can see, the project is literally on top of my home.

So when I moved out there to my home, which is not a rental and not a temporary home, it's my home, and I picked that home for the fact that it's a very quiet area. It's very, very undisturbed.

There's a 360 degree view. You can see the Tehachapi's, you can see the plain lands of Apollo Park, Fox Field, you can see up into Mountain High. sometimes we just stand out there or walk around our property and just admire our view.

We're free of protrusion. It's very -- it's an area of solitude, and that -- that is a priceless quality to have to be able to live in a home that is --

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brings a sense of solitude and safety. Safety is key as I'm out there with just my children and I. My parents do live nearby. That's the second house that I highlighted here on the map.

If we go back to the issue of quietness, obviously this project would bring extreme {noise,} {dust,} and {pollution} that others have spoke about. There was a tractor out there about four months ago, a little tiny little tractor, one little guy, and it disrupted the entire day with the amount of noise and dust it produces with just a single tractor, I assume getting ready to put mobile homes or whatever the folks that are going to be working out of need. 25-1 25-2 25-3

{The 360 degree view will obviously be obstructed, and it will be nothing short of an eyesore.} 25-4

That would be putting it mildly. {I don't know how many people would be working on this project or how long, the equipment. All of that would obviously impede on the solitude and be nothing short of a massive intrusion.} 25-5

Safety is -- is just such a huge concern to me. I -- I can't illustrate or explain how unsafe I would feel with I don't know how many people coming and going right near my home. 25-6

My access road is how my children get to the 25-7

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bus stop. They walk back and forth by themselves every day. My parents watch them from the second location I had pointed to with binoculars to make sure they get to and from my home safely.

Are people going to be watching to see when I come and go? Are people going to be watching my children? This is just a safety nightmare for me.

25-7 cont.

This highlighted area in between the houses and in between these -- right -- right smack in the middle of this almost square of a project is the access road that my kids ride their bikes and walk to my parent's house sometimes two -- sometimes two to three times a day.

That's obviously going to be completely destroyed. So at this point I have no idea how my kids will be watched for and cared for when this whole desert area will be demolished.

When I went out to investigate one of the solar plants out on about 160th and I, I was looking around for a house to ask questions to, assuming that would be possibly the caretakers. So are people going to be coming to my home assuming I'm the -- I'm the caretaker because I'm right there?

I mean -- I'm -- I'm -- it's as if I was heavily involved as far as where this is located and

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where my home is. You would think that I was in favor of it and reached out to have it put there, but it's the opposite. I -- I have received letters, but I have not been contacted or assured in any way that -- that my concerns would be alleviated.

There's plenty of room in other areas where it's not on top of people. It's not some so much about being against these projects. It's that they should not be so close to people's homes. 25-8

Although that area is obviously not my land, my kids and I, my family, we've respected it, we've appreciated it, and we've valued it, and we would very much like it to be left as it is with its natural beauty. 25-9

It's my understanding that the solar panels are as dangerous as power plants in terms of the electric static currents. I would like that addressed today if you're able to explain if that's accurate. Because as we all know, people do not live right under power plants. 25-10

So I feel very uncomfortable living right next to a solar power plant that, if it's true, puts off the same type of electric static currents.

So more questions I have are at the very least 25-11

{who's going to clean my house with this massive amount

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of dust and dirt?}{How is my water going to be guaranteed?} I'm on little tiny well right now. This looks like it would not only suck my water but anyone within five miles. Do I get another well to the tune of 20,000 from you guys? 25-11 cont. 25-12

{How do you guarantee our safety?} My children and I living right there with people we don't know and construction workers -- nothing against construction workers -- my dad was a construction worker, but I don't need people coming and going on my road on a constant basis. And our health. How is that going to be guaranteed? 25-13

Thank you for your time.

MR. MCCARTHY: Thank you.

MS. WEATHERS: Shindana Weathers, W-E-A-T-H-E-R-S.

When I first came, I wasn't sure if I was going speak, but after hearing the measures that Silverado is going take, I thought I should bring a little reality to that.

My concerns is when the digging begins, no matter the length or the extent of it, spores will be blowing in the air. I'm speaking on behalf of my son Jonathan. 26-1

Last August he was diagnosed with valley

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
25 – Reuter	25-1	4.11	Section 4.11, Noise, discusses noise impacts.
	25-2	4.3.7	See Topical Response 2.3.6 Dust Control, presented above.
	25-3	4.3	See Topical Response 2.3.6 Dust Control, presented above.
	25-4	4.1	See Topical Response 2.3.1 Visual Simulations/Aesthetics, presented above.
	25-5	3.5.1.3	Section 3.5.1.3, Construction, depicts the construction schedule for the Projects.
	25-6	4.12	Please see Section 4.12 Public Safety for further analysis.
	25-7	4.12	Please see Section 4.12 Public Safety for further analysis.
	25-8		The comment is noted and will be incorporated into the project record.
	25-9		The comment is noted and will be incorporated into the project record.
	25-10		The design, installation, and operation of the facility will comply with all applicable local, state, and national electrical codes that ensure the safety and protection of local residents and the public at large. Additionally, all electrical design and installation will be subject to review and inspection by Los Angeles County.
	25-11	4.3.7	See Topical Response 2.3.6 Dust Control, presented above.
	25-12	4.14.4.1	See Topical Response 2.3.5 Water Supply, presented above.
	25-13	4.12	Please see Section 4.12 Public Safety for further analysis.

Comment Letter 26 – Shindana Weathers

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Thank you for your time.

MR. MCCARTHY: Thank you.

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26-1 cont.

fever.} He's been through two brain surgeries, five hour infusion treatments, he takes several pills four times a day because of value fever.

So my question to you and to the city of Lancaster is: Who is going to be held responsible for the health of the residents of Antelope Valley?

Thank you.

MR. DEA: Glenn Galloway. Ginger Stout.

MR. GALLOWAY: Yes, good morning. My name is Glenn Galloway, and I'm a resident of the west valley. My neighborhood is a corner of 110th Street West --

MR. MCCARTHY: Could you spell the last name phonetically.

MR. GALLOWAY: Yes. Last name Galloway, G-A-L-L-O-W-A-Y. May I continue? Okay.

When I decided to move to the area, my wife was asking me where I was one day, and I went to the west side to see a parcel of land. She was a bit concerned when I got back to her house -- we hadn't married at that point in time -- and went out there to 110th, 112th Street and Avenue I.

I looked over, and I said, "I don't know if I could live out here." She decided that's where we want to be. I grew up in the city of New York. I have seen skyscrapers, and I've seen concrete, but I can tell you

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26 – Weathers	26-1		See Topical Response 2.3.7 Valley fever/Dust, presented above.

Comment Letter 27 – Glenn Galloway

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26-1 cont.

1 fever.} He's been through two brain surgeries, five
2 hour infusion treatments, he takes several pills four
3 times a day because of value fever.
4 So my question to you and to the city of
5 Lancaster is: Who is going to be held responsible for
6 the health of the residents of Antelope Valley?
7 Thank you.
8 MR. DEA: Glenn Galloway. Ginger Stout.
9 MR. GALLOWAY: Yes, good morning. My name is
10 Glenn Galloway, and I'm a resident of the west valley.
11 My neighborhood is a corner of 110th Street West --
12 MR. MCCARTHY: Could you spell the last name
13 phonetically.
14 MR. GALLOWAY: Yes. Last name Galloway,
15 G-A-L-L-O-W-A-Y. May I continue? Okay.
16 When I decided to move to the area, my wife
17 was asking me where I was one day, and I went to the
18 west side to see a parcel of land. She was a bit
19 concerned when I got back to her house -- we hadn't
20 married at that point in time -- and went out there to
21 110th, 112th Street and Avenue I.
22 I looked over, and I said, "I don't know if I
23 could live out here." She decided that's where we want
24 to be. I grew up in the city of New York. I have seen
25 skyscrapers, and I've seen concrete, but I can tell you

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that God did do something for the west valley.

I see people all over the world coming out there. Tens of thousands of people on Avenue I going by there. When the poppies are out, when the color is purple and gold, there is nothing like it.

I'm often told that acts of God will often shields liability for insurance companies, but sometimes acts of God should not be interrupted, and that is a beauty that I have seen.

My son was raised out there, went to a local high school, Lancaster, and my daughter went to Quartz Hill. They didn't like each other. So they went to separate schools, but here's what they did say when they went to -- and came back, I said, "How was the experience," and he told me something, "I was prepared because I lived in the desert."

He's not going to have a desert anymore. His grandkids, my grandkids are not going to be able to see the poppy field or hear the owls or sometimes see the snakes because sometimes progress gets in the way of what God just intended to remain as it is.

So among this appeal for those veterans and those people who have come to know Antelope Valley, of those people all over the world have come to see the magnificence of the desert, don't destroy it.

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If we can live in terms of having high tech, let's say, solar power, that solar power should be on people's property, on their homes, the least restricted alternative. I believe that to be the case. 27-1

I've heard eloquent speakers up here that spoke in terms of the {health and welfare and safety our neighborhoods. Those are considerable risks, those are considerable issues when it comes to making public policy,} but I also understand that there are people who have lived here for a lot longer than I have. 27-2

When you venture out there and you see the {wide open spaces }and you can see the {dark skies and the lights just glisten, that is a way of life that will forever be disturbed.} 27-3 27-4

And so not only for {health reasons,} not only for {ecological reasons,} but I think the people who have gone and come back and respected the majesty of that place, let's give them the opportunity of having some peace and some joy. 27-5 27-6

That's what I think.

MR. MCCARTHY: Proceed.

MS. STOUT: My name -- my name -- can you hear me?

MR. MCCARTHY: Yeah.

MS. STOUT: My name is Ginger Stout,

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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
27 – Galloway	27-1	5.0	See Section 5.0, Alternatives, for alternatives considered.
	27-2	4.12	Please see Section 4.12 Public Safety for further analysis.
	27-3	4.10	See Topical Response 2.3.2 Zoning, presented above.
	27-4	4.1.6.5	Refer to Section 4.1.5.5 for analysis of project impacts to lighting. The projects will comply with the Los Angeles County Rural Outdoor Lighting District ordinance.
	27-5	4.12	Please see Section 4.12 Public Safety for further analysis.
	27-6	4.4	Section 4.4, Biological Resources, discusses impacts to ecological resources.

Comment Letter 28 – Ginger Stout

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S-T-O-U-T.

And just in reference to the gentleman and others, we have a concern that in the report when it's being written up, they've consistently called it disturbed land. It's all negative, and yet in the view of the people who live out there, this is -- this is second growth desert. 28-1

It's regenerating slowly, the animals moving back in, and all of us who live out there see the beauty of that, but the county seems to completely miss, and we'd like that term changed, "second growth forest" seems to be a positive, we'd like it to be called "second growth desert" because that's exactly what it is after it's been there.

All right. The next one is the cumulative effects which are required in the -- by "Siqua." The Draft EIR is just very dismissive, cumulative effects as if there just aren't any, and we show -- there's no map that shows the amount of land that's going to be turned black by these acres of the proposed projects, 29 in the Draft EIR, and instead their map just shows little dots where they're going to be. 28-2

I want a map put in there that shows the exact amount of space that's going to be lost literally on a map so that people can look at it and see, "Oh, this is

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what -- this is what's going to be gone." A little dot doesn't get it. 28-2 cont.

All right. The next one are photos of how -- of what the area that's looks like now, and simulated photos of what it's going to look like when the projects are completed are completely misleading.

First of all, they don't even show the homes that are located right next to the projects. They make it look like nobody's out there, and when you put the simulated photos in, it makes it look like you can't see that from anywhere. 28-3

We would like photos taken from the houses of the people who live right next to it, not only on that -- plus photos of an actual completed -- of which there's several in the Antelope Valley -- solar fields standing right next to it so that you can put the two together so that you can see what the real effects are going to be on that to these projects.

Okay. So we'd like the view from the -- the view from the -- is discussed from Quartz Hill and from little views. They're no mention of the view taken from the people who live in the hills. When the people who drive over the hills, what this is going to look like, and how much -- what the view is like now, and how much it's going to disturb the view from the

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mountains, much less the view of the people who live right next to it, and what it's going to be when they have to look over everything or look through trees on this, if any ever really get built on this. 28-3 cont.

Also the trails that we worked so hard to put in, assuming that some day this would be farms or two and a half acres and built out, you know, and in a rural way, but to put the little views trail and the bike trail on G and F and poppy trail, and it's just simple, it's there, and we can maybe put whatever the county says, if it says anything, no mention of what that's going to be. What the requirements are going to be. 28-4

We'd like to see if something goes in with the idea that some day so the people could rid their horses and hike and whatever, to -- those trails to actually be built out -- okay -- worked with the county very hard to get those trails in.

Antelope Acres first of all, in the Draft EIR is always mentioned as being one to two to three or whatever miles from the site when, in fact, at least three of the projects have their signs announcing the project right across the street from a sign that says "Welcome to Antelope Acres."

These projects are all in Antelope Acres, not 28-5

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one to two to three miles from the Antelope Acres and will, in fact, change the character of the area. 28-5 cont.

The dust monitors that people talk about and find this are in downtown Lancaster, and so that's when they find out, "Oh, the dust is blowing." You know, people don't call in.

{We want dust monitors required}-- if they exist, it's expensive, but they can afford it, we want them to put in on site so that when the dust blows, the wind gets up there, whatever, you're monitoring it, they catch it right then and there, and you have to wait for people to call in, and it will happen. 28-6

Also the runoff. Especially on the Avenue K site and some of the others, only takes into the account the historic runoff in the area. Will the project -- the -- the projects will have nothing but the equivalent of thousands of rooftops, and the runoff of a rooftop is not like the runoff off the mountains. 28-7

It accumulates differently, it runs off differently. There's utterly no discussion of the change in the runoff pattern due to the -- to the solid rooftop-like panels that will cover the area, which will change the way it runs off on that. It's just -- on that.

Okay. Valley fever, of course, has been 28-8

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well-mentioned, it's well-documented in the Draft EIR, but it's ignored as if there's nothing you can do about it. We all just live with it, which is, of course, unacceptable. 28-8 cont.

The cadmium that's going to be in the panels says it will be mitigated because we'll put glass over it, but nothing has said, well, where were the cadmium when the -- the panel deteriorates, the cadmium's going to go some place. They just stick it underneath the glass panels? What's going to happen with that? That's not discussed at all and needs to be addressed. 28-9

There was no consultation with any local historical group concerning the Del Sur Cemetery. Just that they went and found it, and everybody kind of knew it was there, but they hadn't done a lot of work done and just sort of out there, kind of, protected just by isolation? Now it won't be isolated anymore.

The idea of just going around and if they find it, when it -- perhaps the people who live out there would actually like to see it and historical preservation done there. We feel that if they're going to put it on that site, they need to actually work with the historical society, construct some kind of actual cemetery that honors the passed, and does something instead of just ignoring it. 28-10

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The -- let's see. What else have I got here. I guess also then another follow-up and another request that was made, the hearing I think it's February 12th for the other project that's out on Avenue -- 110 near K, if -- we would like also that to be held up here because the people are going to be affected again, and it's very difficult for people to take the time off to drive all the way from LA.

You know what it's like to have drive up here, drive down, and we appreciate the fact that you come up here to listen to us so that you can actually hear what people say instead of just the grumbling that goes on that, you know, the county is responsible to the people. We appreciate that, and like for you to know that you're appreciated, that you do that and hope that you'll do that again.

This is supposed to be an agricultural opportunity area, but because they keep calling it, "Oh, there's nothing there, and it's just disturbed land, and there's no water, and you can't" -- that's not true.

And with this -- the county people bought their homes because the county told them in their general plan that this was an agricultural opportunity area, it's zoned for that, and you can buy your home 28-11

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1 out here and know that you're going to be in a quiet
2 agricultural area.} When you leave Lancaster, you know 28-11 cont.
3 you're in a different -- you're in a different area.
4 And some of the people have been working with
5 the -- the Wine Association, the California Vineyards
6 Association to talk about putting advertisements in to
7 bring people in, to put in -- to establish vineyards.
8 We already have a couple that are in the area,
9 and they're up there, and we have pistachios, there is
10 horse facilities, there's all kinds of things that, you
11 know, put in advertisements and horse things, and all
12 of a sudden you need to get that going, the solar
13 companies are making that for people to say, "Oh, I
14 guess -- I guess were not going to come there. I guess
15 that's not going to happen."
16 So you've taken the most beautiful part of LA
17 County where you can really have something that put you
18 on the map of beauty, and you're just saying, "Well,
19 the state says they want these. So I guess we can't do
20 anything about it," and, in fact,{the best scenario is
21 in the -- of the -- of the options says, "Well, they
22 should build it somewhere else." 28-12
23 That was -- that was the most significant and
24 best option of the six options but the idea was, "Well,
25 they already have it. They've done it. They say they

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have to build here." No, they don't. There's hundreds of places they can go and make their money, but they do not have to come here regardless of the power lines -- on that. 28-12 cont.

And so, again, like to thank you for your time and for coming up here.

MR. DEA: Jason Zink. Mitch Klein.

MR. ZINK: Jason Zink, Z-I-N-K.

Before I start off, I'd like just to say I appreciate you guys coming here. I know a lot of people think you're outsiders because you come from down below and not up here, but it's kind of our fault because we could form a Antelope Valley Community Service District and have our own planning board up here for all of the Antelope Valley, but we had to have Steve Knight legislation to do that.

So just for that you guys here -- we have to -- we want take care of our future. We have to be in charge of it.

You know, like Paul Harvey said -- the old-timers if you listened to that, I used to with my grandma and grandpa -- "The rest of the story."

When my dad lived here in little Rock and homesteaded in 1900, which is east of Palmdale, my dad said he could see 11 lights in all of Antelope Valley

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
28 – Stout	28-1	4.10	See Topical Response 2.3.2 Zoning, presented above.
	28-2	4.0	The comment is noted and will be incorporated into the project record. Cumulative impacts are addressed in each of the areas of concern within Section 4.0, Environmental Information.
	28-3	4.1	See Topical Response 2.3.7 Visual Simulations/Aesthetics, presented above.
	28-4	4.1, 4.10, B-14	Section 4.1, Aesthetics, addresses the trails associated with County adopted trails in section 4.1.6.2. Section 4.10, Land Use and Planning, also addresses the County adopted trails. Projects 1 and 2 that have County adopted trails adjacent to their project sites have the designated area and requirements defined by the Department of Parks and Recreation set-a-side to have an easement dedicated for the specified use. Appendix B-14, Site Plans, has the setbacks built into the drawings for the Projects 1 – 6.
	28-5		The comment is noted and will be incorporated into the project record.
	28-6	4.3	See Topical Response 2.3.6 Dust Control, presented above.
	28-7	4.9, B-7	Section 4.9, Hydrology and Water Quality, addresses the concerns of runoff. The Projects 1 – 6 have gone through review by LACDPW to prove that the post-construction impacts will be less than significant with mitigation measures. The Projects 1 – 6 have been designed to account for additional runoff that the site would create. Appendix B-7 contains the approved studies in full.
	28-8		See Topical Response 2.3.7 Valley fever/Dust, presented above.
	28-9	4.8.2.6	See Topical Response 2.3.8 Cadmium Telluride Containing Photovoltaic Panels, presented above.
	28-10	4.5	In addition to conducting a cultural resources investigation, the Applicant consulted the Antelope Valley Historic Society, the Lancaster Cemetery District, and local residents regarding the Del Sur Cemetery. The Lancaster Cemetery District and the Applicant have come to an agreement for the preservation of the Del Sur Cemetery. Refer to Section 4.5, Cultural and Paleontological Resources, addresses the Del Sur Cemetery. Mitigation measure CUL–4 provides for the preservation of the Del Sur Cemetery.
	28-11		The comment is noted and will be incorporated into the project record.
	28-12	5.0	See Section 5.0, Alternatives, for alternatives considered.

Comment Letter 29 – Jason Zink

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have to build here." No, they don't. There's hundreds of places they can go and make their money, but they do not have to come here regardless of the power lines -- on that. 28-12 cont.

And so, again, like to thank you for your time and for coming up here.

MR. DEA: Jason Zink. Mitch Klein.

MR. ZINK: Jason Zink, Z-I-N-K.

Before I start off, I'd like just to say I appreciate you guys coming here. I know a lot of people think you're outsiders because you come from down below and not up here, but it's kind of our fault because we could form a Antelope Valley Community Service District and have our own planning board up here for all of the Antelope Valley, but we had to have Steve Knight legislation to do that.

So just for that you guys here -- we have to -- we want take care of our future. We have to be in charge of it.

You know, like Paul Harvey said -- the old-timers if you listened to that, I used to with my grandma and grandpa -- "The rest of the story."

When my dad lived here in little Rock and homesteaded in 1900, which is east of Palmdale, my dad said he could see 11 lights in all of Antelope Valley

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in Lancaster and Palmdale. So that just tells you -- that tells you a lot of old-timers would probably rather have 20,000 acres worth of solar panels than 450,000 people from LA living up here. So that's just, kind of, my point of view.

And as far as the dust storms, I guess we could blame farmers in the 30's and 40's for taking all the Juniper trees and Joshua trees down. So we can't just blame it all on solar panels. It's ridiculous.

I'm very supportive of this project and other solar projects. I know a lot of people that were -- have been down and out and got a job, that they hired local people, and this is the first Christmas that they've had and they've been able to actually get ahead. They were really a lot families -- construction families out here, and these solar people saved their family's livelihoods.

As far as property taxes and people, you know, always said, "Oh, that land's vacant, and it's beautiful, it's Yellowstone," and everything like that. Somebody's been paying property taxes on that, and they use that as an investment and hopefully to retire on.

A lot of people bought it because the international airport in Palmdale was supposed to go in, but we all know that was a joke, and so hopefully

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the solar companies will buy their land, and they'll be able to retire.

As far as -- you know, they talked about dust. Well, my dad used to drop me off on 150 acres of plowed ground from watermelons because we were farmers and say, "Here's a 'hula hoop,' Jason, go home and go pull some weeds." And so these people don't even know what dust storms are.

(Audience speaks)

MR. ZINK: Please give respect. I have before.

We used to grow last chance peaches out there on the west side, 200th Street Avenue D, and we used to haul all these peaches all the way to Little Rock. So we -- there used to be a lot of truck hauling because the packing sheds were in Little Rock. So we used to do that.

Rancho Vista. Beautiful -- some of the most beautiful land in the Antelope Valley. The Rancho Vista housing tract is today, west Palmdale. Beautiful land, but it's a housing tract. I would have loved to have seen it just stay the way it was because it was pristine, the most beautiful property, one of the most beautiful properties in our valley, but population came out here.

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As far as mitigation measures, I would like to see on the main streets like 138 Avenue D, 70th Street 90th, I, and J a white fence farm -- white fence fencing put in so it looks like a farm, like, you know, like, we would do for any other project.

And if there's buildings, make them look like barns, and if there's towers, make them look like little wind -- water towers so there's some esthetic and not just -- and it does look industrial, and if your house is right across the street from one of these solar farms, then there should be white fence -- white fences and trees planted so you don't have to wake up in the morning and look at an industrial looking thing. It looks like a farm. 29-1

And as far as wells, there's plenty of water in the Antelope Valley because no one's farming anymore. So all of that water that was being taken out, syphoned, is now sitting there. There is so much water.

I'm so tired of people saying, "There's no water." There's so much water we'll all be six feet under and your grandchildren be six feet under. There's plenty of water.

There's holes in the aqueduct that's actually syphoning underneath into the groundwater. So there's

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actually probably more water here than there was in 1950 in the ground, and I bet you if you check the historical records, you would find that to be true.

And as far as valley fever, people's had valley fever here. Larry Stataglia, a farmer from Little Rock, he died of it. That was back in 1985. So people have been dieing from that for a long time.

And I'm happy that these companies are coming here, that they're American companies, and they are putting people to work, and they are paying them good wages that they can actually raise a family on, and we don't need no subsidies from the government.

So it's very important and thank you for your time.

MR. MCCARTHY: Thank you.

We're going to have one more witness, and we're going to take a break.

MR. KELIN: Okay. My name is -- my name is Mitch Klein, K-L-E-I-N. I'm a business representative for the International Brotherhood of Electrical Workers. I've resided here for over 30 years.

I represent hundreds of people in the area, people that reside here, pay taxes here, are citizens here, their kids go to school here, and what they want is to work here.

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
29 – Zink	29-1	4.1.7	The comment is noted and will be incorporated into the project record. 4.1.7, Mitigation Measures, describes the proposed mitigation measures for aesthetics. See also Topical Response 2.3.1 Visual Simulations/Aesthetics.

Comment Letter 30 – Mitch Klein

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actually probably more water here than there was in 1950 in the ground, and I bet you if you check the historical records, you would find that to be true.

And as far as valley fever, people's had valley fever here. Larry Stataglia, a farmer from Little Rock, he died of it. That was back in 1985. So people have been dieing from that for a long time.

And I'm happy that these companies are coming here, that they're American companies, and they are putting people to work, and they are paying them good wages that they can actually raise a family on, and we don't need no subsidies from the government.

So it's very important and thank you for your time.

MR. MCCARTHY: Thank you.

We're going to have one more witness, and we're going to take a break.

MR. KELIN: Okay. My name is -- my name is Mitch Klein, K-L-E-I-N. I'm a business representative for the International Brotherhood of Electrical Workers. I've resided here for over 30 years.

I represent hundreds of people in the area, people that reside here, pay taxes here, are citizens here, their kids go to school here, and what they want is to work here.

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Since the downturn in the economy, so many people have lost their homes, their cars being repossessed, they've been going through divorces, families being broken up. {The jobs here that Silverado will create are so badly needed. The families here are just trying to survive.

Silverado will provide many local jobs in the area. People that live here can work here. Our veterans that are now coming home that need jobs so bad can be hired here and work here, can be put in the trades and learn a good trade and be able to make a decent living. 30-1

Let's not forgot get about the people that live here, reside here, that want to work here, or veterans that are coming home that need jobs here, yes, I am for this project.}

MR. MCCARTHY: Thank you.

Very well. We'll -- it's 3:00 o'clock, and we'll come back into session at 3:05.

(Whereupon, a recess was held)

MR. MCCARTHY: Okay. We're back in session. We have four more speakers. If we could take our seats, we have four more speakers.

MR. DEA: We have Matthew Thomas and John Dewar.

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
30 – Klein	30-1		The comment is noted and will be incorporated into the project record.

Comment Letter 31 – Matthew Thomas

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MR. MCCARTHY: You can go ahead.

MR. THOMAS: My name is Matthew Thomas, T-H-O-M-A-S. Can you hear me now?

MR. MCCARTHY: Yeah.

MR. THOMAS: Test. Test. Test. My name is Matthew Thomas, T-H-O-M-A-S.

I represent -- I personally -- I grew up here in the valley myself. 60-some-odd years old. A nice passionate crowd we have here today. I also represent the Stevens family who we are in support of solar farms.

Our family's great grandparents -- excuse me -- settled back here in the 20's. We're farmers, ranchers. We've bought some undeveloped land, in fact, of off 90th Street West and Avenue J. I'm losing my voice already because it is -- it is a, kind of, an emotional thing for all of us.

So with that said, the family cleared the land. They built an adobe house -- excuse me -- they ran a pretty successful alfalfa ranch for 60-some-odd years there. The adobe house is still there. The property in the last 15 years planted every now and then with carrots and onions from time to time.

But, you know, over the past eight decades our family still owns the property. We pay tens and tens

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of thousands of dollars in taxes. The only thing growing on the property right now are tumbleweeds.

Each year the county assesses an additional weed abatement tax for the removal of tumbleweeds, and ironically it -- it mows down the natural growth that they talked about reoccurring.

Near the property has two water wells that have serviced the ranch and agricultural fields. The county does not provide any water, gas, sewer, or any services out there. The house is on a septic system. Our county maintains roads, but truly the only services provide the rest of California Edison to the ranch.

So today I ask the county and the public to recognize our rights to use our property in the manner that -- that we feel is the best land use and the best economic benefit to our family, while ironically it's adhering the actual zoning that the property was zoned way back in the 20's or 30's or 40's, whenever it came up with that first -- first plan, and then the future zoning requirements. 31-1

The proposed solar farms are the best use of the property we feel. It'll actually save on the drought on the water. Alfalfa farming is the most heavy intrusive use of water there is, and that's what the property was for -- bought for.

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Also actually the way Silverado has talked about it, it will help mitigate the tumbleweeds, and we have to pay to have the tumbleweeds removed from our property. It's ridiculous.

It's a renewable energy to the State of California. We -- we all know about the issue of, you know, global warming and all this, which is causing part of the drought in the valley, and this is a desert, called the Mojave desert.

But, you know, it's perhaps affecting it, but at least we'll have a benefit of two things -- three things because our family -- it might help us financially, but the two positive things are renewable energy, and we won't be impacting our water.

We used to have two quarter acre reservoirs that supplied water to water the fields there. We swam in it. It was great -- it was a great life, but, you know, we've have -- we have had no assistance from the county or the city of Lancaster in anything out there. We're on our own, and we've been on our own since the 20's.

So, again, I realize it's a really emotional thing. As you can tell, I'm emotional about it, but, you know, it's our property. It's zoned for that, and I'd like to have our rights, you know, respected too.

PUBLIC HEARING, FEBRUARY 1, 2014

Thank you.

MR. MCCARTHY: Sir, go ahead and give us your last name phonetically.

MR. DEWAR: Okay. My name is John Dewar, D-E-W-A-R.

I am a close to 20 year electrician. I've worked on the AVSR one and alpine projects since December of '11. Oh, and by the way, I am a local hire. I have lived in the Antelope Valley since the mid 80's and very happy to be working close to home making a good living wage.

As a foreman on the alpine site, I was the -- we'll call -- was called the yard foreman. Everybody who came in, everybody who touched anything, any material, I was in charge with.

I dealt a lot with water trucks, and as far as the amount of water, that they're talking about is reclaimed water, which is second-use water, putting it right back in the ground.

Now, this water as I talked to people who treat the water is better treated than most -- well, not most but a lot of water in the United States used for drinking. It's very clean.

Somebody had brought up the smell of it. We usually consider it to be a refreshing -- it cools

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
31 – Thomas	31-1		The comment is noted and will be incorporated into the project record.

Comment Letter 32 – John Dewar

PUBLIC HEARING, FEBRUARY 1, 2014

Thank you.

MR. MCCARTHY: Sir, go ahead and give us your last name phonetically.

MR. DEWAR: Okay. My name is John Dewar, D-E-W-A-R.

I am a close to 20 year electrician. I've worked on the AVSR one and alpine projects since December of '11. Oh, and by the way, I am a local hire. I have lived in the Antelope Valley since the mid 80's and very happy to be working close to home making a good living wage.

As a foreman on the alpine site, I was the -- we'll call -- was called the yard foreman. Everybody who came in, everybody who touched anything, any material, I was in charge with.

I dealt a lot with water trucks, and as far as the amount of water, that they're talking about is reclaimed water, which is second-use water, putting it right back in the ground.

Now, this water as I talked to people who treat the water is better treated than most -- well, not most but a lot of water in the United States used for drinking. It's very clean.

Somebody had brought up the smell of it. We usually consider it to be a refreshing -- it cools

PUBLIC HEARING, FEBRUARY 1, 2014

everything down when the water trucks come by. There is no smell from it, and it would be better than that of a leach field, which most of the houses having septic systems have out there. It leaches it back into the ground, and it's -- that's just Sewage.

As far as the radiation, most of these panels are producing DC. They do not create a radiation of electricity. The -- there is -- the AC is handled underground, and it goes to substations. Very little of it is exposed to the air.

Oh, and by the way, I work in the middle of these solar fields. My cell phone always works, and the only time it didn't work is when the cell towers themselves were down.

As far as dust, as I say, I've worked on alpine, which is the project that is the furthest west, and the wind coming from the west I saw it coming off the desert to the west of us. It would come up from there, huge clouds of dust, not from the project.

We have several water trucks going through. Each contractor has to provide a water truck.

As far as valley fever, well, all I can tell you is that I worked with close to a thousand different people on these projects. Not all of them electricians. Some of them pounding in posts and

PUBLIC HEARING, FEBRUARY 1, 2014

things. There is not really reported -- I haven't heard of a reported case of valley fever out of any of them. I've been working there since the beginning for two years.

And finally as far as habitat, well, I don't see the snakes right from the project because in my yard we found three different Mojave Greens, two Red Racers, and there was one other snake.

One of my -- my staff was sitting on a chair on top of a Mojave Green. They were taken, moved to a safe place away from the housing. While I was there, I've seen a fox, hawks, and rabbits.

And over my years in the industry, safety and environment has been a very important thing that has been -- we've been educated in. I have been to five different classes on these projects. I'm almost an expert on the burrowing owl. We hear about them constantly.

{So I am in favor of these projects,}and I see that the environment impact being very small. Thank you very much. 32-1

MR. MCCARTHY: Thank you.

MR. DEA: Okay. Two more speakers for today. David Gomez. Marshal Chance.

MR. MCCARTHY: Mr. Gomez.

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
32 – Dewar	32-1		The comment is noted and will be incorporated into the project record.

Comment Letter 33 – David Gomez

PUBLIC HEARING, FEBRUARY 1, 2014

MR. GOMEZ: Good afternoon. My name is Dave Gomez, G-O-M-E-Z. I'm an executive director for IBW, electrician's union, and the National Electrical Contractors Association. I represent the contractors also.

Unemployment's been up here as high as over 17 percent. We're looking for green jobs. We need them now. One of the things is we have a five-year apprenticeship. These are not just jobs. These are careers.

We've brought in over 400 apprentices in LA County, 20 percent from Antelope Valley. We're also looking for veterans that are coming. We're doing outreach to bring veterans, and{these projects I'm in favor of will create jobs for the future.} 33-1

Thank you.

MR. MCCARTHY: Thank you.

Sir.

MR. CHANCE: My name is Marshal Chance. Last name, C-H-A-N-C-E.

I haven't been here in the Antelope Valley for as long as some people, but I have been here pretty similar. I've owned two homes. One right here in town. I now live in the agricultural community, and I've had dust in my house since I've been here. You

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301 N. Lake Avenue, Suite 150, Pasadena, CA 91101 1-800-586-2988

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
33 – Gomez	33-1		The comment is noted and will be incorporated into the project record.

Comment Letter 34 – Marshall Chance

PUBLIC HEARING, FEBRUARY 1, 2014

know, it's -- it's nothing new. You can't really blame it on solar.

Although I am employed by a solar company, I don't have any affiliation with Silverado. I hope everything works as well with them as it has for the site I'm on.

But I have seen the water trucks. They -- they do the best job they can in keeping the dust out. If it becomes too windy -- we are sent off-site, and the only people that are allowed on site are the water trucks.

I work with present 165 electricians like myself all from LA county. 34 percent of those are all from the Antelope Valley. I am local hire. I've been able to keep my house when everybody was losing theirs, and fortunately the last two years plus I've been working right here at home in the Antelope Valley due to these solar sites, and I am in favor of them.

I've seen in my time coyotes, kit foxes, bobcat, snakes. They stay on the site. We have to watch out for them at all times. I have seen all kinds of wildlife.

And like these people are saying, the desert is beautiful. I enjoy it myself. Like I said, I live in the agricultural community. I like watching stars

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PUBLIC HEARING, FEBRUARY 1, 2014

at night. {I really don't see too much negative impact, but it has helped me take care of my family,} which consists of four kids and nine grandchildren, who all live right here in town. 34-1

Thank you.

MR. MCCARTHY: Thank you.

MR. DEA: That was the last speaker.

MR. MCCARTHY: Very well. We've completed then the testimony from everyone who signed up. Did anyone sign up whose name was not called? Okay. Seeing no one.

The -- again, for those who might have come in late, all of the testimony that was given here today will be put together into what we call "response to comments." So if you want to see how that was handled, that's the section of the final EIR response to comments, and the -- the comments will be responded to within the final EIR, and that would be prepared before the public hearing and distributed to the Planning Commission, and, of course, be made available on the department's website and be out there in the local library, et cetera.

So if you have any questions about the schedule, you could contact Mr. Dea. What's the phone number, Sam?

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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
34 – Chance	34-1		The comment is noted and will be incorporated into the project record.

Comment Letter 35 – Judith Fuentes

K. Szalay

RECEIVED
FEB 12 2014

February 7, 2014

Los Angeles County
Department of Regional Planning
Attention: Ms. Carolina Blengini or Mr. Szalay
Special Projects Section, Room 1362
320 West Temple Street
Los Angeles, CA 90012

Re: Silverado Power West
Draft EIR
Projects No. R2011-00833, 00798, 00799, 00807, 00801, and 00805
Conditional Use Permits and Zone Changes

I am very much in favor of solar energy systems on buildings, homes and over parking spaces. I am opposed to massive solar generating facilities covering and claiming thousands of scenic acres of desert, open land, and old farmlands that will be surrounded by chain-link fence and barbed-wire.

My concern is the Projects will create an adverse significant change of preserving the character of rural communities. 35-1

I question the finding in the DEIR that the Projects will have no Cumulative Impacts on the environment.

Section 15355 of CEQA Guidelines defines the term Cumulative Impacts as (a) The individual effects may be changes resulting from a single project or a number of separate projects. (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative Impacts can result from individually minor but collectively significant projects taking place over a period of time.

My fear is that more large-scale solar generating facilities that are approved will result in even more of these kinds of developments.

A recent article in the Antelope Valley Press dated January 30, 2014, in reference to a solar project in Kern County reported that the [Kern County] project will be constructed on 324 acres at 170th Street West and Avenue A, in an area with several other solar projects. As such, it is considered **"infill"** by county planners, Jacqui Kitchen, supervising planner, said during the commission hearing on January 23.

This particular 40-megawatt project abuts with other solar projects on the Kern and Los Angeles County border. Half of the solar projects are in Kern County, half are in LA County. 35-2

The same thing is happening with industrial solar projects on Lancaster's city limits that abut solar projects proposed or on unincorporated land. Half are in Lancaster, half are in the Los Angeles County unincorporated area.

When similar developments or projects have this association with each other, why isn't this addressed as having significant environmental impacts based on a summary of projections? 35-2 cont.

The City of Lancaster has consistently ignored the unincorporated rural community residents' requests for Environmental Impact Reports prepared for solar projects bordering our community and our homes. Los Angeles County has no jurisdiction as to Lancaster's land use decisions and the county is unable to or unwilling to aid or act in behalf of the people it represents. As a result, unincorporated rural community residents are forced to exist with the consequences of decisions made by others who do not live here.

The reason that the Projects sites are in the west Antelope Valley because of large open spaces and transmission lines already in place is irrelevant. Homes and buildings are already in place and that is where solar, renewable energy systems should be - where the electrical energy is used.

As Alternative 4 states, it is well understood that the applicant does not install residential solar systems or systems for buildings or rooftops. However, this alternative would be the most superior alternative for a government mandated renewable energy resource. 35-3

A solar energy system on 6,880 homes could create more fulfilling, full-time, life-time jobs. It could also encourage energy conservation.

Massive solar generating facilities provide employment for two to three years. When the Projects are finished, only a handful of people will be employed. All others (from the local workforce) will be looking for the next massive solar generating facility to fabricate. What is the benefit from this? 35-4

All water for the Projects should be purchased outside the Antelope Valley. Groundwater should not be used or allocated for anything other than staying in the ground for the lifetime of the Projects. The Projects should not be allowed to profit at the expense and economic hardship of other property owners. 35-5

Sincerely,
Judith Fuentes
47458 92nd Street West
Antelope Acres, California 93536

2

February 7, 2014

Los Angeles County
Department of Regional Planning
Attention: Ms. Carolina Blengini or Mr. Szalay
Special Projects Section, Room 1362
320 West Temple Street
Los Angeles, CA 90012

Re: Silverado Power West (Projects)
Draft EIR
Projects No. R2011-00833, 00798, 00799, 00807, 00801, and 00805
Conditional Use Permits and Zone Changes

I am very much in favor of solar energy systems on buildings, homes and over parking spaces. I am opposed to massive solar generating facilities covering and claiming thousands of scenic acres of desert, open land, and old farmlands that will be surrounded by chain-link fence and barbed-wire.

I am concerned with the Projects use of groundwater and the pumping of wells on Project properties for construction and operation.

The on-going water adjudication in the Antelope Valley in all probability is going to require groundwater users to reduce their current pumping by 20 to 30 percent. Allowing new commercial/industrial uses of groundwater (in any amount) is counter productive to the adjudication's purpose. The adjudication is intended to reduce groundwater pumping and thereby end the overdraft. It is extremely unfair to ask current groundwater pumpers to reduce their water usage to allow for new industrial/commercial uses. 35-6

Therefore: 1) Pumping groundwater by new commercial/industrial users should not be considered a viable water supply option, and
2) The only water supply options that should be considered viable are those options that require one hundred percent of the Projects' water to be imported from outside the Antelope Valley.

In addition, if the Projects acquire a groundwater pumping right, that water right should be required to be used on the Projects site only and not transferable to any other person, project, or entity.

Sincerely,

Judith Fuentes
47458 92nd Street West
Antelope Acres, California 93536

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
35 – Fuentes	35-1	4.10	See Topical Response 2.3.2 Zoning, presented above.
	35-2	2.1, 2.4, 4.1 thru 4.13	Section 2.1 of the EIR addresses the purpose of the California Environmental Quality Act and the EIR, and Section 2.4 of the EIR addresses the scope of analysis that is included in the EIR per CEQA guidelines. The EIR addresses cumulative impacts in each subsection of Section 4.0, as required under CEQA, using the list of cumulative projects developed in coordination with the County. The list of cumulative projects evaluated for this Project includes solar, wind, residential, and commercial development in LA County and the City of Lancaster.
	35-3	5.5	As stated in Section 5.5 of the EIR, the Applicant does not have the ability to implement a large-scale rooftop solar program or to install solar panels on private rooftops; therefore, this alternative is not a feasible alternative for the proposed Projects.
	35-4	2.1, 2.4, 4.1 thru 4.13	The scope of this EIR does not include an analysis of unknown future development of solar generating facilities or the effect of such projects would have on future job opportunities. CEQA requires the evaluation of past, present, and reasonably foreseeable projects. See Response to comment 35-2.
	35-5	4.14	See Topical Response 2.3.5 Water Supply, presented above.
	35-6	4.14	See Topical Response 2.3.5 Water Supply, presented above.

Comment Letter 36 – Margaret Rhyne

From: Margaret Rhyne [mailto:m.rhyne@verizon.net]
Sent: Monday, February 17, 2014 12:06 PM
To: Samuel Dea
Subject: Fwd: Silverado DEIR

I just sent this to the planner (C. Blengini) that I thought was assigned to this project - email reply indicated that I should now contact you. Please see the following
Thank you, Margaret Rhyne on behalf of Friends of Antelope Valley Open Space.
avopenspace.org

----------Original Message----------

From: Margaret Rhyne
Date: Feb 17, 2014 12:01:39 PM
Subject: Silverado DEIR
To: acurzi@planning.lacounty.gov, cblengini@planning.lacounty.gov, thua@planning.lacounty.gov
Cc: esainz@planning.lacounty.gov, NHickling@lacbos.org, ontishima1775@gmail.com

Regarding the 987 Acre Proposed Silverado Solar Project*
I hope you can answer the following questions for me regarding this project, comments for which are due on Wednesday of this week:
1. Has the CDFW commented yet? Is that comment letter available? 36-1
2. In the Silverado DEIR I see different ratios suggested for mitigation (page 1-15 - "based on the quality of the mitigation land relative to the impacted land") but I cannot find a statement in the DEIR that estimates how many acres will be impacted. Can you direct me to that information? 36-2
3. Parcel 2 of the 6 appears to be directly adjacent on its southern border to the onsite mitigation land just approved for West Antelope Solar as 2:1 mitigation for Swainson's hawk. Is this conclusion correct? 36-3

***Full Case Title:** Project No. R2011-00833-(5) / Conditional Use Permit 201100079 / Zone Change 201100005 / North Lancaster Ranch, Project No. R2011-00798-(5) / Conditional Use Permit 201100070 / Western Antelope Valley Blue Sky Ranch, Project No. R2011-00799-(5) / Conditional Use Permit 201100071 / American Solar Greenworks, Project No. R2011-00807-(5) / Conditional Use Permit 201100076 / Antelope Solar Greenworks, Project No. R2011-00801-(5) / Conditional Use Permit 201100072 / Silver Sun Greenworks, Project No. R2011-00805 / Conditional Use Permit 201100074 / Lancaster WAD / Environmental Review No. 201100109 / Silverado Power West, Los Angeles County

<table>
<tr><th>Comment Letter Number</th><th>Comment Number</th><th>Section Number in EIR</th><th>Response to Comment</th></tr>
<tr><td rowspan="3">36 – Rhyne</td><td>36-1</td><td></td><td>The Los Angeles County Department of Regional Planning has not received a comment letter on the DEIR from the CDFW at the time that this document was released. However, CDFW has been consulted throughout the DEIR process, and their comments have been incorporated into the EIR. All comments on the DEIR have been made available on the project website. The CDFW provided comments during the consultation process for a Notice of Preparation (“NOP”) of a DEIR prior to preparation of the DEIR. County Staff provided a copy of the CDFW NOP letter to the commenter by email on February 20, 2014 in response to a public information request by the commenter.</td></tr>
<tr><td>36-2</td><td>3.0</td><td>Tables 3-2 and 3-5 in Section 3.0 of the EIR provides the total acreage of land needed for each proposed project and the estimated areas of disturbance associated with each of the proposed Projects. The table provided below provides a summary of the total developed acreage associated with the proposed Projects.
<table>
<tr><th>Project #</th><th>Landscape</th><th>Undeveloped</th><th>Total Project Size</th><th>Total Developed Acreage</th></tr>
<tr><td>1</td><td>1.2</td><td></td><td>240</td><td>238.8</td></tr>
<tr><td>2</td><td>0.51</td><td>39</td><td>157</td><td>117.49</td></tr>
<tr><td>3</td><td>1.47</td><td></td><td>135.61</td><td>134.14</td></tr>
<tr><td>4</td><td>1.94</td><td></td><td>256</td><td>254.06</td></tr>
<tr><td>5</td><td>0.59</td><td></td><td>160</td><td>159.41</td></tr>
<tr><td>6</td><td>0.31</td><td></td><td>38.49</td><td>38.18</td></tr>
</table>
The total developed acreage per project would be the baseline to utilize in the mitigation lands that would be provided for the specified foraging habitat of the Swainson’s hawk, burrowing owl, special-status migratory and wintering birds. The alkali mariposa lily has not been identified on Projects 1 – 6 but a preconstruction survey would be done prior to the start of construction. If alkali mariposa lilies are found on a project site and cannot be avoided the acreage baseline would be established in the pre-construction survey in consultation with LACDRP and CDFW. In the case that alkali mariposa lily could not be avoided it would be mitigated for at a ratio of 1:1 of area disturbed to area provided in mitigation. Please see section 4.4.8.1, Biological Mitigation Measures Affecting All Six Solar Projects, B-2 and B-4.</td></tr>
<tr><td>36-3</td><td>4.4</td><td>Project 2 is located adjacent, and to the south of the West Antelope Solar Project.</td></tr>
</table>

Comment Letter 37 – Shahin Nourishad

From: Nourishad, Shahin [mailto:Shahin.Nourishad@fire.lacounty.gov]
Sent: Tuesday, February 18, 2014 2:38 PM
To: Kim Szalay
Subject: RE: Silverado Power soil samples clearance letter

Good Afternoon Kim,

I have completed my review of the five (5) soil sampling reports for the Silverado Power properties in Lancaster, CA. These properties were used for agricultural purposes from 1940s to late 1960s. To identify potential pesticides contamination at these properties, a limited number of soil samples were taken from the each of the five sites and analyzed for organochlorine pesticides and arsenic. No significant concentration of pesticides or arsenic that could pose a threat to public or environment were detected in the onsite soils. This office has no objection to the development of the properties for solar power generation.

It should be noted that per the soil sampling reports, there are a number of water wells at these properties. To protect the groundwater resources and eliminates accidental release of contaminants into the wells, the water wells should be provided with secure well covers. 37-1

Furthermore, the following corrections should be made in the following reports:

Soil Sampling Report for the 256 Acres: (1) Page 2 of the reports states two (2) groundwater wells, the Figure 2 of the same report shows only one (1) well. The two should correspond. 37-2

Soil Sampling Report for 240 Acres: (1) Page 4, the unit for pesticides should be revised to ug/Kg according to the laboratory analytical data.
(2) The California Human Health Screening Levels also should be revised to ug/Kg.
(3) Table 1 -the unit for pesticides should be revised to ug/Kg and the ND for arsenic should be revised to (NA) not analyzed, since only B2 and B7 were analyzed for arsenic. 37-3

If you have any questions please email or call me at 323.890.4106.

Shahin Nourishad

From: Kim Szalay [mailto:kszalay@planning.lacounty.gov]
Sent: Thursday, February 13, 2014 8:05 AM
To: Nourishad, Shahin
Subject: Silverado Power soil samples clearance letter

Good Morning Shahin,

Per our phone conversation today, when you have completed your review of the soil testing results provided to you for the Silverado Power Projects, please forward your clearance letter to me for inclusion in the case file and record. I am the DRP lead planner now. Carolina is no longer with our Department. You mentioned being able to complete it early next week. That will be great.

Thanks,

Kim

Mr. Kim K. Szalay, MPL, AICP
Principal Planner
Special Projects Section
Department of Regional Planning
320 W. Temple Street, Room 1362
Los Angeles, CA 90012
(213) 974-4876 Direct
(213) 626-0434 Fax
kszalay@planning.lacounty.gov

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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
37 – Nourishad	37-1		Existing groundwater wells will be securely covered prior to the start of construction activities, as necessary.
	37-2	Errata	The figure is correct and the text has been corrected. See Errata for Appendices in this FEIR.
	37-3	Errata	The requested revisions have been completed, Refer to Errata.

Comment Letter 38 – Antelope Valley Air Quality Management District

Antelope Valley Air Quality Management District
43301 Division St., Suite 206
Lancaster, CA 93535-4649

661.723.8070
Fax 661.723.3450

Eldon Heaston, Executive Director
In reply, please refer to AV0214/011

February 13, 2014

Carolina Blengini
Los Angeles County
Department of Regional Planning
Special Projects Section, Room 1362
320 West Temple Street
Los Angeles, CA 90012

RE: NOTICE OF COMPLETION AND AVAILABILITY
DRAFT ENVIRONMENTAL IMPACT REPORT
NOTICE OF HEARING EXAMINER PUBLIC HEARING FOR THE
SILVERADO POWER WEST, LOS ANGELES COUNTY PROJECT
STATE CLEARINGHOUSE NO. 2012061068
COUNTY PROJECT NOs. 201100079, 70, 71, 76, 72, 74
ZONE CHANGE NO. 201100005
ENVIRONMENTAL REVIEW NO. 201100109

Ms. Blengini:

The Antelope Valley Air Quality Management District (District) has reviewed the NOTICE OF COMPLETION AND AVAILABILITY DRAFT ENVIRONMENTAL IMPACT REPORT NOTICE OF HEARING EXAMINER PUBLIC HEARING for the **Silverado power West, Los Angeles County Project ("Projects").** The six solar photovoltaic projects range in size from 38.49 acres to 256 acres. The reports demonstrate emission levels at less than significant. The District concurs with reports and emission estimates. However, uncontrolled fugitive dust emissions may result in exceeding levels of significance.

Daily PM10 thresholds may be exceeded in a three hour wind event of 30 miles per hour with 20 acres of unstabilized Disturbed Surface. High Wind Conditions are a regular occurrence in the Antelope Valley. Watering frequency for the projects is estimated at two times per day. When water is used as fugitive dust control, watering is required three times a day and increased to a minimum of four times a day if there is evidence of visible Wind-Driven Fugitive Dust AVAQMD Rule 403-Fugitive Dust (11)(d). In accordance with AVAQMD Rule 403, the submittal of a Dust Control Plan, prior to grading, will be required. The Dust Control Plan shall demonstrate adequate water application equipment to mitigate all disturbed areas. 38-1

The Projects propose replanting a vegetative cover of native grasses within the array areas for mitigation of fugitive dust and erosion processes. Successful fugitive dust control and site 38-2

Clean Cities Antelope Valley

stabilization would result in maintaining vegetation to the highest extent possible. Re-vegetation in desert environments is extremely difficult with 80 percent failure rates seen as typical, even with supplemental irrigation. Project areas which retain vegetative ground cover may achieve stabilization without implementing reseeding efforts. Vegetation retention without mowing should apply to the projects' perimeters. The use of mowing for reducing vegetation in the array area prior to construct supports stabilization and access during construction. 38-2 cont.

Signage must be posted at the Project sites prior to grading activities (Rule 403 Appendix A). Compliance with the provisions of District Rule 403 must be implemented in the grading and construction phases of the projects and all Disturbed Surface Areas must meet definition of stabilized surface upon completion. 38-3

Thank you for the opportunity to review this planning document. If you have any questions regarding this letter, please contact Vickie Rausch at (661) 723-8070 x4.

Sincerely,

Bret Banks
Operations Manager

BB/vr
NOTICE OF COMPLETION AND AVAILBILITY OF DRAFT EIR SILVERADO POWER WEST, LOS ANGELES COUNTY PROJECT ("PROJECTS")

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
38 – AVAQMD	38-1	4.3, 4.14	Section 4.3.7 Air Quality, Mitigation Measures, addresses these concerns of fugitive dust control. Specifically, mitigation measure AQ-2 states that watering will occur at least twice daily and mitigation measure AQ-11 states that earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour. Table 4.14-2, Silverado Power Water Estimates for Projects 1 – 6, includes water necessary to comply with Rule 403 and water more than three to four times per day if needed. The Dust Control Plan approval is required prior to issuance of the grading permit, per the Mitigation and Monitoring Plan (MMRP).
	38-2	3.4.9	The Fugitive Dust Mitigation Plan includes a description of efforts that will be implemented to maintain existing vegetation and a description of re-vegetation activities that will be implemented where vegetation clearing or grading occurs. Section 3.4.9 of the EIR addresses site preparation. The mowing technique would be used for the ungraded array locations to preserve below grade vegetation root systems.
	38-3		The MMRP provided in Section 2.0 of this FIER addresses compliance with District Rule 403 by requiring an approved Dust Control Plan prior to issuance of the grading permit. Signage will be posted at the Project sites prior to initiating grading activities.

Comment Letter 39 – Christina Caro

From: Christina Caro [mailto:christina@lozeaudrury.com]
Sent: Tuesday, February 18, 2014 4:03 PM
To: DRP Special Projects
Subject: Comments on Silverado Power West Draft EIR

Dear Ms. Blengini:

Please confirm the cutoff time to submit written comments on the Silverado Power West Draft EIR tomorrow, February 19, via email? Thank you. 39-1

Christina M. Caro
Associate Attorney
Lozeau | Drury LLP
410 12th Street, Suite 250
Oakland, CA 94607
ph: (510) 836-4200
fax: (510) 836-4205
christina@lozeaudrury.com

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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
39 – Caro	39-1		County staff responded to the commenter's request for information by email on the morning of February 19, 2014.

Comment Letter 40 – Michelle Supple

From: Michelle Supple [mailto:paccgums@qnet.com]
Sent: Tuesday, February 18, 2014 1:55 PM
To: DRP Special Projects
Subject: Comments on DEIR, Project 4 Antelope Solar Greenworks

Los Angeles County
Department of Regional Planning
ATTN: Ms. Carolina Blengini
320 West Temple Street
Los Angeles, CA 90012

My family lives in Antelope Acres. We are very concerned regarding the proposed Silverado solar projects within our area. Specifically:

Project 4 Antelope Solar Greenworks, Project No. R2011-00807; APNs 3218-002-018, 3218-002-023, 3203-002-015, 3203-002-017, 3218-001-002, 3218-001-003, 3218-001-004, 3203-002-011, 3203-002-012, 3203-002-013, 3203-002-014, and 3219-019-011; 256 acres; 52 MW

Collectively these are significant projects that will have serious impacts to the Antelope Acres community. Antelope Acres is not a remote area. It is a rural area with equestrian trails, farm animals, walking trails, poppy fields, beautiful birds, abundant wildlife, and "dirt roads". In addition to the loss of the scenic views, the environment will be greatly disturbed with any one of these projects, let alone the combination of them all. There are numerous other concerns.

If project 4 is completed, our house will be surrounded on three sides by Silverado's solar panels. First of all, the impacts when the farm is being built will be tremendous because they are being allowed to build so close our house. The truck and worker vehicles, dust, noise, trash, etc is just a start. Not only is the completed farm a complete eyesore so close to the house view, but who is going to be responsible when the next dust storm hits? Dust associated with the current barren fields and the existing Swinerton and First Solar farms is already intolerable. The proposed Project 4 will put the Silverado farm on the sides of our house and in front of the Swinerton's farm (so we will have two solar farms in front of our house). We will be inundated with dust. What Silverado office is going to be responsible for responding during the dust storm and following up after? 40-1

The roads in this area are already filled with potholes from trucks, tractors, cement trucks, and heavy machinery driving up and down Avenue I, 90th Street West and Avenue J. There is a maintenance yard on Avenue I around 75th Street West and it is heavily used by all the equipment trucks. On Avenue I between 70th street west and 110th Street West the potholes are so bad it's almost impossible for the average car to drive these roads. If it weren't for the potholes, there wouldn't be any road left there! The current solar projects being worked in this area (Swinerton and First Solar) have damaged the roads. The roads cannot handle any more heavy machinery or hundreds more worker cars from Silverado. Someone needs to take responsibility for the roads if these solar companies continue to progress in this area. The roads need to be completely resurfaced, not just patched. This should be addressed by Silverado. 40-2

Most people living in this area have their own private wells. Silverado was initially going to be drilling new wells and drawing from the existing ground water. We understand that has now been changed and they will be using reclaimed water.{Silverado portrays the water use as minor. The water for dust control alone will be a tremendous amount of usage as experienced by current solar projects. If this changes in the future and they are allowed to build their own wells, then it is imperative that there is mitigation for homeowners.} 40-3 In this tough economy, not a single family can afford to have to dig their wells deeper or truck in water if Silverado is allowed to take local water. {Who will monitor and stop Silverado from using up all the well water?} 40-4 The decision to require Silverado to use reclaimed water is the right decision.

This community is considered a 'dark sky' area. It's amazing to see all the natural stars and sky at night unobstructed from '7-11' type shops, gas stations, or restaurant lighting. Already the electrical generating station on Avenue J is a serious point of distraction to the night view to the south of Antelope Acres. To the north there are a huge amount of red flashing lights from the windmills in that area. All this surrounds the Antelope Acres community.{The Silverado projects being proposed will have cumulative effects because they will be in the heart of the community and will be combined with the other aforementioned light distractions. This needs to be seriously addressed.} 40-5

We have been to several Silverado meetings and it appears that they are glossing over the impacts of these projects. They emphasize the job opportunities. Yes the job opportunities are great, but at what cost to the community? And the jobs are temporary, not long term. They say they are excited to be working in this area. Why not, so far they have been given free rein to converge on our community with few obstacles.{They are ruining the existing homeowner's rural lifestyle and jeopardizing our health (noise, dust, pollution, cadmium in the panels, valley fever). They are destroying wildlife habitat and lush poppy fields.} 40-6 There is absolutely no mitigation for home owner's loss to the value of their property. We bought property in the hopes of enjoying our declining/retirement years and have been faithfully paying on these properties.{The loss to the value of homes and property, and the stress this causes to homeowners is completely glossed over by Silverado as they list the impacts of these solar farms as minor. We will have almost no resale value for the house.} 40-7 {There is absolutely no mitigation for the property owners and this is grossly unfair.} 40-8 So far we have not seen one person on any local or county planning/city commission make a difference in favor of the homeowners.

We don't oppose solar projects. They are the wave of the future and are being pushed from the {President, Governor, Mayor, etc. What we strongly contest is that they are allowed to build within 300 feet of existing homes. There are so much open areas for solar projects, if they would just move them further from existing homes.} 40-9 Silverado is only looking out for the good of their company, so they don't have to build more support systems further out in remote areas. They are only considering areas close to the existing electrical generating station on Avenue J.{Supposedly their proposed areas are on already disturbed property. These lands haven't been used in many years; at what point are they ever considered 'not disturbed?'} 40-10 {They should also be considering putting solar panels on every parking lot in the city, including but not limited to schools, medical facilities, apartment complexes and malls; but mainly away from homeowners.} 40-11 {Fences and small plants are not going to cover up the visual impacts let alone the more important local homeowner impacts.} 40-12

There are many more real concerns, but mainly we would like to request you seriously consider these solar projects and their impact to existing homeowners and the Antelope Acres community. The local and state governments appear to only be concerned with how the business will benefit the state. What about the citizens who purchased their homes in good faith in California? We ask that you seriously consider the Silverado projects and their impacts. Silverado and any future solar companies should have to move their projects to areas further outside of existing homes. There is a wealth of property roughly in the same area, but away from current homeowners. Project 4 is very disconcerting to us because it is very close to our house and we are frustrated because not a single county or city agency gives us any respect or significant concern.

Thank you for your time and consideration.

JOHN H. SUPPLE
MICHELLE A. SUPPLE
44852 91st Street West
Lancaster, CA 93536

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
40 – Supple	40-1	4.3.7	See Topical Response 2.3.6 Dust Control, presented above.
	40-2	4.13	Section 4.13, Transportation and Traffic, discusses transportation impacts and mitigation measures related to construction and operation of the proposed Projects. This includes mitigation for any repair or reconstruction of roads on the construction routes.
	40-3	4.14.4.1, 4.14.5.4.	Please refer to Section 4.14.4.1 and 4.14.5.4, Utilities, for an analysis of water use and supply for the proposed Projects.
	40-4	4.14.3	The California Department of Water Resources (DWR) is part of the California Natural Resources Agency. The Department of Water Resources is responsible for the State of California's management and regulation of water usage, with the Lahontan Regional Water Quality Control Board overseeing the Antelope Valley.
	40-5	4.1.3.3.4	Section 4.1.3.3.4, Los Angeles County Rural Outdoor Lighting District Ordinance, describes the requirements for facilities located in the Rural Outdoor Lighting District. The proposed Projects will comply with these requirements. Also refer to mitigation measure A-5.
	40-6	4.11, 4.3.7, 4.3.5.1, 4.8.2.6, 1.5 4.1.7, 4.4.6	See Topical Response 2.3.4 Preservation of Rural character, presented above. Section 4.11 Noise, discusses noise impacts and mitigation. Section 4.3.7 Mitigation Measures, presents proposed mitigation of fugitive dust. Please see response to comment 40-1. Please see Section 4.3.5.1, Air Quality for the analysis of the emission of air pollutants associated with the proposed Project. Please refer to Section 4.8.2.6 and Topical Response 2.3.8 Cadmium Telluride Containing Photovoltaic Panels presented above for further analysis and discussion of hazards associated with cadmium telluride within photovoltaic panels. See Topical Response 2.3.7 Valley fever/Dust, presented above.
	40-7		See Topical Response 2.3.3 Property Values, presented above.
	40-8		See Topical Response 2.3.3 Property Values, presented above. CEQA does not provide a mechanism for compensation of any kind to individuals for perceived impacts to property resulting from a proposed project, nor would the County be involved in any discussions between a nearby property owner and any project proponent. Therefore, no response is provided for these comments. The comments are noted and will be incorporated into the project record.
	40-9	5.4	Section 5.4, Alternative 3: Select Other Project Sites, describes alternative project locations that were considered.

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
	40-10	4.4.3	The comment is noted and will be incorporated into the project record. As stated in Section 4.4.3, Biological Resources Investigation Results, disturbed areas are those areas that are either devoid of vegetation (cleared or graded) such as dirt roads, or those areas that have a high percentage of non-native weedy species (i.e., greater than 90 percent of the species cover).
	40-11	5.5	As stated in Section 5.5 of the EIR, the Applicant does not have the ability to install solar panels on private rooftops; therefore, this alternative is not feasible.
	40-12	4.1.7	Mitigation measures are developed in consideration of the landscape/viewshed and not on specific locations within that setting. As described in Section 4.1.7, mitigation in the form of vegetation screening in some areas along project boundaries would comply with the County's requirements for landscaping buffer. The landscape plans would be reviewed and considered for approval by the County Department of Regional Planning biologist prior to issuance of grading and/or building permits. This mitigation measure is one of several measures that will work in concert to minimize impacts to less than significant levels.

Comment Letter 41 – Margaret Rhyne

From: Margaret Rhyne [mailto:m.rhyne@verizon.net]
Sent: Wednesday, February 19, 2014 12:32 AM
To: Samuel Dea; Kim Szalay
Cc: nhickling@lacbos.org; cglass@ix.netcom.com; JillRMoran@gmail.com; jim.dodson@verizon.net; kj.allen96@gmail.com; kportwest@roadrunner.com; rrhomestead@qnet.com; debbie@dshsolutions.com; ontishima1775@gmail.com; DesertMama1@gmail.com
Subject: Silverado Power West DEIR

Attached are comments concerning the DEIR for the Silverado Power West Project* from Friends of Antelope Valley Open Space.
Also attached is the comment letter of July, 2012 sent in response to the Notice of Preparation to the original planner for this project, Carolina Blengini
We would like to know when comment letters for the project DEIR will be posted on the website. Please inform us concerning the timeline and process for viewing all comment letters. 41-1
Thank you for holding the hearing on the DEIR this month in Lancaster - we **hope that upcoming hearings concerning this project also will be held in the Antelope Valley.**

*Silverado Power West Los Angeles County
Project1: R2011-00833 (CUP201100079, RZC201100005), North Lancaster Ranch
Project2: R2011-00798 (CUP201100070), Western Antelope Blue Sky Ranch
Project3: R2011-00799 (CUP201100071), American Solar Greenworks
Project4: R2011-00807 (CUP201100076), Antelope Solar Greenworks
Project5: R2011-00801 (CUP201100072), Silver Sun Greenworks
Project6: R2011-00805 (CUP201100074), Lancaster WAD

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
41 – Rhyne	41-1		The comment letters and responses will be posted on the website prior to the Regional Planning Commission hearing. Notice will be provided to all members of the Project contact list via email when they are available.

Comment Letter 42 – Friends of Antelope Valley Open Space (FAVOS)

To: Carolina Blengini
County of Los Angeles Regional Planning Department
Special Projects Section
320 West Temple Street, Room 1362
Los Angeles, California 90012

From: Friends of Antelope Valley Open Space (FAVOS)
avopenspace.org
contact person: Margaret Rhyne, margaretrhyne@yahoo.com
41342 Sequoia Avenue, Palmdale CA 93551, 661 609-7280

RE: Silverado Power West Los Angeles County
Project 1: R2011-00833 (CUP201100079, RZC201100005), North Lancaster Ranch
Project 2: R2011-00798 (CUP201100070), Western Antelope Blue Sky Ranch
Project 3: R2011-00799 (CUP201100071), American Solar Greenworks
Project 4: R2011-00807 (CUP201100076), Antelope Solar Greenworks
Project 5: R2011-00801 (CUP201100072), Silver Sun Greenworks
Project 6: R2011-00805 (CUP201100074), Lancaster WAD

Date: July 20, 2012

Cumulative Impacts to the
Western Antelope Valley Globally Important Bird Area

Worldwide, a coalition of organizations including the America Audubon Society has identified over 8,000 IBAs or Important Bird Areas. The purpose of the IBA Program is to set "science-based" priorities for habitat conservation to "promote positive action to safeguard vital bird habitats." According to the Audubon's IBA website, "IBA inventories provide a scientifically defensible method for prioritizing conservation activities and allocating limited conservation dollars to ensure the maximum benefit to birds." A subset of these 8,000 sites has been given the higher status of "Globally Important Bird Areas." These 424 worldwide sites have special status due to "global conservation concern." (http://web4.audubon.org/bird/iba/

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

Describing this IBA, the Audubon Society states that, "The grassland bird community is most impressive in winter, when large numbers of raptors concentrate in

the area. Large flocks of Vesper Sparrows, Horned Lark and Mountain Bluebirds also occur here, widely extirpated elsewhere in the Los Angeles area. The agricultural fields, especially alfalfa, are productive year round. Winter brings Mountain Plover, whose flocks are among the last in southern California. After wet winters, nesting grassland species like Northern Harrier linger well into spring, and occasionally even breed. Swainson's Hawk maintains its southernmost breeding outpost in the state here. As this IBA lies in the path of a major spring migrant route for songbirds, these windbreaks can host hundreds of vireos, thrushes and warblers during April and May."

Further, IBAs are indicators of wide biological value for many species of flora and fauna. Again quoting the Audubon society, "Our data demonstrates that IBAs are also excellent indicators of biodiversity richness and are therefore also important for a wide range of species."

This globally important IBA is now threatened by what has been called an "alternative energy gold rush." The Antelope Valley IBA, rimmed by the Angeles Forest, the Tehachapi Mountains and year-round wetlands along the San Andreas Fault, is already home to AV Solar Ranch I, projected to be one of the largest solar plants in the world. A number of other projects, both large and small are also proposed.

Without a comprehensive plan in place to provide adequate mitigation for the foraging areas that will be lost due to alternative energy development, this biologically important area will be obliterated piece by piece until a tipping point is reached and threatened species like Tricolored Blackbirds, Burrowing Owls and Swainson's Hawk disappear from this area forever.

The EIR for Silverado's Power West Los Angeles County project must address the cumulative impact of its six fragmented proposed projects and provide adequate mitigation measures that preserve large areas of habitat that are contiguous with existing protected open space. 42-1

AESTHETICS

Los Angeles County Preliminary Draft Antelope Valley Area Plan, **Goal COS 19 states that, "**New development meets open space objectives while maintaining rural character." Policies listed under this heading consistently emphasize that development incorporates strategies that "preserve rural character;" "are "consistent with a rural environment;" and "maximize protection of environmental and scenic resources."

The area proposed for Silverado's Power West project currently consists of farms, fallow agricultural fields, and protected open space including two state parks and areas

protected by three different conservancies. Residents live on large acreage and send their children to rural schools free of urban or industrial encroachment. Silverado's proposed Power West utility-scale energy installations **will exacerbate the electrical industrialization of this scenic area,** replacing wildlife habitat and unobstructed views with electrical substations, industrial maintenance yards, extensive security fencing, and vast expanses of solar voltaic panels. **These visual blights are not compatible with preserving the "rural character" of this area; are not "consistent with a rural environment;" and do not "maximize protection of environmental and scenic resources**." 42-2

AIR QUALITY

The Western Antelope Valley has already experienced the dust pollution caused by the wholesale transformation of desert land due to vegetation removal and grading required by utility-scale energy installations. AV Solar Ranch 1 construction has resulted in dramatic dust storms creating hazardous conditions for both people and automobiles, causing near zero visibility conditions on local roads including Highway 138. These dust storms are particularly disturbing considering the prevalence of Valley Fever spores in the local environment and the documented increase in cases of this life threatening disease when soil disturbance is combined with the high winds common in the Western Antelope Valley. How will the construction process for Silverado's 6 installations avoid these impacts? 42-3

Dust storms caused by both construction and operation of industrial scale solar development are also harmful to desert plants and animals. According to the article "**Wildlife Conservation and Solar Energy Development in the Desert Southwest, United States"** by Jeffrey e. Lovich and Joshua R. Ennen published in the journal BioScience, December 2011, published by the University of California Press on behalf of the American Institute of Biological Sciences:

> These construction activities produce dust emissions, especially in arid environments (Munson et al. 2011), which already have the potential for natural dust emission. Dust can have dramatic effects on ecological processes at all scales (reviewed by Field et al. 2010). At the smallest scale, wind erosion, which powers dust emission, can alter the fertility and water-retention capabilities of the soil. Physiologically, dust can adversely influence the gas exchange, photosynthesis, and water usage of Mojave Desert shrubs (Sharifi et al. 1997). Depending on particle size, wind speed, and other factors, dust emission can physically damage plant species through root exposure, burial, and abrasions to their leaves and stems. The physiological and physical damage to plant species inflicted by dust emissions could ultimately reduce the plants' primary production and could indirectly affect wildlife food plants and habitat quality.

Thus the dust produced by Silverado's 6 facilities will threaten not only the health of humans and safety of transportation corridors but also will have the potential to damage native plants throughout the Western Antelope Valley. With Silverado's proposed facility #5 located just 3 miles away from the Antelope Valley California Poppy Reserve, this dust pollution could have catastrophic effects on the world famous wildflower fields of the Reserve and adjacent areas. 42-4

For this and other reasons, we disagree with the assertion on page 15 of the project Initial Study that, " Projects 1 – 6 do not contain or conflict with any SEAs**, Wildflower Reserve Areas**.." 42-5

GEOLOGY AND SOILS

Dust suppressant measures used during both construction and operation of Silverado's proposed project also have the potential to negatively impact nearby areas. Again according to Lovich and Ennen (from the article previously quoted):

> During operation, to combat dust, solar energy facilities apply various dust suppressants to surfaces with exposed soil (e.g., graded areas, areas with vegetation removed, roads).... In a study conducted in the Mojave Desert in which the hydrological impacts of dust suppressants were compared, Singh and colleagues (2003) reported that changes did occur in the volume, rate, and timing of runoff when dust suppressants were used.

These changes included drastic alteration to area hydrology effecting timing and amount of runoff and well as the " increase in total suspended solid loads in runoff." Thus this proposed solar installation will not only destroy the desert habitat underneath its panels but has the potential of negatively impacting habitat for plants and animals in the surrounding area. As explained by Lovich and Ennen:

> Others have highlighted the fact that there is a dearth of scientific research and literature on the effects of dust suppressants on wildlife, including the most commonly used category of dust depressant: brines and salts (Piechota et al. 2004, Goodrich et al. 2008). However, the application of $MgCl_2$ to roads was correlated with a higher frequency of plant damage (Goodrich et al. 2008). Because chloride salts, including $MgCl_2$, are not confined to the point of application but have the ability to be transported in runoff (White and Broadly 2001), the potential exists for a loss of primary production associated with plant damage in the habitats surrounding a solar facility, which could directly affect wildlife habitat.

On the subject of soil erosions Lovich and Ennen state that:

> Any disturbance and alteration to the desert landscape, including the construction and decommissioning of utility-scale solar energy facilities, has the potential to increase soil erosion. Erosion can physically and physiologically affect plant species and can thus adversely influence primary production (Sharifi et al. 1997, Field et al. 2010) and food availability for wildlife.

> Solar energy facilities require substantial site preparation (including the removal of vegetation) that alters topography and, thus, drainage patterns to divert the surface flow associated with rainfall away from facility infrastructure (Abbasi and Abbasi 2000). Channeling runoff away from plant communities can have dramatic negative effects on water availability and habitat quality in the desert, as was shown by Schlesinger and colleagues (1989). Areas deprived of runoff from sheet flow support less biomass of perennial and annual plants relative to adjacent areas with uninterrupted water-flow patterns.

The extreme soil compaction required at utility-scale solar sites will drastically alter both drainage patterns and the ability of the land to absorb run-off. With area users already being subject to severe cutbacks, this is a serious concern. How will the cumulative effect of soil compactions at these 6 sites, in addition to the multiple facilities both existing and proposed for the Western Antelope Valley, increase evaporation and diminish the ability of the land to absorb rain and replenish the aquifer? 42-6

HAZARDS/HAZARDOUS MATERIALS

Area residents have described the dust blowing from the AV Solar Ranch 1 construction site sticking to their cars and clothes. A chilling thought is the fear of what this sticky dust does when inhaled by people and animals. It will inevitably also have negative effect on native plants when it coats their leaves and blooms.{What dust suppressants, soil sealers, rust suppressants and other industrial chemicals will be used by Silverado's facilities? What studies document the safety of these products when used in the massive quantities demanded by a combined 700 plus acre installation?} 42-7 {Will rodenticides, herbicides or soil conditioners be used during construction and/or operation and what will their effect be on people, plants and animals?} 42-8

Electromagnetic Fields

Due to the threatened electrical industrialization of the Western Antelope Valley, an issue of increasing concern is the cumulative effects of electromagnetic field generation or EMFs. EMFs are created by electricity traveling through the buried and overhead cables of solar installation. According to Lovich and Ennen's EMFs are a concern "from the standpoint of both human and wildlife health, yet little information is available to assess the potential impact of the EMFs associated with USSED [utility-scale solar energy development] on wildlife." Further they state that:

> Concerns about EMFs have persisted for a long time, in part because of controversy over whether they're the actual cause of problems and disagreement about the underlying mechanisms for possible effects. For example, there is presently a lack of widely accepted agreement about the biological mechanisms that can explain the

consistent associations between extremely low-frequency EMF exposure from overhead power lines and childhood leukemia, although there is no shortage of theories (Gee 2009).

The association of EMF exposure with childhood leukemia is particularly alarming due to an electrical substation already adjacent to Del Sur School and the proposals for solar installations that could eventually surround this rural K-8 school with electrical production and transmission installations. Silverado's proposed installations will be an added source of existing and proposed facilities exposing area residents and visitors to EMFs with unknown but potentially adverse health effects for people, plants and animals.

BIOLOGY

In addition to the biological concerns already addressed, invasion of non-native species including Russian thistle, European grasses and non-native species of mustard is a pressing concern for this area known for its native wildflower fields. These opportunistic species are among the first to sprout on cleared terrain. In Lancaster, growth of these invasive plants underneath and adjacent to solar panels is common. If this growth is not vigilantly eradicated among Silverado's solar arrays the threat of such species spreading onto the Poppy Reserve and other wildflower areas will lead to increased detrimental competition with native annuals, already a serious threat in the area. 42-9

{How will the growth of these and other non-native species be prevented on the lands of these proposed energy plants? Will herbicides or soil sealers be used? What effect will these chemicals have on the native plants of the area? 42-10 }{How will the destruction of existing native plants be mitigated? 42-11 }

If ground cover is used underneath the solar panels, will it spread to surrounding areas crowding out native wildflowers? How will planting and growth be managed? 42-12

Light Pollution

Light pollution created by solar installations is another example of the adverse effects that utility-scale solar installations have on the surrounding environment. Researchers describe two different types of light pollution that are created by solar facilities: ecological light pollution and polarized light pollution. Ecological light pollution has been shown to be a serious threat to both desert animals and insects. Concerning polarized light, quoting Lovich and Ennen, "Polarized is produced a high levels at facilities using photovoltaic panels, because dark surfaces polarize light." Regarding the negative

effect on insects and therefore all of the other life forms that depend on insects for food and pollination, these scientists state:

> Numerous anthropogenic products—usually those that are dark in color (e.g., oil spills, glass panes, automobiles, plastics, paints, asphalt roads)—can unnaturally polarize light, which can have adverse effects on wildlife (for a review, see Horváth et al. 2009). For example, numerous animal species use polarized light for orientation and navigation purposes (Horváth and Varjú 2004). Therefore, the potential exists for PLP to disrupt the orientation and migration abilities of desert wildlife, including those of sensitive species. In the review by Horváth and colleagues (2009), which was focused mostly on insects but included a few avian references, they highlighted the fact that anthropogenic products that produce PLP can appear to be water bodies to wildlife and can become ecological traps for insects and, to a lesser degree, avian species. Therefore utility-scale solar energy facilities at which photovoltaic technology is used in the desert Southwest could create a direct effect on insects (i.e., ecological trap), which could have profound but unquantified effects on the ecological community surrounding the solar facility. In addition, there may be indirect effects on wildlife through the limitation of plant food resources, especially if pollinators are negatively affected

With pollinators already in decline, the adverse effect of light pollution created by solar installations is a serious threat to native plants and both small and large-scale food production.

CONCLUSION

Home of the world famous Antelope Valley California Poppy Reserve and identified as a Globally Important Bird Area, the Western Antelope Valley provides a refuge from industrialization for both wildlife and people. When will the environmental impacts and visual blight of electrical substations, transmission towers, and vast security fenced and illuminated installations reach a "tipping point" that will destroy this refuge forever? The cumulative impacts of this and the many other electrical facilities existing and proposed for this rural area must be thoroughly addressed before this or any other utility-scale industrial energy installations are allowed to move forward. 42-13

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
42 – FAVOS	42-1	4.1 through 4.13, 4.4.6, 4.4.8	Sections 4.1 through 4.13 discuss the cumulative impacts associated with the proposed Project. Section 4.4.6, Impacts Analysis, describes impacts to wildlife habitat from the proposed Projects and Section 4.4.8, Mitigation Measures, describes mitigation that will be implemented to protect species habitat.
	42-2	4.1.6	See Topical Response 2.3.4 Preservation of Rural Character, presented above.
	42-3	4.3.7	See Topical Response 2.3.7 Valley Fever/Dust, presented above.
	42-4	4.3.6, 4.3.7	See Topical Response 2.3.7 Valley Fever/Dust, presented above.
	42-5	4.4	As discussed in Section 4.4 Biological Resources, the proposed Projects are not located within a designated SEA; therefore, SEA conformance criteria do not apply. Additionally, no local community conservation plans that could contain applicable land use criteria apply to the proposed Projects.
	42-6	4.9.5.5	4.9.5.5 Presents information regarding the proposed Projects' impacts relative to stormwater runoff and infiltration rates.
	42-7	4.8.5	As stated in Section 4.8.5, Impacts Analysis, hazardous materials used during construction activities may include gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, and other supplies. All hazardous materials would be transported, stored, and properly disposed of in compliance with all applicable local, state and federal laws and regulations. The accidental release of hazardous materials or wastes during construction activities is possible. The accidental release of hazardous materials or wastes would be promptly contained and abated in accordance with all applicable laws and regulatory requirements, and therefore is not expected to result in a significant impact. Only materials approved for use by CA DTSC and USEPA would be used at the sites. Studies to evaluate such chemicals is beyond the scope of CEQA. The Hazardous Materials Management Plan would contain the MSDS sheets for all chemicals used/stored onsite during construction. Section 4.8.6 Mitigation Measures, HH-1 through HH-5 would reduce impacts associated with an accidental release of hazardous materials. Mitigation requires that a Hazardous Materials Management Plan and Hazardous Waste Management Plan are developed and approved prior to construction beginning. Section 3.4.9 Site Preparation, describes the methods that will be used to during the construction of the facility. Road-grade palliatives such as calcium chloride or comparable nontoxic products would be applied to control dust on graded roads as well as staging areas.
	42-8		The use of herbicides is not planned at the project sites. The projects will utilize best management practices to re-establish pre-existing vegetation or establish drought tolerant, native, or native compatible vegetation approved by the County biologist. Refer to Section 4.3, Air Quality, and Section 4.4, Biological Resources.

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
	42-9		Interior array areas shall have re-established existing vegetation or be established with drought tolerant, native, or native compatible vegetation approved by the County biologist. Refer to mitigation measure AQ-10 for additional information.
	42-10		See response to comment 42-8.
	42-11		The projects will utilize best management practices to re-establish pre-existing vegetation. Refer to Section 4.3, Air Quality, and Section 4.4, Biological Resources.
	42-12		The projects will utilize best management practices to re-establish pre-existing vegetation or establish drought tolerant, native, or native compatible vegetation approved by the County biologist. The use of native vegetation will be used to the greatest extent possible, and no impact to surrounding vegetative communities is expected. Refer to Section 4.3, Air Quality, and Section 4.4, Biological Resources.
	42-13	4.1 through 4.13	Sections 4.1 through 4.13 discuss the cumulative impacts for the proposed Project.

Comment Letter 43 – Friends of Antelope Valley Open Space (FAVOS)

To: Kim Szalay
Samuel Dea
County of Los Angeles Regional Planning Department
Special Projects Section
320 West Temple Street, Room 1362
Los Angeles, California 90012

From: Friends of Antelope Valley Open Space (FAVOS)
avopenspace.org
contact person: Margaret Rhyne, m.rhyne@verizon.net
41342 Sequoia Avenue, Palmdale CA 93551, 661 609-7280

RE: Silverado Power West Los Angeles County
Project 1: R2011-00833 (CUP201100079, RZC201100005), North Lancaster Ranch
Project 2: R2011-00798 (CUP201100070), Western Antelope Blue Sky Ranch
Project 3: R2011-00799 (CUP201100071), American Solar Greenworks
Project 4: R2011-00807 (CUP201100076), Antelope Solar Greenworks
Project 5: R2011-00801 (CUP201100072), Silver Sun Greenworks
Project 6: R2011-00805 (CUP201100074), Lancaster WAD

Date: February 18, 2014

We have the following comments concerning the above project:

1. **Rural Character:** Residents moved to the Western Antelope Valley and visitors visit precisely because of their appreciation for the rural character of the area, a characteristic honored repeatedly in LA County's existing and proposed areawide plans. Silverado's proposed utility-scale energy installations **will exacerbate the electrical industrialization of this scenic rural area, further replacing wildlife habitat and unobstructed views with electrical substations, industrial maintenance yards, extensive security fencing, and vast expanses of glass panels.** 43-1

   Los Angeles County Preliminary Draft Antelope Valley Area Plan, Goal COS 19 states this goal for new development:

   "New development meets open space objectives while maintaining rural character." 43-2

   Policies listed under this heading emphasize that development must incorporate strategies that **"preserve rural character;"** are **"consistent with a rural**

environment;" and **"maximize protection of environmental and scenic resources."** The lands proposed for Silverado's project is in an area that:

- **Consists of desert grassland and fallow agricultural fields** bordered by and connecting two mountain ranges; a connection that provides crucial wildlife corridors between southern and central California.
- **Provides foraging and nesting habitat** and protected open space including two state parks and areas held by three different conservancies.
- **Is the home of everyday citizens** of Los Angeles County who have invested hard earned money into what they thought was guaranteed to be an agricultural area; establishing homes on acreage, never dreaming that down the road planners would decide that industrial energy installations were appropriate for areas zoned for farmland.

43-2 cont.

The statements in the DEIR that " from a distance, proposed SGFs would not appear dissimilar to agricultural fields" is ludicrous. Even from a distance, a sea of glass surrounded by chain link and barbed wire can in no way be mistaken for open space. 43-3

The visual blight of industrial development is not compatible with preserving the "rural character" of this area; is not "consistent with a rural environment;" and does not "maximize protection of environmental and scenic resources."

2. **Scenic Value:** We do not agree in any way with the opinion expressed in the DEIR that "scenic character on the valley floor is generally low." This is opinion not shared by local residents and the thousands of visitors from all over the world who come to our valley every spring to view the expansive displays of native wildflowers. 43-4

3. **Irrigation:** Two year time frame for irrigating landscaping to mitigate impacts to view shed entirely inadequate. Native plants that would not need irrigation after two years are low growing and would not screen views of chain-link, barbed wire, metal and glass. The DEIR states that it is "unlikely but possible" that additional water would be needed, However it is not unlikely but in fact absolute that plants that would screen the view of these industrial installations would have to be watered for the life of the project. 43-5

4. **Biological Surveys:** Bio surveys that were done in the midst of a severe and prolonged drought cannot reflect in any meaningful way the true biodiversity of the lands that would be destroyed by this project. Comments concerning foraging and nesting value on all six parcels for Swainson's hawk, tricolored blackbirds, and burrowing owls – all listed as California state threatened species under the 43-6

California Endangered Species Act (CESA) – are not representative of the true value to these species of the land proposed for destruction. Swainson's hawk and tricolored blackbirds, once abundant throughout Southern California, occur in Southern California only in the Western Antelope Valley. The cumulative effect of this and the many other projects approved nearby may very well be the tipping point leading to species extirpation. 43-7

5. **Mitigation:** We do not find an **estimate in the DEIR for the total acreage impacted.** This information is necessary to gain an accurate understanding of the mitigation strategies proposed in the document. We see also that a 10 foot barrier is proposed for onsite mitigation for damage to the view shed. We completely reject the use of this same onsite area as any part of a mitigation plan for the loss of foraging and nesting habitat for California endangered species. **Strips of onsite land not managed by a CDFW authorized agency and unconnected to existing protected land are in no way adequate mitigation** for the loss of habitat for owls, raptors and migratory birds that rely on this area for the continuation of their species in Southern California. 43-8

Regarding biological surveys and mitigation please also see section that concludes this document regarding the Western Antelope Valley Globally Important Bird Area.

6. Air Quality: The Western Antelope Valley has already experienced the dust pollution caused by the transformation of desert land due to vegetation removal and grading required by industrial energy installations. AV Solar Ranch 1 construction has resulted in dramatic dust storms creating hazardous conditions for both people and automobiles, causing near zero visibility conditions on local roads including Highway 138. These dust storms are particularly disturbing considering the prevalence of Valley Fever spores in the local environment and the documented increase in cases of this life threatening disease when soil disturbance is combined with the high winds common in the Western Antelope Valley. **How will the construction process for Silverado's 6 installations avoid these impacts? This is of special concern for parcel 2, which is cut through from southwest to northeast with the ridges of dry washes - as shown in the map to the left** (parcel 2 in outlined in black**). It is obvious that extensive grading will be required on this parcel.** 43-9

Western Antelope Valley Globally Important Bird Area

People often mistakenly believe that recovering agricultural areas that are gradually being reclaimed by nature are "worthless desert" good only for industrialization. However, knowledgeable biologist, birders and wildflower watchers have a very different view of this habitat. 43-10

Worldwide, a coalition of organizations including the America Audubon Society has identified over 8,000 IBAs or Important Bird Areas. The purpose of the IBA Program is to set "science-based" priorities for habitat conservation to "promote positive action to safeguard vital bird habitats." According to the Audubon's IBA website, "IBA inventories provide a scientifically defensible method for prioritizing conservation activities and allocating limited conservation dollars to ensure the maximum benefit to birds." A subset of these 8,000 sites has been given the higher status of "Globally Important Bird Areas." These 424 worldwide sites have special status due to "global conservation concern." (http://web4.audubon.org/bird/iba/

One of these 424 areas is in Los Angeles County, in the Western Antelope Valley. This site, the **Antelope Valley Important Bird Area** provides breeding, foraging and nesting habitat for Swainson's Hawk, Golden and Bald Eagles, Northern Harriers, Burrowing Owls, Le Conte's Thrasher, Tricolored Blackbirds and other sensitive species including the California Condor. 43-11

Describing this IBA, the Audubon Society states that, "The grassland bird community is most impressive in winter, when large numbers of raptors concentrate in the area. Large flocks of Vesper Sparrows, Horned Lark and Mountain Bluebirds also occur here, widely extirpated elsewhere in the Los Angeles area. The agricultural fields, especially alfalfa, are productive year round. Winter brings Mountain Plover, whose flocks are among the last in southern California. After wet winters, nesting grassland species like Northern Harrier linger well into spring, and occasionally even breed. Swainson's Hawk maintains its southernmost breeding outpost in the state here. As this IBA lies in the path of a major spring migrant route for songbirds, these windbreaks can host hundreds of vireos, thrushes and warblers during April and May." 43-12

Further, IBAs are indicators of wide biological value for many species of flora and fauna. Again quoting the Audubon society, "Our data demonstrates that IBAs are also excellent indicators of biodiversity richness and are therefore also important for a wide range of species."

This globally important IBA is now threatened by what has been called an "alternative energy gold rush." The Antelope Valley IBA, rimmed by the Angeles Forest, the Tehachapi Mountains and year-round wetlands along the San Andreas Fault, is already

FAVOS: Silverado DEIR February 18, 2014 Page 4

home to AV Solar Ranch I, projected to be one of the largest solar plants in the world. A number of other projects, both large and small are also proposed.

Without a comprehensive plan in place to provide adequate mitigation for the foraging areas that will be lost due to cumulative effects of multiple industrial energy projects, this biologically important area will be obliterated piece by piece until a tipping point is reached and threatened species like Tricolored Blackbirds, Burrowing Owls and Swainson's Hawk disappear from this area forever. 43-13

The DEIR for Silverado's Power West Los Angeles County project does not address the cumulative impact of the six parcels of this project in conjunction with its additional three City of Lancaster projects; the recently approved West Antelope Project (adjacent to Power West's proposed parcel 2); and the other existing solar projects in the Western Antelope Valley. 43-14

Further, it does not:

Adequately explain how proposed mitigation measures will preserve large areas of offsite habitat that are contiguous with existing protected open space and follow existing CDFW guidelines. 43-15

Provide evidence of a landscape plan that will screen the view of chain link fences, barbed wire and seas of glass. 43-16

Describe new dust control measures that will succeed where others have failed to protect workers and residents from dust born disease and drivers from injury due to reduced visibility on area roads. 43-17

Protect area residents from property devaluation due to the change in character of the area from rural to industrial. 43-18

Give an adequate assessment of water usage based on continuing need for both dust abatement and landscape irrigation for the life of the project. 43-19

Attached: letter of July 2012

FAVOS: Silverado DEIR February 18, 2014 Page 5

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
43 – FAVOS	43-1	4.1.6	See Topical Response 2.3.4 Preservation of Rural Character, presented above.
	43-2		The Los Angeles County Preliminary Draft Antelope Valley Area Plan is currently in draft form and has not been approved by Los Angeles County; therefore, it has no bearing on the current EIR.
	43-3		The comment is noted and will be incorporated into the project record.
	43-4		The comment is noted and will be incorporated into the project record.
	43-5		The comment is noted and will be incorporated into the project record.
	43-6		The comment is noted and will be incorporated into the project record.
	43-7	4.4.3	Avian habitat surveys were performed as part of the studies to support the development of the proposed Project. The results of these studies are provided in Section 4.4.3, Biological Resources Investigation Results, of the EIR. The project sites consist of a predominately depauperate landscape (i.e., bare ground, disturbed salt bush scrub habitats, non-native grasslands, and developed lands). Project lands are generally limited in the total number and variety of plant and wildlife species, and lacks high biomass density and biological diversity. Furthermore, no suitable Swainson's hawk foraging habitat was observed within Project limits. No alfalfa, hay, or other irrigated agricultural lands were detected within the Project Sites. Irrigated agricultural lands (e.g., alfalfa and hay) are widely recognized as an essential element of viable Swainson's hawk foraging habitat within the Antelope Valley, and hawks - as well as other species of raptors, are highly dependent upon it to support their prey items. Irrigated agricultural lands support the abundant small mammal (i.e., pocket gophers and voles) and invertebrate prey base (i.e., grasshoppers) that birds of prey need to subsist. As stated in Section 4.4.8, Mitigation Measures, a focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted (Mitigation Measure B-2). Additionally, mitigation measure B-4 states: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity. The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats: Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as

<table>
<tr><th>Comment Letter Number</th><th>Comment Number</th><th>Section Number in EIR</th><th>Response to Comment</th></tr>
<tr><td></td><td></td><td></td><td>follows:
• A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed Significant Ecological Area (SEA).
• A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat;
• A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat.
Furthermore, the cumulative effects of these projects on sensitive biological species are analyzed in Section 4.4, Biological Resources. Additional information on biological impacts is provided as a topical response.</td></tr>
<tr><td></td><td>43-8</td><td>3.0</td><td>Tables 3-2 and 3-5 in Section 3.0 of the EIR provides the total acreage of land needed for each proposed project and the estimated areas of disturbance associated with each of the proposed Projects. The table provided below provides a summary of the total developed acreage associated with the proposed Projects.
<table>
<tr><th></th><th>Landscape</th><th>Undeveloped</th><th>Total Project Size</th><th>Total Developed Acreage</th></tr>
<tr><td>Project 1</td><td>1.2</td><td></td><td>240</td><td>238.8</td></tr>
<tr><td>Project 2</td><td>0.51</td><td>39</td><td>157</td><td>117.49</td></tr>
<tr><td>Project 3</td><td>1.47</td><td></td><td>135.61</td><td>134.14</td></tr>
<tr><td>Project 4</td><td>1.94</td><td></td><td>256</td><td>254.06</td></tr>
<tr><td>Project 5</td><td>0.59</td><td></td><td>160</td><td>159.41</td></tr>
<tr><td>Project 6</td><td>0.31</td><td></td><td>38.49</td><td>38.18</td></tr>
</table></td></tr>
<tr><td></td><td>43-9</td><td>4.3.7</td><td>Section 4.3.7, Mitigation Measures, discusses mitigation of fugitive dust. As indicated in the site and grading plans for Project 2, large portions of the site will not be graded or subsequently developed due to the existing topography onsite.</td></tr>
<tr><td></td><td>43-10</td><td></td><td>The comment is noted and will be incorporated into the project record.</td></tr>
<tr><td></td><td>43-11</td><td>4.4</td><td>Refer to Section 4.4, Biological Resources, for information pertaining to sensitive and special status species in the region. Also see Topical Response 2.3.9 Biological Resources, presented above.</td></tr>
<tr><td></td><td>43-12</td><td>4.4.8</td><td>The comment is noted and will be incorporated into the project record. There are no irrigated agricultural fields within the proposed Projects.</td></tr>
<tr><td></td><td>43-13</td><td>4.4.8</td><td>Refer to Section 4.4.8 for information on habitat mitigation. Mitigation Measures B-4 through B-8 provides for the mitigation of development of potential nesting and</td></tr>
</table>

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
			foraging habitat. Additional information on cumulative impacts is provided in Section 4.4, Biological Resources. See Topical Response 2.3.9 Biological Resources, presented above, for additional information on mitigation for sensitive or special-status species.
	43-14	4.1 through 4.13	Section 2.1 of the EIR addresses the purpose of the California Environmental Quality Act and the EIR, and Section 2.4 of the EIR addresses the scope of analysis that is included in the EIR per CEQA guidelines. The EIR addresses cumulative impacts in each subsection of Section 4.0, as required under CEQA, using the list of cumulative projects developed in coordination with the County. The list of cumulative projects evaluated for this Project includes solar, wind, residential, and commercial development in LA County and the City of Lancaster.
	43-15	4.4.8	Mitigation Measure B-4 in Section 4.4.8, Mitigation Measures states that mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily. Swainson's hawk: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity. The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats: Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows: • A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed Significant Ecological Area (SEA). • A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat; • A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat. Burrowing owl: Mitigation for any occupied burrowing owl burrows found during pre-construction surveys will include a comprehensive tiered approach: • Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite; • Disturbance avoidance of occupied burrows during nesting period February 1 –

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
			August 31; • Impact avoidance of occupied burrows; • Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW). • Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback). • Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project. Alkali Mariposa Lily: Alkali mariposa lily will be avoided to the greatest extent possible. If pre-construction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable. For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.
	43-16	4.1.7	Mitigation measures are developed in consideration of the landscape/viewshed and not on specific locations within that setting. As described in Section 4.1.7, mitigation in the form of vegetation screening in some areas along project boundaries complies with the County's requirements for the Landscape Plan required by the County. The plans have been reviewed and accepted by the County Department of Recreation and Parks. This mitigation measure one of several that will work in concert to minimize impacts to less than significant levels.

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
	43-17	4.3	Section 4.3, Air Quality, addresses these concerns of fugitive dust control. Specifically, mitigation measure AQ-8 states that mowing shall be utilized instead of grading, AQ-1 states that watering will occur at least twice daily and AQ-11 that earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour. The Dust Control Plan approval is required prior to the grading permit, per the MMRP. See Topical Response 2.3.6 Dust Control, presented above.
	43-18		See Topical Response 2.3.3 Property Values presented above.
	43-19	4.14	See Topical Response 2.3.5 Water Supply, presented above.

Comment Letter 44 – Jim and Coralee Reuter

Lancaster, Calif
Feb 11 - 14

Regional Planning and
Mr. Michael Antonovich, Supervisor;

This letter is being sent to you to request you to not allow Silverado to put in Project 3 at 70 St. West & Ave G Antelope acres, California, 93536. My husband Jim & I live directly west of the proposed project, daughter and 14 & 13 year old grandchildren live directly south of the proposed project. There is absolutely nothing between our 10 acres and our daughter's 5 acres and this unwanted project. We all moved out here 13 years ago for the view, room, quiet, peace, slower pace and now this intrusion. 44-1

NO!

The pictures in the EIR are totally bogus. It only mentions homes north & east of the proposed project. Well, there are 3 homes right here to the south and west that include 9 people; 4 of them kids 14 & younger. Directly across G is another home with 2 people. Two of the kids are our 44-2

2

only grandchildren who live south of the proposed project with their mother, our daughter. We all ask that you deny this project, for their and our preserved life style, safety, peace of mind, unobstructed view and quality of life. 44-2

We ask that a study be done on the long term effects of cadmium on humans, especially youngsters, air and ground water since we are all on private ground water wells. 44-3

also Mr. Antonovich, would you want this as your families sunrise view? We love watching the sun rises & sun sets here in the acres. One main reason we live here.

We are also very concerned about Valley Fever which has become more and more common when the desert floor is ground up & disturbed. We ask that a study be done on Valley Fever and it's symptoms and long term effects. I personally know a teacher of 6 who had been a Physical Education Instructor 44-4

who died from Valley Fever and many acquaintances know others who have died or are ill from it. My grandson and I already suffer greatly from dust allergies. 44-4 cont.

Our 2 grandchildren and daughter & us use a road between our homes that would be totally obliterated by this project. Project 3 should not be put in. Please stop it! 44-5

Property values would be drastically lowered if these solar panels surrounded us. We are already on a fixed income & in our late 60's, so we need financial security from our home. 44-6

In 2 1/2 weeks on my walks I have personally seen 3 coyotes, 6 ravens, rabbits, coveys of quail, a gopher and a hawk, and a half dozen owls come & go. You and I know these would be greatly impacted by this project. I want an EIR done on the native wildlife. We also have wildlife trails in the projected area. 44-7

Our concern is also that Fox airport pilots would be blinded by the glare from the panels. On Feb. 10, 2014 I personally went to Fox airport along with another concerned neighbor & we talked to Mr. Irving, the manager. He was not aware of this proposed project & no one from Silverado has talked to him regarding it. At the Feb. 1 - 2014 meeting at Lancaster library a Silverado solar employee stated that "pilots had no concerns about glare from the panels". We assumed he was giving us facts from our local pilots, now we don't believe that. At the Feb. 1 meeting the same employee stated, "the project would be watered twice a day!" What a joke. With Calif. in a drought yet to water twice a day is like spitting into the wind. They have no idea what it's like up here. We get winds that obscure my neighbors who live 500 yds. North of me. 44-8 44-9

So Silverado's pictures are bogus they say they've talked to people who they really haven't. What else isn't true? 44-10

I ask for a new unbiased EIR and a temporary injunction on Silverado's

projected project 3 in L. A. County.
We need to know what scientific studies
have been done and see the results. 44-10 cont.

Silverados letter sent to us states
one project is not dependent on another.
Please investigate property values,
valley fever, Cadmium, and the other
concerns I've listed. A new EIR
report is what we're asking for and
a denial to Silverado's project 3. 44-11

Thank you,
Jim + Coralee Reuter
7362 west ave G
Lancaster, Calif.
93536
Coralee Reuter

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
44 – J. and C. Reuter	44-1		The comment is noted and will be incorporated into the project record.
	44-2		Refer to topical response 2.3.1, Visual Simulations/Aesthetics, presented above.
	44-3	4.8.2.6	Please refer to Section 4.8.2.6 for further analysis and discussion of hazards associated with cadmium telluride within photovoltaic panels. See Topical Response 2.3.8 Cadmium Telluride Containing Photovoltaic Panels, presented above.
	44-4		Section 4.3.7 Air Quality, Mitigation Measures, addresses these concerns of fugitive dust control. The Dust Control Plan approval is required prior to issuance of the grading permit, per the Mitigation and Monitoring Plan (MMRP). Also see Topical Response 2.3.7 Valley Fever/Dust, presented above.
	44-5		The comment is noted and will be incorporated into the project record.
	44-6		See Topical Response 2.3.3 Property values, presented above.
	44-7	4.4	Section 4.4, Biological Resources, addresses these concerns.
	44-8	8.1.2, 4.10	Section 8.1.2, Regional and Local Agencies, lists the Airport Land Use commission as being consulted. Section 4.10, Land Use and Planning, also addresses this concern.
	44-9		See Topical response 2.3.5 Water Supply, presented above.
	44-10		The comment is noted and will be incorporated into the project record.
	44-11		See Topical Response 2.3.3 Property Values, presented above. See Topical Response 2.3.7 Valley Fever/Dust, presented above.

Comment Letter 45 – Catalina and Vahid Bashash

To: Carolina Blengini
County of Regional Planning Department
Special Projects Section
320 West Temple Street, Room 1362
Los Angeles, CA 90012

RECEIVED
FEB 12 2014
BY:

This letter is made to protest the proposed development of a 135.61 acre solar power facility in Lancaster along West Avenue G and between 70th Street West and 75th Street West. Project Number: R2011-00799; APNs 3268-018-035, 3268-018-002, and 3268-018-036; American Solar Greenworks. This project is *directly* adjacent to our home as well as adjacent to the lands and properties of our neighbours in the area and only 1 mile away from William J. Fox Airport. The solar farm is also going to be about 2 miles from Apollo Community Regional Park, which is absolutely beautiful and events are held there during the year. 45-1

We could not believe it when we received the letter regarding the proposed plans, because of how close to our homes and places in the area such a huge development would be, and more-so when we heard the developers claim that the plans would have no impact on the community! The solar farm here would not remove a small section of road we use, but it would lower the value of homes and properties in the area and obstruct the view of the landscape for many of us here. Would *you* like it if someone decided they wanted to put 135 acres of 8ft tall solar panels just outside your back-yard and in the middle of your community? 45-2 This project would work just as well in the empty desert areas not too far away where there isn't anyone living steps away from this very large project and where the visual impact of such a thing would not be of any significance. Myself and others who may be living in the shadow of this project sincerely ask you deny this proposal and/or have it built elsewhere. 45-3

Sincerely,

Catalina and Vahid Bashash
7360 W Avenue G, Lancaster, CA 93536
(818) 730-1177
zerak1966@yahoo.com

1

proposed project
existing homes
existing roads
70th St W
W Avenue G
7360 W Avenue G
Ave G-4
70th St W
Ave G-12
75th St W
75th St W

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
45 - Bashash	45-1		See Topical Response 2.3.3 Property Values, presented above.
	45-2		See Topical Response 2.3.3 Property Values, presented above.
	45-3	4.1	See Topical Response 2.3.1 Visual Simulations/Aesthetics, presented above.

Comment Letter 46 – Bernie Walp and Elizabeth Bryan

9348 West Avenue I
Lancaster, Calif. 93536-8002

19 February 2014

Ms. Carolina Blengini
Los Angeles County
Department of Regional Planning
Special Projects Section, Room 1362
320 West Temple Street
Los Angeles, Calif. 90012

Subj.: Initial observations:
Environmental review no. 201100109

Dear Ms. Blengini:

We thank the Planning Department for seeking to impose standards of scale, appropriate use and quality on designs by by real-estate developers in the Antelope Valley. Recently we obtained a copy of the Draft Environmental Impact Report filed with your agency the Silverado partnership, regarding which we offer several recommendations:

Silverado must be stopped from destroying wildlife species. Our own land, adjacent to land Silverado wants to pave with solar panels, is the residence of half a dozen wild rabbits and countless small birds, deer mice, lizards and squirrels. The entire region—including Silverado's land—is ranged by coyotes and owls, two of which reside in trees on our land. If Silverado's project harms these animals' ability to move freely and forage, then Silverado will have destroyed irrevocably a key defining characteristic of rural Antelope Valley. 46-1

Silverado must eliminate its dust impact. As we write this, the wind has been blowing nearly steadily 15–30 miles per hour across Silverado's land toward our house. Nevertheless, currently *there is absolutely no dust.* The land is covered by desert growth that protects the soil and keeps the earth solid. If construction and operation of the Silverado 46-2

project bears any resemblance to a project that began last week one mile to our north, we soon will be inundated with dust. If any of Silverado's dust blows onto our land at any time during its construction or operation, then Silverado will have exacerbated a known environmental crisis and will have materially and adversely damaged our right to live on our property. 46-2 cont.

Silverado's light pollution must be prevented. We hope Planning Department officials have visited this area at night. A critical component of Antelope Valley's rural environment is its dark sky. On a clear night with no Moon, it is possible to see well enough to walk about with only the aid of starlight. It is a peaceful area that has been respected by its residents and landowners for over a century. By constrast, the long-running solar construction blight four miles east of us is illuminated all night long by klieg lights. Not only does it pose a gruesome shock, but some of the lghts are so intense that it is troublesome at times to drive past them at night. If Silverado's light trespasses beyond its property borders and deprives neighboring residents of their dark night skies, Silverado will have done tremendous damage to the Antelope Valley environment and will have radically degraded the rural atmosphere of our land. 46-3

Glare impact must be prevented. If Silverado's panels reflect solar glare into our property, not only will their company have lost valuable photons they ought to be turning to profit, but they will have adversely affected neighboring residents' homes and land possessions. 46-4

Silverado must be prevented from ruining the Valley's desert beauty. As you know, the solar-panel industry's record in the Antelope Valley is a very poor one. There is virtually no one here who does not view the industry's land impact as a hostile and threatening menace. How could this be, when solar energy is such a popular notion? Chain-link prison-style fences topped with barbed wire leave an extremely bad taste.{ It is the height of irresponsibility—not to mention contempt for future generations—to construct arrays all the ways to property lines. Planning rules should require set-backs for vegetation and permanently maintained landscaping. They should require wildlife corridors alongside and across the arrays.}{Rules should require that tall, mature trees surround arrays in order to minimize their ugliness.}{Permits should be conditioned upon *enforceable*, high standards that must be adhered 46-5 46-6 46-7

2

to over a project's entire life-span. We hope the County Planning Department will wield far more authority in Silverado's case than other agencies have brought to bear on solar arrays. 46-7 cont.

The D.E.I.R. filed with your office by the Silverado promoters does not constitute a "report" so much as it amounts to a wordy list of vague promises. In light of the solar-panel industry's regrettable behavior in this vicinity, please require Silverado to submit a new report containing very specific, quantifiable, verifiable provisions. 46-8

*

Finally, we must voice our doubts regarding the process by which the public is being invited to comment on this massive transformation of the Antelope Valley. We reside on land adjacent to the enormous bat-wing shape gouged out by "Project 4" (Figure 3-11); yet we have never been contacted by your department, the project's promoters, or the land's owners. You may be assured that had we received a copy of the package that was delivered to one of our neighbors, we certainly would have been present and vocal at the hearing that someone scheduled for Saturday afternoon of Super-Bowl Weekend. As you weigh the impact of this proposal on the land and people of this region, please consider whether the Planning Department's notice requirements were met in letter and spirit. 46-9

Sincerely,

Bernie Walp

Elizabeth Bryan

3

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
46 – Walp and Bryan	46-1	3.5, 4.4	Section 3.5, Descriptions of Proposed Projects 1 – 6, table 3-5 page 3-22 addresses the issue of animals' ability to move freely and forage. Section 4.4, Biological Resources, also addresses these issues.
	46-2	4.3	See Topical Response 2.3.6 Dust Control, presented above.
	46-3	4.1.3.3.4	Section 4.1.3.3.4, Los Angeles County Rural Outdoor Lighting District Ordinance, addresses these concerns. Also refer to mitigation measure A-5. The projects will comply with the Los Angeles County Rural Outdoor Lighting District ordinance.
	46-4	4.1.6.5.1	Please see Section 4.1.6.5.1 regarding Project lighting and potential for glare from the panels.
	46-5	4.1	Refer to Section 4.1, Aesthetics, for information on vegetative screening and visual buffers. Table 4.10-1, Consistency with Regional and Local Land Use Policies and Ordinances, addresses wildlife permeable fencing.
	46-6		Refer to Section 4.1, Aesthetics, for information on vegetative screening and visual buffers.
	46-7	MMRP	Refer to the Mitigation Monitoring and Reporting Program for information pertaining to the parties responsible to comply with and enforce each mitigation measure.
	48-8		The comment is noted and will be incorporated into the project record.
	46-9		The comment is noted and will be incorporated into the project record.

Comment Letter 47 – Lahontan RWQCB

CALIFORNIA Water Boards

EDMUND G. BROWN JR. GOVERNOR

MATTHEW RODRIQUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION

Lahontan Regional Water Quality Control Board

February 20, 2014

File: Environmental Doc Review
Los Angeles County

Carolina Blengini
Department of Regional Planning
Los Angeles County
320 Temple Street, Room 1362
Los Angeles, CA 90012
Email: specialprojects@planning.lacounty.gov

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE SILVERADO POWER WEST LOS ANGELES COUNTY, STATE CLEARINGHOUSE NUMBER 2012061068

The California Regional Water Quality Control Board, Lahontan Region (Water Board) staff received the above-referenced Draft Environmental Impact Report (DEIR) on January 6, 2014. Silverado Power is a utility scale photovoltaic (PV) developer proposing the development of six solar generating facilities in the western portion of Antelope Valley. The DEIR, prepared by the Los Angeles County Department of Regional Planning (County), was submitted in compliance with provisions of the California Environmental Quality Act (CEQA), and analyzes the six solar generating facilities individually and cumulatively. Water Board staff, acting as a responsible agency are providing these comments to specify the scope and content of the environmental information germane to our statutory responsibilities pursuant to CEQA Guidelines, California Code of Regulations, title 14, section 15096. Based on our review of the DEIR, we have determined that a combination of sediment and erosion control best management practices (BMPs) must be implemented to effectively treat post-construction storm water runoff during the life of each solar facility. 47-1

We encourage the County to continue to support and promote solar development on previously disturbed lands, including former agricultural farm lands and in urban areas. Such reuse benefits environmental resources, including hydrology and water quality, by avoiding relatively undisturbed desert areas and habitats. 47-2

Proposed Projects

Silverado Power proposes the development of six solar generating facilities in the western portion of Antelope Valley: the North Lancaster Ranch; the Western Antelope Blue Sky Ranch; the American Solar Greenworks; the Antelope Solar Greenworks; the Silver Sun Greenworks; and the Lancaster WAD. Each of the six facilities will occupy separate properties, will be constructed separately from each other, and will have an

AMY L. HOHNE, PHD, CHAIR | PATTY Z. KOUYOUMDJIAN, EXECUTIVE OFFICER
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RECYCLED PAPER

operating life of 35 years. Collectively, the facilities would cover approximately 987 acres of non-contiguous, fallow and mostly disturbed agricultural land, and would generate up to a total 172 megawatts (MW) of electricity. The associated generation-tie lines would traverse through unincorporated Los Angeles County, with a portion located within the City of Lancaster jurisdiction.

Authority

All groundwater and surface waters are considered waters of the State. Surface waters include streams, lakes, ponds, and wetlands, and may be ephemeral, intermittent, or perennial. All waters of the State are protected under California law. State law assigns responsibility for protection of water quality in the Lahontan Region to the Lahontan Water Board. Some waters of the State are also waters of the U.S. The Federal Clean Water Act (CWA) provides additional protection for those waters of the State that are also waters of the U.S.

The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) contains policies that the Water Board uses with other laws and regulations to protect the quality of waters of the State within the Lahontan Region. The Basin Plan sets forth water quality standards for surface water and groundwater of the Region, which include designated beneficial uses as well as narrative and numerical objectives which must be maintained or attained to protect those uses. The Basin Plan can be accessed via the Water Board's web site at http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml.

Comments

Our comments applicable to the construction and operation of the six solar generating facilities are outlined below.

1. Applicable sections of the DEIR titled "Lahontan Regional Water Quality Control Board Responsibility and Jurisdiction" should be revised to the following:

   The Lahontan RWQCB has jurisdiction over all "waters of the State," defined as any surface water or groundwater, including saline waters, within the boundaries of the state, under the Porter-Cologne Water Quality Control Act (a state statute). To ensure that California's isolated waters are protected, the State Water Resources Control Board (State Water Board) and the Lahontan RWQCB issue dredge and fill Waste Discharge Requirements (WDRs) that regulate discharges to "isolated" waters of the State. 47-3

2. In several sections of the DEIR, there is reference to National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit, Water Quality Order (WQO) 99-08-DWQ. WQO 99-08-DWQ was rescinded in 2009 when the current NPDES General Construction Storm Water Permit, WQO 2009-0009-DWQ, was adopted by the State Water Resources 47-4

Control Board (State Water Board). All references in the DEIR to the NPDES General Construction Storm Water Permit should cite WQO 2009-0009-DWQ, as amended. 47-4 cont.

3. All surface waters are waters of the State. Some waters of the State are "isolated" from waters of the U.S. Determinations of the jurisdictional extent of the waters of the United States are made by the United States Army Corps of Engineers (USACOE) on a project-by-project basis. We request that the Project proponent prepare a Jurisdictional Delineation Report that describes the water resources on the Project sites and outlines the methodology used to define the extent of surface water features. A copy of the Jurisdictional Delineation Report must be submitted to the USACOE for verification. 47-5

   Care should be take when delineating waters and extent of surface water features as past land uses and existing drought conditions may have disturbed or otherwise altered the hydrology on the Project sites.

   In areas where USACOE does not take jurisdiction, the Water Board generally delineates waters of the State based on distinct geomorphic flow indicators with or without clearly definable bed and bank features. In particular, the presence or absence of traditionally "riparian vegetation" is typically **not** a reliable indicator of riparian zones in arid regions of California. In these areas, often times the upland and riparian zones have similar vegetative communities with only subtle differences in plant density or species distribution serving as key indicators of riparian functions.

4. Post-construction storm water management must be considered a significant Project component, and BMPs that effectively treat post-construction storm water runoff should be included as part of each facilities operating plan. Appendix B-7 of the DEIR specifies specific permanent sediment and erosion control BMPs that will be implemented to mitigate potential water quality impacts related to storm water for each of the facility locations. Those BMPs will require routine monitoring to evaluate their effectiveness over time, and alternative BMPs implemented should monitoring indicate failure or poor performance of one or more BMPs. In addition, temporary BMPs need to be implemented for each construction site until such time that permanent BMPs are in-place and functioning. 47-6

5. Past agricultural uses on the Project sites appear to have altered natural drainage paths across and around the sites. However, streambeds and other waters of the State were identified on several of the Project sites and along the generation-tie line alignment. We request that the Project proponent avoid impacts to these surface waters by maintaining natural flow paths and micrositing power poles in areas outside of drainage channels. We understand that access roads and underground utilities are often collocated with generation-tie lines. Should it be necessary to place power poles or other infrastructure, including 47-7

roadways and underground utilities, within a streambed or other surface water, permits issued by the Lahontan Water Board may be necessary. See the "Permitting Requirements" section below. 47-7 cont.

6. The environmental document should identify the water quality standards that could potentially be violated by the Project and use these standards when evaluating thresholds of significance for Project impacts. Water quality objectives and standards, both numerical and narrative, for **all** waters of the State within the Lahontan Region, including surface waters and groundwater, are outlined in Chapter 3 of the Basin Plan. Water quality objectives and standards are intended to protect the public health and welfare, and to maintain or enhance water quality in relation to the existing and/or potential beneficial uses of the water. 47-8

7. We request that vegetation clearing be kept to a minimum and, where feasible, existing vegetation be mowed so that vegetation could more readily reestablish post-construction and help mitigate for potential storm water impacts. 47-9

8. We request that construction staging areas be sited in designated areas on or around the Project site. Construction equipment should use existing roadways to the extent feasible. 47-10

9. The environmental document should summarize the measures taken to **avoid and minimize** environmental impacts, both permanent and temporary, for each Project alternative evaluated. 47-11

10. Compensatory mitigation will be required for all unavoidable permanent impacts to surface water resources. Water Board staff coordinate all mitigation requirements with staff from other federal and state regulatory agencies, including the USACOE and the California Department of Fish and Wildlife. In determining appropriate mitigation ratios for impacts to waters of the State, Water Board staff considers Basin Plan requirements (minimum 1.5:1 mitigation ratio for impacts to wetlands) and utilizes *12501-SPD Regulatory Program Standard Operating Procedure for Determination of Mitigation Ratios*, published December 2012 by the USACOE, South Pacific Division. 47-12

11. Obtaining a permit and conducting monitoring does not constitute adequate mitigation. Development and implementation of acceptable mitigation is required. The environmental document must specifically describe the best management practices and other measures used to mitigate Project impacts. 47-13

Permitting Requirements

A number of activities associated with the proposed Project appear to have the potential to impact waters of the State and, therefore, may require permits issued by either the State Water Board or Lahontan Water Board. The required permits may include:

12. Streambed alteration and/or discharge of fill material to a surface water may require a CWA, section 401 water quality certification for impacts to federal waters (waters of the U.S.), or dredge and fill waste discharge requirements for impacts to non-federal waters, both issued by the Lahontan Water Board; 47-14

13. Water diversion and/or dewatering activities may be subject to discharge and monitoring requirements under either NPDES General Permit, Limited Threat Discharges to Surface Waters, Board Order R6T-2008-0023, or General Waste Discharge Requirements for Discharges to Land with a Low Threat To Water Quality, WQO-2003-0003, both issued by the Lahontan Water Board; and 47-15

14. Land disturbance of more than 1 acre may require a CWA, section 402(p) storm water permit, including a National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit, Water Quality Order (WQO) 2009-0009-DWQ, obtained from the State Water Board, or an individual storm water permit obtained from the Lahontan Water Board. 47-16

Please be advised of the permits that may be required for the proposed Project, as outlined above. Should Project implementation result in activities that will trigger these permitting actions, the Project proponent must consult with Water Board staff well in advance of Project construction. Information regarding these permits, including application forms, can be downloaded from our web site at http://www.waterboards.ca.gov/lahontan/. 47-17

Thank you for the opportunity to comment on the DEIR. If you have any questions regarding this letter, please contact me at (760) 241-7376 (jan.zimmerman@waterboards.ca.gov) or Patrice Copeland, Senior Engineering Geologist, at (760) 241-7404 (patrice.copeland@waterboards.ca.gov).

Jan M. Zimmerman, PG
Engineering Geologist

cc: State Clearinghouse (SCH 2012061068)
(via email, state.clearinghouse@opr.ca.gov)
California Department of Fish and Wildlife
(via email, AskR5@wildlife.ca.gov)

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Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
47 – RWQCB	47-1	3.4.8 4.8	Refer to Section 3.4.8 and Section 4.8, which indicate that a Storm Water Pollution Prevention Plan incorporating BMPs for erosion control would be prepared and approved before the start of construction. The Projects would also comply with applicable post-construction water quality standards adopted by the Regional Water Quality Control Board (RWQCB).
	47-2		The comment is noted and will be incorporated into the project record.
	47-3	Appendix 6	The requested revisions have been completed, Refer to Errata.
	47-4	Appendix 6	The requested revisions have been completed, Refer to Errata.
	47-5	4.4.3.1.5	Refer to Section 4.4.3.1.5, Jurisdictional Waters, for additional information regarding the jurisdictional delineation work performed at the project sites.
	47-6	3.4.8 4.8	Refer to Section 3.4.8 and Section 4.8, which indicate that a Storm Water Pollution Prevention Plan incorporating BMPs for erosion control would be prepared and approved before the start of construction. The Projects would also comply with applicable post-construction water quality standards adopted by the Regional Water Quality Control Board (RWQCB).
	47-7		The comment is noted and will be incorporated into the project record.
	47-8	3.4.8 4.8	Refer to Section 3.4.8 and Section 4.8, which indicate that a Storm Water Pollution Prevention Plan incorporating BMPs for erosion control would be prepared and approved before the start of construction. The Projects would also comply with applicable post-construction water quality standards adopted by the Regional Water Quality Control Board (RWQCB).
	47-9	3.4.9	Refer to Section 3.4.9 for information pertaining to site preparation. The mowing technique would be used for the ungraded array locations to preserve below grade vegetation root systems.
	47-10	3.4.9	Refer to Section 3.4.9 for information pertaining to staging areas. The substation areas will initially be utilized as the project staging areas.
	47-11	4.1-4.14 5.0	Refer to Section 4.1 through 4.14 for mitigation measures provided for the avoidance and mitigation for impacts due to the development of the project. Refer Section 5.0 for analysis of alternatives to the proposed project.
	47-12	4.4	Refer to Section 4.4, Biological Resources, for additional information pertaining to alteration of streambeds. Mitigation measure B-4 indicates “Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.”

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
	47-13	3.4.8 4.8 4.4	Refer to Section 3.4.8 and Section 4.8, which indicate that a Storm Water Pollution Prevention Plan incorporating BMPs for erosion control would be prepared and approved before the start of construction. The Projects would also comply with applicable post-construction water quality standards adopted by the Regional Water Quality Control Board (RWQCB). Additionally, mitigation measure B-4 indicates "Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code."
	47-14		The comment is noted and will be incorporated into the project record.
	47-15		The comment is noted and will be incorporated into the project record.
	47-16		The comment is noted and will be incorporated into the project record.
	47-17		The comment is noted and will be incorporated into the project record.

Comment Letter 48 – Susan Zahnter

From: susan@avopenspace.org [mailto:susan@avopenspace.org]
Sent: Friday, February 21, 2014 10:26 PM
To: Kim Szalay; Mitch Glaser; thua@planning.lacount.gov
Subject: Silverado EIR Comments Pt.I

Dear Mr. Szalay,

Thank you for your previous email. Unfortunately, I was unable to finish by Thursday evening. Nonetheless, I hope you find it possible to include our letter in the comments intended for the final Environmental Impact Review for the Silverado Projects. As you will see, the letter makes some very important discoveries and omissions that should not be overlooked when the EIR is amended. I understand there were no written comments from the California Department of Fish and Wildlife available--as they had not been submitted by the end of the comment period (we had anticipated seeing them), and hope we are extended the same grace. This collection of projects comprises such a large area, its effects are far more reaching than the EIR explains; and just to be clear, we are OPPOSED to their possible future presence in our western AV rural communities.

48-1

48-2

Any consideration of our concerns would be very much appreciated.

Please note: files are being sent in two emails. I have tried repeatedly for the last two hours to send in various ways and keep getting returns because the mailer daemon states the file size is too large.

Best Regards,
Susan Zahnter
Concerned Citizens of the West Antelope Valley

661.724.2043

Concerned Citizens of the Western Antelope Valley
Susan Zahnter, Member
P O Box 786
Lake Hughes, CA 93532
Susan@avopenspace.org

21 February 2014

SENT VIA EMAIL

Mr. Kim Szalay, Principal Regional Planner
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012
kszalay@planning.lacounty.gov

RE: Silverado Projects:
Project 1: R2011-00833 (CUP201100079, RZC201100005), North Lancaster Ranch
Project 2: R2011-00798 (CUP201100070), Western Antelope Blue Sky Ranch
Project 3: R2011-00799 (CUP201100071), American Solar Greenworks
Project 4: R2011-00807 (CUP201100076), Antelope Solar Greenworks
Project 5: R2011-00801 (CUP201100072), Silver Sun Greenworks
Project 6: R2011-00805 (CUP201100074), Lancaster WAD

Dear Mr. Szalay,

As an Antelope Valley resident and member of Concerned Citizens of the Western Antelope Valley, I would like to respond to the Environmental Impact Review (EIR) for the above referenced Silverado Projects. I have ongoing concerns regarding the adverse effects of utility-scale renewable energy projects on rural communities and residents' health; adverse effects on wildlife; and adverse effects on viewshed, that have, so far, evaded adequate solutions, are easily ascertained by poor results evidenced by current projects, in spite of adhering to minimum requirements and Best Management Practices required by Conditional Use Permits. We have found this document's mitigations to satisfy significant impacts to those areas mentioned above are inadequate. I would also assert the impacts are consistently downplayed. According to California Environmental Quality Act Guidelines, potentially significant impacts must be mitigated to a less than significant level. It seems clear after experience with other solar projects that impacts may not easily be mitigated to a level that poses no threat to the health and safety of residents, or the natural environment, including viewshed. 48-3

As previously mentioned, rural communities interspersed within large tracts of agriculturally zoned land have borne the brunt of utility-scale renewable energy projects, and concomitant undesirable effects. The Antelope Valley Areawide Plan 1986 (AVAP), discusses the preservation of rural communities, stating: "Scattered throughout the Antelope Valley are a wide variety of very low density, rural villages which are worthy of protection. Each is uniquely identifiable from its surroundings. Their residents express a sense of community pride and local identity. . . it is important to sustain these areas as unique, low-density "living environments" " (AVAP 1986, Community Recognition, Section III-1). No longer are rural communities unique "living environments" protected by the General Plan (GP) and the AVAP. Communities are made of people, not industrial-scale solar installations faking as

Regional Planning, Mr.Szalay 2 21 February 2014

farms growing "green energy." Instead, thousands of acres of chain link and barbed wire fencing intrude on the open spaces of recovering agricultural lands, as industrial commercial projects are incongruously thrust into rural communities.

Our "unique" communities are at risk from the proliferation of solar projects covering thousands of acres which contribute to the uncontrolled (despite landscape, grading, and soil treatment plans approved by Regional Planning (RP), and AVAQMD) deposition of fugitive dust into the air during wind events that occur almost daily. This puts residents at risk for respiratory disease, such as dreaded valley fever—for which there is no cure, increased asthma, and difficulties for those with chronic obstructive pulmonary disease. Policy statements in the AVAP seek to "Promote air quality that is compatible with health, well-being, and enjoyment of life. The public nuisance, property and vegetative damage, and deterioration of aesthetic qualities that result from air pollution contaminants should be prevented to the greatest degree possible"(Policy Statements, Natural Resources, V-17, Number 140). So, how compatible are industrial-scale solar projects, and their inability to prevent fugitive dust, according to this RP policy? The EIR states that the projects will be completed in phases, so ground disturbance is minimized, and that vegetation will not be removed—but mowed to six inches, and water and chemical stabilization will control the fugitive dust. The condition of native and even non-native grasslands and wildflower fields as a result of serious drought have rendered vegetation to such a fragile state, that commonly considered actions, such as the movement of vehicles across the landscape causes total destruction of vegetation essentially into dust. There have been no examples of successful avoidance of vegetative harm or re-vegetation at any solar site in the Antelope Valley. 48-4

As of yet, no dust control measures required by RP or the AVAQMD have adequately addressed this huge problem, and sounds like a potential significant impact that cannot be mitigated to less than significant. A response letter, dated June 27th, from City of Palmdale's Planning Director Richard Kite regarding the (immediately adjacent neighbor to Silverado's Projects 2,4,5) West Antelope Solar Project's Initial Study, says, "With regards to air quality, the City does not believe that stating the project will comply with the Antelope Valley (AV) Air Quality Management District (AQMD) District Rule 403 (Fugitive Dust) is sufficient to abate potential impacts of PM_{10}." Not only that, but Bret Banks, Director of the AVAQMD has says in his letter to RP, July 1st, regarding the same project, that "successful fugitive dust control and site stabilization would result in maintaining vegetation to the highest extent possible. Re-vegetation in desert environments is extremely difficult with 80 percent failure rates seen as typical, even with supplemental irrigation. Project areas which retain vegetative ground cover may (as in might, not "will") achieve stabilization without implementing reseeding efforts."

Dust storms caused by both construction and operation of industrial scale solar development are also harmful to desert plants and animals. According to the article "Wildlife Conservation and Solar Energy Development in the Desert Southwest, United States" by Jeffrey E. Lovich and Joshua R. Ennen, published in the journal "BioScience", December 2011, by the University of California Press on behalf of the American Institute of Biological Sciences, dust from solar operations has far reaching effects on remaining vegetation:

> These construction activities produce dust emissions, especially in arid environments (Munson et al. 2011), which already have the potential for natural dust emission. Dust

> can have dramatic effects on ecological processes at all scales (reviewed by Field et al. 2010). At the smallest scale, wind erosion, which powers dust emission, can alter the fertility and water-retention capabilities of the soil. Physiologically, dust can adversely influence the gas exchange, photosynthesis, and water usage of Mojave Desert shrubs (Sharifi et al. 1997). Depending on particle size, wind speed, and other factors, dust emission can physically damage plant species through root exposure, burial, and abrasions to their leaves and stems. The physiological and physical damage to plant species inflicted by dust emissions could ultimately reduce the plants' primary production and could indirectly affect wildlife food plants and habitat quality.

Thus, the dust produced by Silverado's facilities will threaten not only the health of humans and safety of transportation corridors but also will have the potential to damage native plants throughout the Western Antelope Valley, whose presence attracts thousands of visitors each year for wildflower viewing and who spend tourism dollars at local businesses. It is our contention that it will be impossible to preserve on-site vegetation during the construction phase of all portions of this project and it will not be possible to to rely upon AVAQMD's Rule 403 to adequately prevent fugitive dust. Phased earthwork will not matter if vegetation is destroyed during the construction process, and soil stabilization fails, which has been seen to happen. 48-5

Considerable discussion occurs in the EIR concerning valley fever and concludes that unattainable levels of particulate matter exist now, prior to the implementation of Silverado Projects. Agricultural operations persist in the area, as well as off-road vehicle use, contributing to the problem. The EIR states:

> " Adjacent to the proposed Projects area, much of the land is zoned for agricultural use. The Project sites are not currently active agricultural land, but agricultural activities are ongoing in nearby areas. Dust from tilled agricultural land and off-road vehicles contribute to the current level of background dust near the site. The majority of dust in the region is generated from agricultural and off-road activities and wind storms. High wind episodes, defined as when wind speed is greater than 25 miles per hour (mph), occur approximately 5 percent of the time at the Poppy Park Remote Automated Weather Station (RAWS) located just east (should be west) of the Project sites. The region is non-attainment for particulate matter, with the majority of these emissions occurring in the form of dust. At present, the local population is exposed to significant levels of dust, and the dust in the region is believed to potentially carry the *C. immitis* fungi (i.e., Valley Fever) (4.3-10).

A majority of the fugitive dust events have not resulted from agricultural operations, off road vehicle use, and wind storms. Existing solar projects have been a major source of dust, driven by windstorms, contributing to dangerous driving conditions, destruction of existing vegetation, and unhealthful air. The statement above seeks to circumvent responsibility for additional dust and valley fever by saying dust exists already, and more will not matter. Sensitive receptors list does not mention the Del Sur Elementary School (4.3.2.1.5). Every solar project that is built costs the rural communities nearby in the form of valley fever infections and other pulmonary illnesses. 48-6

The EIR states "The Solar Generating Facility would not impact any designated scenic routes." This is rubbish. I would defy anyone who tells me it is the same to look at a fully developed chain-link barbed 48-7

wire enclosed industrial-scale solar installation and tell me that it is not noticeably different than looking at open space, and frequently, dense wildflower-forb field vistas present in the western Antelope Valley. It is observed that Projects 2 and 5 will destroy wildflower fields and views of the Poppy Reserve that help qualify this road as a scenic route in the Scenic Highways Element (SHE) (1974) of the GP, identified as Route #20, along "Johnson Road-110th Street West-Avenue K from Elizabeth Lake Road to 6oth St. West." Additionally, views from Lancaster Road looking south and east will be impaired from Route #16 described as "Gorman Post Road-Lancaster Road-110th St. West from Golden State Freeway (I-5) to Avenue K" (SHE, Scenic Highway Map System Index, SHA-2, #16, #19,#20). As many as 100,000 people visit the State of California Poppy Reserve and surrounding lands each year, especially during times of exceptional bloom. They also visit other wildflower locations that coincide with scenic highways previously mentioned. At the very least hundreds, if not thousands, of cars pass the location during daily commutes on 110th Street West between Highway 138 and main east/west Avenues D, E, F, G, H, I, J, K, and also from Johnson Hill Road to and from the Lakes Communities, and Santa Clarita.

Even though the SHE was not codified, the GP expects proper evaluation of development in designated scenic areas, and includes even "proposed" scenic highways (GP, Scenic Highways, III-54).The Land Use Element details design review for Scenic Highways, in part, stating, "The proposed development should be designed to create a consistent visual relationship with surrounding development with the natural terrain and vegetation," and "structures and landscaping should complement and enhance scenic views" (GP, III-54). Through these statements, one may question the scenic viability of this project, since it will not enhance views due to its large footprint, buildings, solar arrays, drainage basins, transformer buildings, industrial chain-link/barbed wire perimeter fencing, where there is now only open space grasslands and wildflower fields. Furthermore, the GP says, "The project should protect the visual quality of highly scenic areas and views from scenic highways, roads, trails and key vantage points" (GP, Resource Protection, III-72). This would include views from Johnson Road/110th St. West, West Avenue K, and West Avenue I/Lancaster Road near the Antelope Valley Poppy Reserve. Please also note that the Antelope Valley Press, in its promotion of the City of Lancaster's Poppy Festival, published an article October 27th, 2013, in its Welcome to the Antelope Valley Magazine, that includes a map of wildflower viewing areas identifying 110th St West as such (see attached). Finally, and perhaps most importantly, the GP in its Land Use Section/Scenic Highways, III-55 states, "Commercial or industrial uses should be conducted entirely within closed buildings, except for restaurants, recreational uses and gasoline service stations." It is apparent that the Projects are inconsistent with the scenic highway design standards outlined in the GP, AVAP, and the SHE. 48-7 cont.

Worldwide, a coalition of organizations including the America Audubon Society has identified over 8,000 IBAs or Important Bird Areas. The purpose of the IBA Program is to set "science-based" priorities for habitat conservation to "promote positive action to safeguard vital bird habitats." According to the Audubon's IBA website, "IBA inventories provide a scientifically defensible method for prioritizing conservation activities and allocating limited conservation dollars to ensure the maximum benefit to birds." A subset of these 8,000 sites has been given the higher status of "Globally Important Bird Areas." These 424 worldwide sites have special status due to "global conservation concern." (http://web4.audubon.org/bird/iba/)

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

Blackbirds and other sensitive species, including the California Condor. Describing this IBA, the Audubon Society states that, "The grassland bird community is most impressive in winter, when large numbers of raptors concentrate in the area. Large flocks of Vesper Sparrows, Horned Lark and Mountain Bluebirds also occur here, widely extirpated elsewhere in the Los Angeles area. The agricultural fields, especially alfalfa, are productive year round. Winter brings Mountain Plover, whose flocks are among the last in southern California. After wet winters, nesting grassland species like Northern Harrier linger well into spring, and occasionally even breed. Swainson's Hawk maintains its southernmost breeding outpost in the state here. As this IBA lies in the path of a major spring migrant route for songbirds, these windbreaks can host hundreds of vireos, thrushes and warblers during April and May."

This leads to the EIR's interpretation of the biological value of the project area pertaining to Swainson's hawk. The assertion that the projects contain "some limited value as foraging habitat for Swainson's hawk" appears to be false. Excerpts from the "Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California," submitted to the Desert Renewable Energy Program by the California Energy Commission and Department of Fish and Game, June 2, 2010 indicate: 48-8

> Renewable energy project development could cause direct, indirect, individual, and cumulative adverse impacts to Swainson's hawks when facility construction and operation areas (such as wind turbines, power plants, solar panels and tower sites, access roads, staging areas, and pulling/splicing locations) occur in areas where hawks are present. Potential impacts include loss of foraging habitat and disruption of breeding activities due to increased dust, noise, and human presence. Direct mortality from vehicle strikes and collisions with wind turbines is also known to occur. Construction disturbance during the breeding season and habitat loss could cause incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment (2).
>
> Additionally, "A substantial reduction in numbers or habitat of a rare, threatened, or endangered species would be considered a significant impact under CEQA. Potentially significant impacts may result from activities that cause nest abandonment, loss of nest trees, loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), or direct mortality. Due to the Swainson's hawk's known preference for areas of low vegetation that support abundant prey, such as grasslands or alfalfa fields (Bechard 1982, Babcock 1995), the Department considers conversion of foraging areas to renewable energy power plant facility sites to be habitat loss. For example, solar panel arrays are expected to eliminate most or all foraging potential. Significant habitat loss may result from individual projects and cumulatively, from multiple projects" (2).

These two paragraphs indicate the project sites are hawk foraging habitat, and they appear to be within approximately five miles of a nest <u>occupied in 2010 near Avenue D and 110th Street West</u> described by Element Power Wildflower Green Energy Farm Biological Constraints Analysis and attached map (Appendices, Biota Report, Initial Study, 18, 30) and <u>a known active nest site directly adjacent to Project 5 along 120th Street West</u>. According to the California Department of Fish and Wildlife (CDFW) any nest is considered to be active if occupied once within the last five years, and specifically, 48-9

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"Impacts to suitable habitat or individual birds within a five-mile radius of an active nest will be considered significant and to have the potential to "take" Swainson's hawks as that term is defined in §86 of the Fish and Game Code" (Swainson's Hawk Survey Protocol, 3). The CDFW Protocol further states "Construction disturbance during the breeding season and habitat loss could cause incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment." Not only that, the protocol identifies the Antelope Valley's ten breeding pairs as especially sensitive to renewable energy development, stating: 48-9 cont.

The current land uses in the Antelope Valley area support approximately

> 10 breeding pairs. This area comprises the southernmost edge of the known breeding range for this species in California. The small number of breeding Swainson's hawks in the Antelope alley and the potential isolation from other Swainson's hawk populations makes the Antelope Valley population particularly susceptible to extirpation. Swainson's hawks have high nest site fidelity, meaning they return to the same site year after year (Estep 1989, Woodbridge et al. 1995) This may limit exchange of individual birds between distant breeding groups (Hull et al. 2007). Hull et al. (2007) found evidence suggesting that the Central Valley population has had little recent genetic exchange with other populations east of the Sierra Nevada.
> Due to the geographical isolation of the Antelope Valley Swainson's hawk population from other breeding populations, together with the species' high site fidelity, it is reasonable to infer that rapid re-colonization of the Antelope Valley would be unlikely if nesting pairs were lost. Given these facts, the California Department of Fish and Game (Department) would consider impacts to breeding pairs to be potentially significant because they may cause the population to become less than self-sustaining (2).

The assertion that "some limited value as foraging habitat for Swainson's hawk" exists on all proposed Silverado Projects is refuted by the existence of the nesting sites previously mentioned. The CDFW's Swainson's hawk Survey Protocol, June 20, 2010 says, "Due to the Swainson's hawk's known preference for areas of low vegetation that support abundant prey, such as grasslands or alfalfa fields (Bechard 1982, Babcock 1995), the Department considers conversion of foraging areas to renewable energy power plant facility sites to be habitat loss." Furthermore, a minimum of 2:1 ratio of mitigation land is required for infringement on their habitat; more should be considered for destruction of nesting and nesting foraging areas. 48-10

Loss of Burrowing owl habitat is certain with the implementation of the these projects. Successful owl burrows have been observed immediately adjacent to project 2's north boundary on West Avenue J, east of 110th Street West, along a proposed gen-tie line, as indicated in West Antelope Solar's Mitigated Negative Declaration. Why biologists for this project failed to identify those owls is curious. Even though no detection of owls on project 2 is claimed by the EIR, occupancy of burrowing owl habitat is confirmed at a site when at least one burrowing owl, or its sign at or near a burrow entrance, is observed within the last three years (Staff Report on Burrowing Owl Mitigation, CDFW, 2012). 48-11

Comments by biologist and raptor expert, Dr. K. Shawn Smallwood, in his letter dated 16 November 2013 (from the West Antelope Solar MND) state, "Burrowing owl habitat will be entirely destroyed by the West Antelope Solar Energy Project within the project boundary and out to about 150 m from the

boundary." There is then, considerable reason to believe the same to be true of the Silverado Projects. The identification of artificial burrows on site, unoccupied, show the difficulty and unpredictable nature of relocating owls. According to Dr. Smallwood, burrowing owls dislike nesting areas "amidst tall plants or tall structures." They will not repopulate areas within solar arrays, or within approximately 500 feet of such areas. See attached listing of wildlife likely to be seen on or near project properties-- it is more expansive than those provided in the EIR and is in line with what EIR biological evaluations should have revealed. 48-12

Moreover, Dr. Peter Bloom, in his 2 December 2003 letter to CDFW for listing Burrowing Owls as threatened, has this to say:

1. Passive relocation usually succeeds only in displacing the owls. Even if as prescribed in the Guidelines 6.5 acres are preserved for each pair, once the project development is completed and is later surrounded by other developments, whatever acreage has been set aside becomes useless for owl conservation.
2. Given the recently published (Gervais et al. 2003) results of radio telemetry studies of BUOWs in the Central Valley, it would appear that the 150-m survey buffer area around a project site is inadequate and will need to be expanded to at least a 600-m survey buffer area in order to adequately address the needs of both on and off-site breeding pairs. Since male burrowing owls often move greater than 1,000 m (Gervais et al. 2003) when foraging in the breeding season, consideration for off-site foraging habitat affected by development, particularly in agricultural areas should be included in assessments. According to Gervais et al. (2003) habitat improvements should be planned within 600m of the nest site for breeding burrowing owls to maximize foraging efficiency.
3. Passive relocation should only be used as a mitigation technique when the BUOW nesting territories in question are directly adjacent to permanently protected lands.
4. A more appropriate term for the passive relocation of BUOW pairs is eviction (Trulio 1995), meaning the pairs have no "home", no protective burrows to escape to. While artificial burrows are required as part of the process, there is no guarantee that the owls will find the new burrows once evicted, and adequate monitoring and maintenance of the artificial burrows almost never occurs.

Even if on site mitigation were possible, the construction process and the buffer requirements to active nests or burrows would most likely be ineffective in the pile-driving process during construction described in the EIR. Additional effects would include loss of ground squirrels, whose burrows provide homes for owls. The project may use herbicides, rodenticides and pesticides that would, without doubt, eliminate any habitat remaining on or nearby the projects. Additionally, the figures (such as Figure 4, Appendix B-3, page 1050/4833) provided for location identified species do not show *all* projects in the region; it would be beneficial to the reader to understand the whole picture as pertains to renewable energy development in the western Antelope Valley area and more properly evaluate the effects of these projects. 48-13

Eradication of ground squirrels on site will reduce availability of habitat; and the use of rodenticides, pesticides, and herbicides may eradicate the owls and other raptors near the project site. There is no discussion in the MND regarding the use of such chemicals, thence, no review of potentially deadly poisons to wildlife. Pile-driving equipment may also affect burrows considered potential habitat, and could cause burrow collapse, eliminating possibility of habitation by owls on the project's proposed on 48-14

site mitigation land. Even though no detection of owls on the north site burrows was found, occupancy of burrowing owl habitat is confirmed at a site when at least one burrowing owl, or its sign at or near a burrow entrance, is observed within the last three years (Staff Report on Burrowing Owl Mitigation, CDFW, 2012,). There is no record of surveys that occurred within the last three years, except for the previously mentioned West Antelope Solar, as a project in close proximity to two of the Silverado projects. Should relocation and mitigation of loss of nesting habitat and foraging areas prove unsuccessful, subsequent mitigation should be discussed as part of ongoing monitoring and additional alternative habitat should be provided. There is no clear evidence presented that mitigation is successful in replacing lost habitat and that it will be used by displaced species. 48-14 cont.

The EIR does not consider loss of foraging area pertaining to tri-colored blackbirds, a California Species of Special Concern, well known to the area because of several nesting locations within a few miles of these projects. During spring seasons with average rainfall when the grasslands support large numbers of insects, especially grasshoppers, tri-colors can be seen carrying them back to their nestlings. These grasshoppers undoubtedly support nesting raptors and their broods as well It would be a mistake to allow the EIR to miss reporting the active and abundant wildlife normally present during non-drought years. The document needs to reconsider the value of all affected lands within the proposed projects' purview, so residents, concerned citizens and the planning office may understand the overall cumulative effects of these and other large utility-scale renewable energy projects. All of the special-status species discussed in the EIR and touched upon in this letter serve as "flagship species" of our Antelope Valley. Their protection really does signify quality of life for not only all other species—from soil fungi and bacteria; wildflowers, herbaceous plants, and trees, to birds, small and large mammals, reptiles; but for human inhabitants as well. 48-15

All in all, the actual mitigation of impacts to rural communities and their unique character goes unanswered. At what point do the thousands of acres of utility-scale solar projects change the "living environments" of our Western Antelope Valley and render communities virtually devoid of the special and common species we enjoy as we are surrounded by industrial development? Planning documents talk much about project compatibility in order to protect areas from disturbing effects of improperly placed commercial and industrial developments, but Regional Planning seems to do little in supporting those existing planning goals and objectives that would slow, or even eliminate, the onslaught of so-called "green energy" projects causing serious impact to our communities. Consider, too, the inability of accepted best practices and modern soil stabilizers to contain the fugitive dust that blows from their projects. Threats to human health, like valley fever, can neither be ignored nor mitigated easily. Finally, the CDFW protocols recommended mitigation measures and preservation of mitigation land extend beyond what is not clearly discussed in the EIR for significant impacts to wildlife and residents. 48-16

Sincerely,

Susan Zahnter

Susan Zahnter
Member, CCWAV

CC: Supervisor Michael Antonovich, Field Deputy Norm Hickling, Planning Director Richard Bruckner, Planning Supervisor Mitch Glaser, Renewable Energy Policy Planner Thuy Hua

Regional Planning, Mr. Szalay 9 21 February 2014

This list is easily applied to the Silverado Projects and many here do not appear or are they mentioned in the EIR.

Table 1. Special-status species of wildlife that could potentially occur at, or travel through, the proposed West Antelope Solar Project site.

Common name	Scientific name	Status[1]	Occurrence likelihood	
			Neg Dec	Smallwood
Pallid bat	*Antrozous pallidus*	CSC	Not expected	Possible
Townsend's western big-eared bat	*Plecotus t. townsendii*	CSC	Not expected	Possible
Western mastiff bat	*Eumops perotis*	CSC	No mention	Probable
Long-eared myotis	*Myotis evotis*	WBWG	No mention	Probable
Fringed myotis	*Myotis thysanodes*	WBWG	No mention	Probable
Long-legged myotis	*Myotis volans*	WBWG	No mention	Probable
Yuma myotis	*Myotis yumanensis*	CSC	No mention	Probable
American badger	*Taxidea taxus*	CFP	Maybe	Probable
Tehachapi pocket mouse	*Perognathus alticolus*	CSC	No mention	Possible
Mountain plover	*Charadrius montanus*	BCC, BSSC2	Not expected	Possible
Turkey vulture	*Cathartes aura*	CDFG 3503.5	Observed	Probable
California condor	*Gymnogyps californicus*	FE, CE	No mention	Possible
Golden eagle	*Aquila chrysaetos*	CFP, BGEPA	No mention	Probable
Northern harrier	*Circus cyaneus*	SSC3	Maybe	Certain
White-tailed kite	*Elanus leucurus*	CFP	No mention	Probable
Cooper's hawk	*Accipiter cooperi*	CDFG 3503.5	No mention	Probable
Sharp-shinned hawk	*Accipiter striatus*	CDFG 3503.5	No mention	Probable
Ferruginous hawk	*Buteo regalis*	SSC	Observed	Certain
Red-tailed hawk	*Buteo jamaicensis*	CDFG 3503.5	No mention	Certain
Red-shouldered hawk	*Buteo lineatus*	CDFG 3503.5	No mention	Probable
Swainson's hawk	*Buteo swainsoni*	CT	Maybe	Certain
American kestrel	*Falco sparverius*	CDFG 3503.5	No mention	Probable
Merlin	*Falco columbarius*	CDFG 3503.5	No mention	Possible
Prairie falcon	*Falco mexicanus*	CDFG 3503.5	Observed	Probable
Peregrine falcon	*Falco peregrinus*	CE, CFP	No mention	Possible
Barn owl	*Tyto alba*	CDFG 3503.5	No mention	Probable
Great-horned owl	*Bubo virginianus*	CDFG 3503.5	No mention	Probable
Short-eared owl	*Asio flammeus*	SSC3	Not expected	Possible
Western burrowing owl	*Athene cunicularia*	SSC2, FCC	Observed	Certain

California horned lark	*Eremophila alpestris actia*	CBRL	No mention	Certain
Loggerhead shrike	*Lanius ludovicianus*	SSC2 (breeding)	Maybe	Certain
LeConte's thrasher	*Taxostoma lecontei*	SSC1	Not expected	Unlikely
Tricolored blackbird	*Agelarius tricolor*	SSC1	Maybe	Possible
Western pond turtle	*Emys marmorata*	CSC	No mention	Unlikely
Desert tortoise	*Gopherus agazzassii*	FT, CT	Not expected	Possible
Silvery legless lizard	*Anniella pulchra pulchra*	SSC	Not expected	Possible
Coast horned lizard	*Phrynosoma blainvillii*	SSC	Not expected	Possible

[1] *Listed as FE = federal endangered, FT = threatened, FCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, BGEPA = Bald and Golden Eagle Protection Act, CE = California endangered, CT = California threatened, CSC = California species of special concern (not threatened with extinction, but rare, very restricted in range, declining throughout range, peripheral portion of species' range, associated with habitat that is declining in extent), CFP = California Fully Protected (CDFG Code 4700), CDFG 3503.5 = California Department of Fish and Game Code 3503.5 (Birds of prey), and SSC2 and SSC3 = California Bird Species of Special Concern priorities 2 and 3, respectively (Shuford and Gardali 2008), CBRL = California Bird Responsibility List, WBWG = Western Bat Working Group listing as moderate or high priority.*

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
48 – Zahnter	48-1		The comment is noted and will be incorporated into the project record.
	48-2		The comment is noted and will be incorporated into the project record.
	48-3	2.1 2.4	Section 2.1 of the EIR addresses the purpose of the California Environmental Quality Act and the EIR, and Section 2.4 of the EIR addresses the scope of analysis that is included in the EIR per CEQA guidelines.
	48-4	4.3 4.4	The projects will utilize best management practices to re-established pre-existing vegetation or establish drought tolerant, native, or native compatible vegetation approved by the County biologist. Refer to Section 4.3, Air Quality, and Section 4.4, Biological Resources.
	48-5	4.3.7 3.4.9	See Topical Response 2.3.6 Dust Control, presented above.
	49-6	4.3	See Topical Response 2.3.6 Valley Fever/Dust, presented above.
	48-7	4.1	See Topical Response 2.3.1 Visual Simulations/Aesthetics, presented above.
	48-8	4.4	See Topical Response 2.3.9 Biological Resources, presented above.
	48-9	4.4	See Topical Response 2.3.9 Biological Resources, presented above.
	48-10	4.4	See Topical Response 2.3.9 Biological Resources, presented above.
	48-11	4.4	See Topical Response 2.3.9 Biological Resources, presented above.
	48-12	4.4	See Topical Response 2.3.9 Biological Resources, presented above.
	48-13	4.1 thru 4.13	The EIR addresses cumulative impacts in each subsection of Section 4.0, as required under CEQA, using the list of cumulative projects developed in coordination with the County. The list of cumulative projects evaluated for this Project includes solar, wind, residential, and commercial development in LA County and the City of Lancaster.
	48-14	4.4	See Topical Response 2.3.9 Biological Resources, presented above.
	48-15	4.4	See Topical Response 2.3.9 Biological Resources, presented above.
	48-16		The comment is noted and will be incorporated into the project record.

Comment Letter 49 – Krisy Reuter

2/13/14

Re: Silverado Solar Plants - Project 3 on 70th W. and Ave. G-8

RECEIVED
FEB 20 2014
BY:

To: Kim Sczalay

Co. of L.A. Dept. of Regional Planning
320 West Temple St., Rm 1348
Los Angeles, CA 90012

I'd like to have the following questions answered, which myself and others asked at the meeting on 2/1/14 at the Lancaster City Library: 49-1

1. How specifically will the extreme noise disruptions be addressed? 49-2

2. How specifically will the extreme obstruction-of-view and eye-soar issues be addressed? 49-3

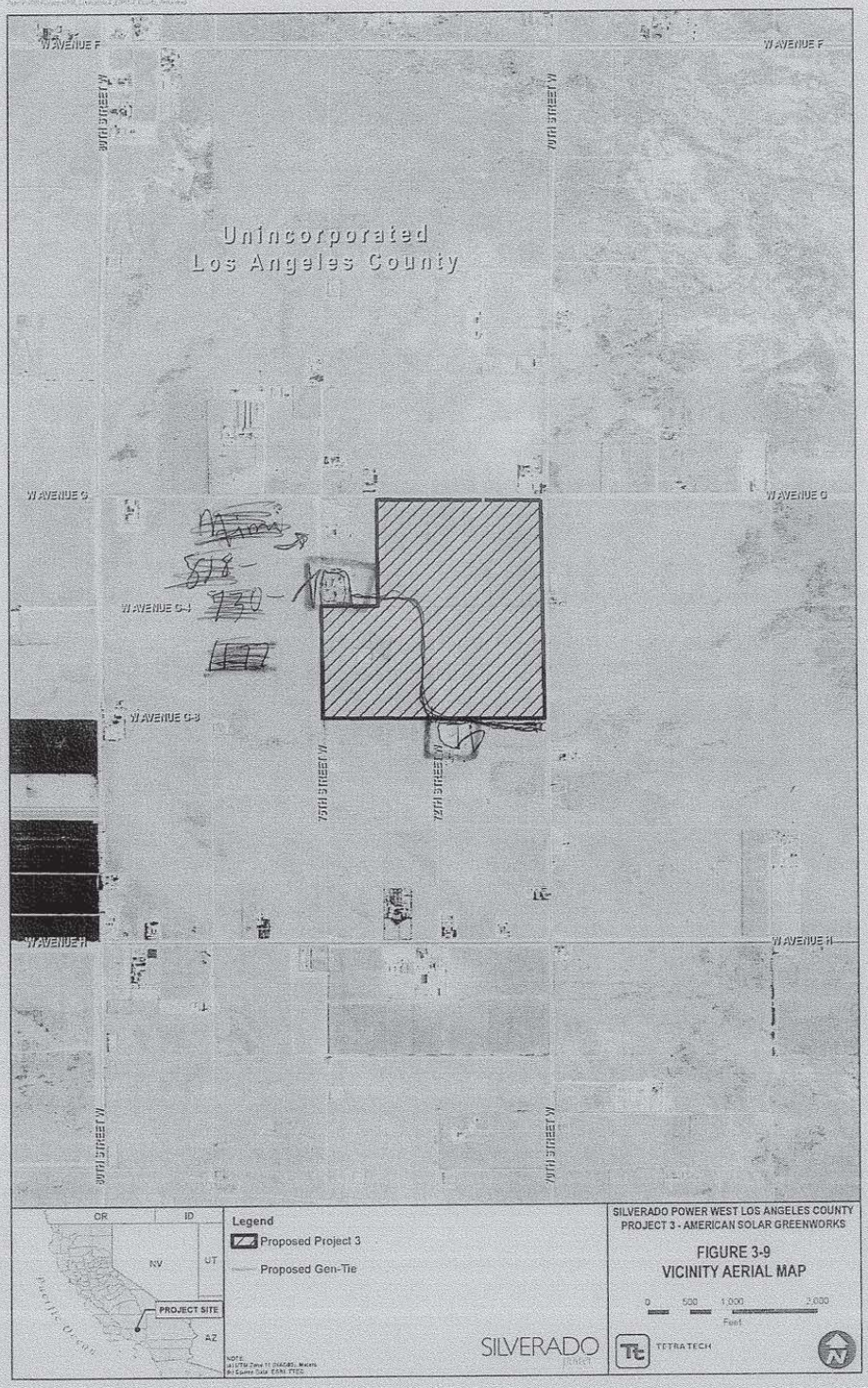
3. How specifically will the current road that is 72nd St. W. and it's current access to G-4 be addressed when demolished and removed? 49-4

*4. How specifically will physical safety, as it related to my 2 children and I, be addressed when our solitude and anonymity will be altered and compromised? 49-5

*5. How specifically will health safety, as it relates to the extreme dust and air pollution be addressed? 49-6

*6. How specifically will health safety, as it relates to the electro-magnetic-currents similar to electric power plants be addressed? 49-7

Sincerely,
Krisy Reuter
46330 72nd St. W.
Lanc., Ca 93536-8115
(I'm the home this project 3 sits on top of, to the South and my parents are the home this project 3 sits on top of, to the West. – See attached map)
* - Most important


W AVENUE F
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90TH STREET W
70TH STREET W
Unincorporated
Los Angeles County
W AVENUE G
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W AVENUE G-8
75TH STREET W
72TH STREET W
W AVENUE H
W AVENUE H
90TH STREET W
70TH STREET W
OR
ID
NV
UT
PROJECT SITE
AZ
Legend
Proposed Project 3
Proposed Gen-Tie
SILVERADO
TETRA TECH
SILVERADO POWER WEST LOS ANGELES COUNTY
PROJECT 3 - AMERICAN SOLAR GREENWORKS
FIGURE 3-9
VICINITY AERIAL MAP
0 500 1,000 2,000
Feet

SILVERADO

Ryan Galeria, P.G.
Project Manager

2 Embarcadero Center
Suite 410
San Francisco, CA 94111

415-692-7726 direct
415-933-7949 mobile
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SilveradoPower.com

Ryan@SilveradoPower.com

Department of Regional Planning

Planning for the Challenges Ahead

Richard J. Bruckner
Director

NOTICE OF COMPLETION AND AVAILABILITY
DRAFT ENVIRONMENTAL IMPACT REPORT
NOTICE OF HEARING EXAMINER PUBLIC HEARING FOR THE
SILVERADO POWER WEST, LOS ANGELES COUNTY PROJECT
STATE CLEARINGHOUSE NO. 2012061068
COUNTY PROJECT NOs. R2011-00833, 00798, 00799, 00807, 00801, 00805
CONDITIONAL USE PERMIT NOs. 201100079, 70, 71, 76, 72, 74
ZONE CHANGE NO. 201100005
ENVIRONMENTAL REVIEW NO. 201100109

The County of Los Angeles, acting in the capacity of Lead Agency under the California Environmental Quality Act ("CEQA") and the County Environmental Document Reporting Procedures and Guidelines, Chapter III, Section 304, has filed a "Notice of Completion and Availability" of a Draft Environmental Impact Report ("DEIR") for the **Silverado Power West, Los Angeles County Project ("Projects")**. This DEIR has been prepared in accordance with, and pursuant to CEQA, Public Resources Code Sections 21000-21177, and the "Guidelines for California Environmental Quality Act" (State CEQA Guidelines), California Code of Regulations, Title 14, Chapter 3, Sections 15000-15387.

PROPOSED PROJECTS AND SITE LOCATIONS
The Projects are located in the Antelope Valley in unincorporated Los Angeles County and are west of the Antelope Valley Freeway (State Route 14). All six Project sites are between 30th Street West and 120th Street West. On the north-south axis, the sites are between Avenue K to the south and Avenue A to the north. The Projects range from 38.49 acres to 256 acres in size and from 5 MW to 52 MW in solar generation capacity.

Silverado Power is a utility scale solar photovoltaic ("PV") developer proposing the development of six solar PV Projects in the western portion of Antelope Valley, located in the northern portion of unincorporated Los Angeles County. Each of the six solar PV Projects is planned for separate properties, is being developed separately, and would be analyzed individually and cumulatively in this DEIR for all phases of each project including planning, construction, and operation according to the requirements of CEQA in Section 15161.

The Projects to be developed are given below by Project name, Project number, assessor's parcel number ("APN"), acres, and megawatts ("MW"):

Project 1 North Lancaster Ranch – Project No. R2011-00833; APNs 3262-001-006 and 3262-001-006; 240 acres; 20 MW

Project 2 Western Antelope Blue Sky Ranch – Project No. R2011-00798; APN 3267-015-001; 157 acres; 40 MW

Project 3 American Solar Greenworks – Project No. R2011-00799; APNs 3268-018-035, 3268-018-002, and 3268-018-036; 135.61 acres; 35 MW

Project 4 Antelope Solar Greenworks – Project No. R2011-00807; APNs 3218-002-018, 3218-002-023, 3203-002-015, 3203-002-017, 3218-001-002, 3218-001-003, 3218-001-004, 3203-002-011, 3203-002-012, 3203-002-013, 3203-002-014, and 3219-019-011; 256 acres; 52 MW

Project 5 Silver Sun Greenworks – Project No. R2011-00801; APNs 3267-003-001, 3267-003-002, and 3267-003-003; 160 acres; 20 MW

Project 6 Lancaster WAD – Project No. R2011-00805; APN 3115-010-004; 38.49 acres; 5 MW

320 West Temple Street ▪ Los Angeles, CA 90012 ▪ 213-974-6411 ▪ Fax: 213-626-0434 ▪ TDD: 213-617-2292

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
49 – K. Reuter	49-1		The comment is noted and will be incorporated into the project record.
	49-2	4.11	Refer to Section 4.11, Noise, for analysis of noise impacts.
	49-3	4.1	See Topical Response 2.3.1 Visual Simulations/Aesthetics, presented above.
	49-4	4.12	Neither 72nd Street West nor Avenue G-4 are dedicated or recognized by the County of Los Angeles where their locations intersect the project site.
	49-5		See Section 4.12 Public Services for further analysis.
	49-6		See Topical Response 2.3.7 Valley Fever/Dust, presented above.
	49-7		The design, installation, and operation of the facility will comply with all applicable local, state, and national electrical codes which ensure the safety and protection of local residents and the public at large. Additionally, all electrical design and installation will be subject to review and inspection by Los Angeles County.

Comment Letter 50 – Brian Marsh

From: Brian Marsh <backpackeroven@yahoo.com>
Date: February 20, 2014 at 4:19:59 AM PST
To: "sdea@planning.lacounty.gov" <sdea@planning.lacounty.gov>
Subject: Silverado Solar
Reply-To: Brian Marsh <backpackeroven@yahoo.com>

I am a resident of the Antelope Acers area. I just found out about the plans for the solar plant on 90th street.

My questions are:
What is going to happen to all the water runoff from these panels? 50-1
What about the dust problem that we are going to have due to removal of all the vegetation? 50-2
Are acres and acres of Glass panels going to produce more heat in the atmosphere? 50-3

Brian E. Marsh
661-510-5205
Fax: 661-728-0227

Comment Letter Number	Comment Number	Section Number in EIR	Response to Comment
50 – Marsh	50-1	4.9	Section 4.9, Hydrology and Water Quality, addresses these concerns.
	50-2	4.3	Please see topical response 2.3.6 dust control.
	50-3	4.7	Section 4.7, Greenhouse Gas and Climate Change, addresses these concerns.

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3.0 Errata

Minor text changes, additions, or modifications have been made to the DEIR for the proposed Silverado Power West, Los Angeles County Project. The text revisions presented herein have been made in response to staff analysis and comments received as part of the public review and hearing process, as well as to address mitigation measure refinements.

Due to the minor nature and extent of the text changes that are required and presented in this section, the changes are provided individually rather than in a reproduction of the entire DEIR. The presentation of revisions to the DEIR is consistent with California Environmental Quality Act Guidelines Section 15132 detailing required FEIR contents.

Amended text for the DEIR is outlined by section and page number. Changes to the text will be shown with underlining and deletion of text will be indicated by ~~strikethrough~~.

Section 1.0 Executive Summary

Section 1.3 Areas pf Controversy and Issues to be Resolved, Page 1-3, 3rd paragraph, the following paragraphs were inserted.

> <u>"Grading shall be limited to only the access roads, substations, tanks, inverter pads, or basins. Work within the existing vegetation where the solar panels are proposed shall be conducted with minimal disturbance and the operator shall take all necessary precautions to not use vehicles or machineries for grading or alter the existing grade in these areas."</u>
>
> <u>"When vehicles or machineries are deemed necessary for solar field installation work, appropriate ground-protection practices (such as construction mats, stabilizers, or established vegetation) shall be utilized for both dust suppression and to ensure that the vehicles or machineries are compatible with continued and future vegetation growth to the satisfaction of Public Works. The project's biologist shall confirm that construction practices are compatible with continued and future vegetation growth. Any grading, disking, and scraping to access roads, walkways, required basins and berms shall be permanently stabilized with an earth-stabilizing product that is acceptable to the Department of Public Works, in cooperation with the Departments of Regional Planning and Public Health, to prevent fugitive dust."</u>

Section 1.5, Summary of Environmental Impacts, Mitigation Measures, and Resulting Levels of Significance, Item AQ-10, Page 1-11 references 5.6.5 but there should be no reference because the Dust Control Plan is submitted prior to the grading permit approval.

Environmental Impact Summary	Mitigation Measure	Resulting Level of Significance
The analysis assumed that all construction activities would comply with AVAQMD Rule 403 regarding the control of fugitive dust. However, as the project has committed to the mitigation measures listed in Section 4.3.7, Mitigation Measures, PM_{10} and $PM_{2.5}$ emissions will be reduced to below the significance thresholds. Project operations would involve limited vehicle travel within the solar PV array field to periodically wash the PV panels, to control vegetation and maintain fuel breaks, and to maintain and inspect Project facilities. These operational-phase activities can cause fugitive dust emissions. The owner, or its contractors, would be required to follow the fugitive dust control strategy outlined in the Dust Control Plan that would be prepared for the Projects. ~~(refer to Section 5.6.5).~~	**AQ-10** Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.	Less than significant with mitigation

Section 4.3 Air Quality

Section 4.3.3.3.2, The Los Angeles County Code (Chapter 12.32.010) requires permits for activities on areas of 2.5 acres or more that may generate harmful dust level within a defined area of the Antelope Valley (Los Angeles County 1991), Antelope Valley Air Quality Management District, AVAQMD Rule 403 – Fugitive Dust, Page 4.3-17 references 5.6.5 but there should be no reference because the Dust Control Plan is submitted prior to the grading permit approval.

> Project operations would involve limited vehicle travel within the solar PV array field to periodically wash the PV panels, to control vegetation and maintain fuel breaks, and to maintain and inspect Project facilities. These operational-phase activities can cause fugitive dust emissions. The owner, or its contractors, would be required to follow the fugitive dust control strategy outlined in the Dust Control Plan that would be prepared for the Projects ~~(refer to Section 5.6.5).~~

Section 4.4 Biological Resources

Section 4.4.3.3.4, Special Status Species, references Project 2 but it should be Project 3.

The most recent records of the California Department of Fish and Wildlife California Natural Diversity Database (CNDDB 2013) and the California Native Plant Society's Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPSEI 2011) were reviewed for the quadrangles containing and surrounding Project 3 and included Little Butte, Rosamond, and Del Sur, California USGS 7.5 minute quadrangles).

According to the literature review, 18 special status plant and 30 special status wildlife species were documented to occur within the vicinity of Project 3. This list included 10 wildlife species that are federal or state-listed Endangered or Threatened. Of the 18 special status plant species listed in the literature review for Project ~~2~~3, none are federal or state-listed Endangered or Threatened.

Section 4.9 Hydrology and Water Quality

Additional recycled water purveyors was added as options for the Projects 1 – 6.

> "Under this option, the Applicant would purchase recycle waste water. Potential recycle water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. This option would be carried out in a manner that would be consistent with the Adjudication Agreement. A ~~The~~ point of delivery c~~w~~ould be located at West Avenue H at Division Street. Water trucks would deliver water to the ingress/egress point(s) of each Project site, along the route with the lowest impact or least distance travelled. A "Will Serve" letter from the City of Lancaster is provided in Appendix B-13."

Section 4.10 Land Use and Planning

Section 4.10.2.2.2 Zoning Designations

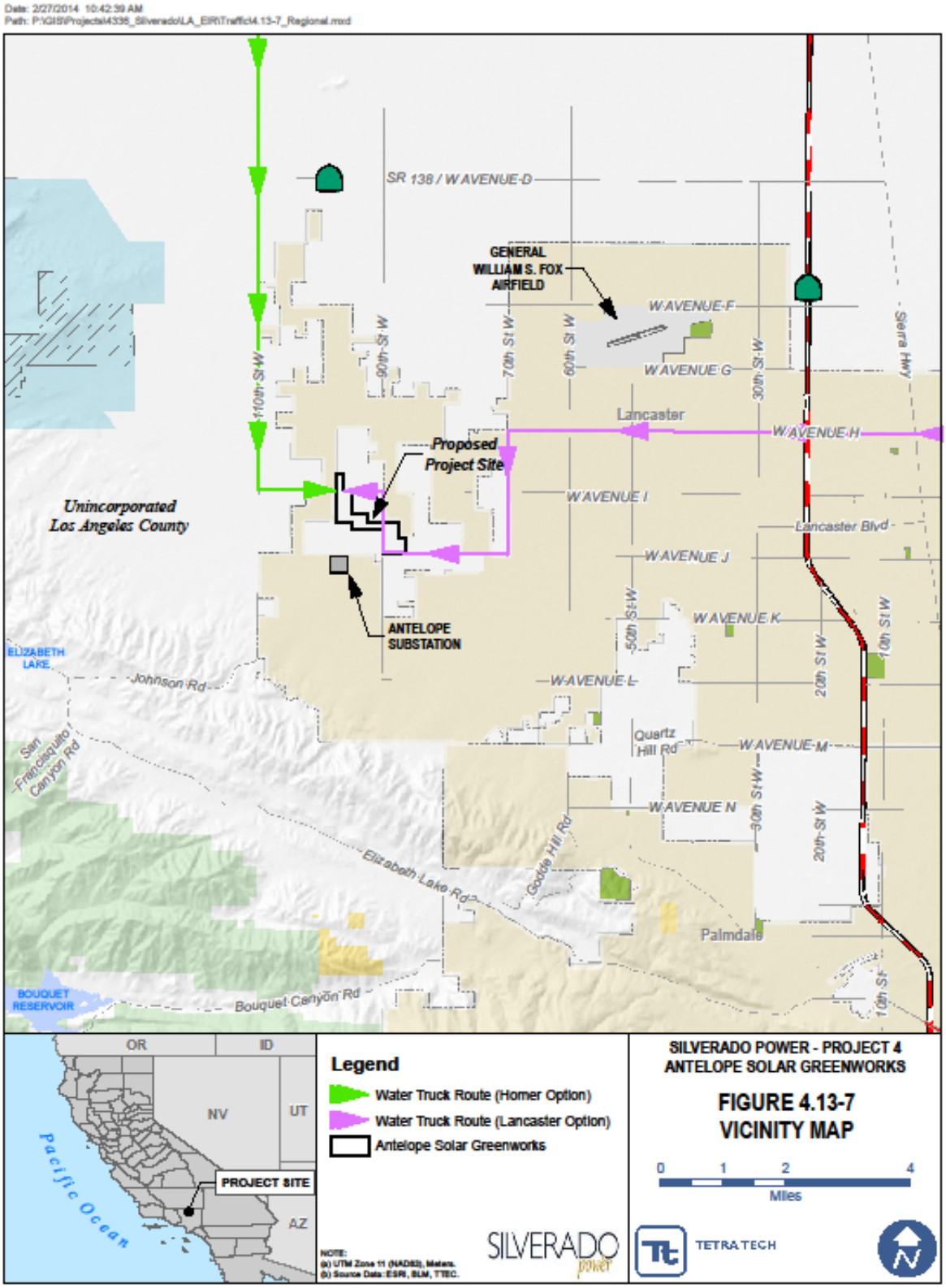
> The zoning west of Project 1 is A-2-2 not R-1.
>
> As shown in Figure 4.10-2, Project 1 and its gen-tie line are zoned in the County as Light Agriculture (A-1), which does not permit electric generating plants within this zone. Since Project 1 and its gen-tie line are located within Zone A-1, a zone change from Zone A-1 to A 2 (Heavy Agriculture) will be required to construct and operate the SGF. Adjacent properties that are located north, east, and south of Project 1 are assigned Zone A-1 zoning designation; adjacent property located west of Project 1 is zoned ~~R-1~~ A-2-2. The current use of the surrounding properties includes vacant land and agricultural fields.

Section 4.13 Transportation and Traffic

Section 4.13.2.1.4 Project 4

> The water truck route from the City of Lancaster option was revised in the figures to match the text description.

Page 4.13-7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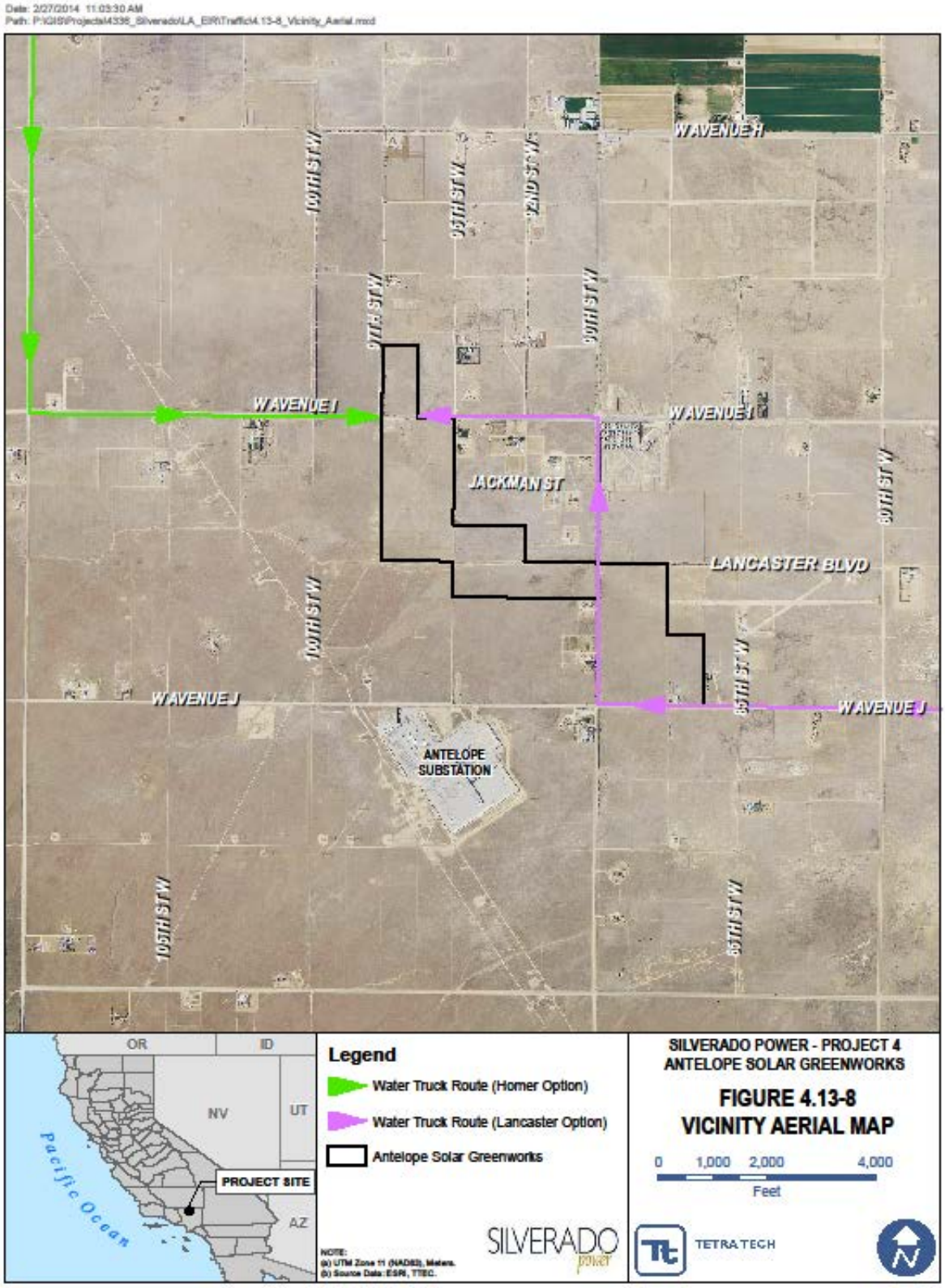
SR 138 / W AVENUE D
GENERAL WILLIAM S. FOX AIRFIELD
W AVENUE F
W AVENUE G
W AVENUE H
W AVENUE I
W AVENUE J
W AVENUE K
W AVENUE L
W AVENUE M
W AVENUE N
110th St W
90th St W
70th St W
60th St W
50th St W
30th St W
20th St W
10th St W
Sierra Hwy
Lancaster
Lancaster Blvd
Proposed Project Site
Unincorporated Los Angeles County
ANTELOPE SUBSTATION
ELIZABETH LAKE
Johnson Rd
San Francisquito Canyon Rd
Quartz Hill Rd
Godde Hill Rd
Elizabeth Lake Rd
Palmdale
BOUQUET RESERVOIR
Bouquet Canyon Rd
OR
ID
NV
UT
AZ
Pacific Ocean
PROJECT SITE
Legend
Water Truck Route (Homer Option)
Water Truck Route (Lancaster Option)
Antelope Solar Greenworks
NOTE:
(a) UTM Zone 11 (NAD83), Meters.
(b) Source Data: ESRI, BLM, TTEC.
SILVERADO POWER
SILVERADO POWER - PROJECT 4
ANTELOPE SOLAR GREENWORKS
FIGURE 4.13-7
VICINITY MAP
0 1 2 4
Miles
TETRA TECH

Page 4.13-8


Date: 2/27/2014 11:03:30 AM
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W AVENUE H
100TH ST W
95TH ST W
92ND ST W
90TH ST W
W AVENUE I
W AVENUE I
JACKMAN ST
60TH ST W
LANCASTER BLVD
100TH ST W
85TH ST W
W AVENUE J
W AVENUE J
ANTELOPE SUBSTATION
105TH ST W
85TH ST W
OR
ID
NV
UT
AZ
Pacific Ocean
PROJECT SITE
Legend
Water Truck Route (Homer Option)
Water Truck Route (Lancaster Option)
Antelope Solar Greenworks
NOTE:
(a) UTM Zone 11 (NAD83), Meters.
(b) Source Data: ESRI, TTEC.
SILVERADO power
SILVERADO POWER - PROJECT 4
ANTELOPE SOLAR GREENWORKS
FIGURE 4.13-8
VICINITY AERIAL MAP
0 1,000 2,000 4,000
Feet
TETRA TECH

Appendix 6.0: Phase II Environmental Site Assessment Soil Sampling Report, Approximately 256 Acres northeast corner of West Avenue J and 90th Street West

Page 2 – Section 2.1

The text was corrected to reflect that only one well exists in the north portion of the property.

The subject property consist of underdeveloped land with ~~two~~ one suspected groundwater well in the north portion of the property.

Appendix 6.0: Phase II Environmental Site Assessment Soil Sampling Report, Approximately 240 Acres of Undeveloped Land at West Avenue B and 110th Street Lancaster, California

Page 4 – Section 4.2:

The units changed from mg/kg to the correct units' µg/Kg.

All eight samples were analyzed for organochloride pesticides and two samples (B/110B2 & B/110B7) were analyzed for arsenic. Concentrations of 4,4'-DDE in the soil samples collected ranged from below the laboratory detection limit of 5.0 ~~mg/kg~~ µg/Kg to 230 ~~mg/kg~~ µg/Kg. Concentrations of 4,4'-DDT in the soil samples collected ranged from below the laboratory detection limit of 5.0 ~~mg/kg~~ µg/Kg to 27 ~~mg/kg~~ µg/Kg. The California Human Health Screening Level for 4,4'-DDE and 4,4'-DDT is 6,300 ~~mg/kg~~ µg/Kg.

Table 1: Units changed to µg/Kg

(Insert Table 1)

Table 1: Results for Arsenic changed to NA

(Insert Table 1)

4.0 Site Plans

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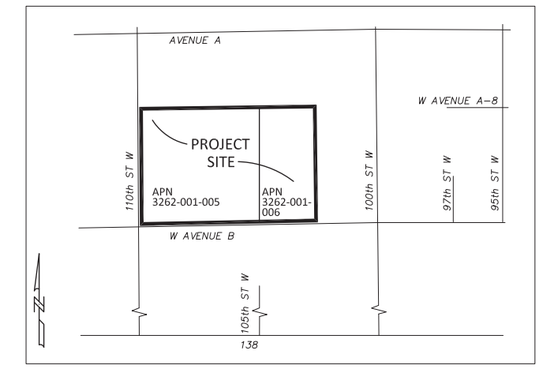
LOCATION MAP
NOT TO SCALE

PROJECT 1 NORTH LANCASTER RANCH

LOS ANGELES COUNTY, CALIFORNIA



VICINITY MAP
NOT TO SCALE

DRAWING INDEX

DRAWING NO.	TITLE
T-01	TITLE SHEET
G-01	TOPOGRAPHIC MAP
G-01	TOPOGRAPHIC MAP
C-01	SITE PLAN
C-02	GRADING PLAN
C-03	ON-SITE DRAINAGE MAP
C-04	ON-SITE DRAINAGE MAP
C-05	ON-SITE DRAINAGE MAP
C-06	ON-SITE DRAINAGE MAP
C-07	DETAIL SHEET
C-08	SECTION SHEET

NOTE:

WE HEREBY DEDICATE TO THE COUNTY OF LOS ANGELES A TWELVE (12) FOOT WIDE MULTI-USE (HIKING, MOUNTAIN BIKING AND EQUESTRIAN) TRAIL EASEMENT FOR THE PURPOSES OF THE "LITTLE BUTTES TRAIL". FULL MULTI-USE (HIKING, MOUNTAIN BIKING, AND EQUESTRIAN) PUBLIC ACCESS SHALL BE PROVIDED FOR THE TRAIL EASEMENT.

T-01

2011-00833 (RCUP201100079)

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PLOT/UPDATE: Mar 21, 2014 11:32:11 AM

REGISTERED PROFESSIONAL ENGINEER
JULIE ANN DELANEY
No.C54558
CIVIL
STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System

APNs
3262-001-005
3262-001-006
SCH # 2012061068

Project Name:
Project 1 North Lancaster Ranch

Project Address:
110th Street West & West Avenue B
Lancaster
Los Angeles County, CA

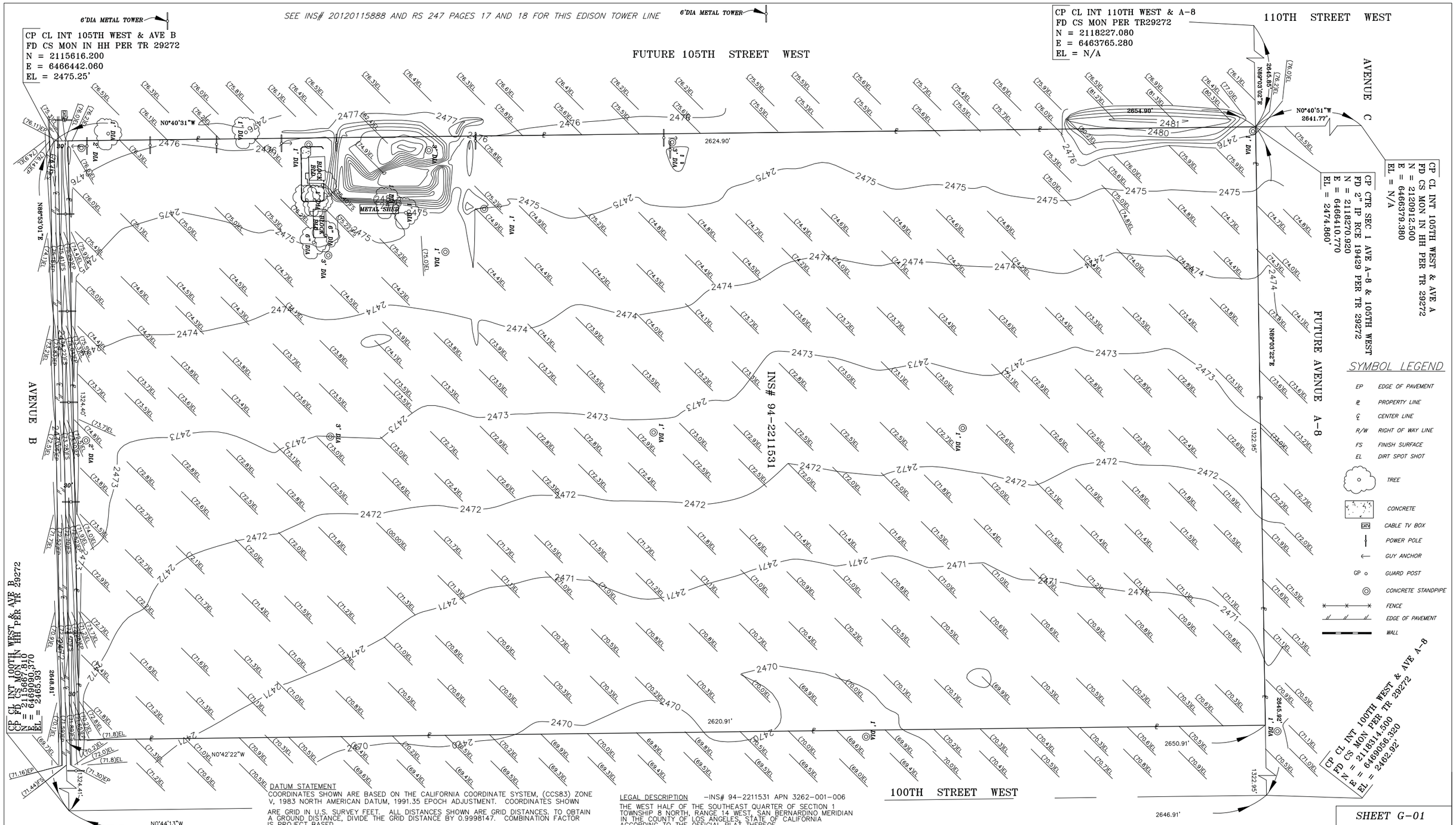
DRAWING: TITLE SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 1 NORTH LANCASTER RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main



DATUM STATEMENT
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, (CCS83) ZONE V, 1983 NORTH AMERICAN DATUM, 1991.35 EPOCH ADJUSTMENT. COORDINATES SHOWN ARE GRID IN U.S. SURVEY FEET. ALL DISTANCES SHOWN ARE GRID DISTANCES. TO OBTAIN A GROUND DISTANCE, DIVIDE THE GRID DISTANCE BY 0.9998147. COMBINATION FACTOR IS PROJECT BASED.

LEGAL DESCRIPTION —INS# 94-2211531 APN 3262-001-006
THE WEST HALF OF THE SOUTHEAST QUARTER OF SECTION 1 TOWNSHIP 8 NORTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA ACCORDING TO THE OFFICIAL PLAT THEREOF.

SHEET G-01

BASIS OF BEARING	BENCH MARK
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE V, NAD 83, EPOCH 1991.35, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS), EW7123 AND EW7124, BEING NORTH 13°31'30" EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE NATIONAL GEODETIC SURVEY.	LOS ANGELES COUNTY DPW BENCHMARK L 2329, LANCASTER 1998 ADJUSTMENT, NAVD 1988, ELEVATION = 2485.504 FEET. CS MON IN WELL 560MM DN @ C/L INT 110TH ST W & AVE B MKD (2, 1, 11, 12, R14W, T8N)

SCALE HORIZ: 1" = 100'

PROFESSIONAL LAND SURVEYOR LARRY E JERNIGAN No. 5924 EXP 12-31-12 STATE OF CALIFORNIA

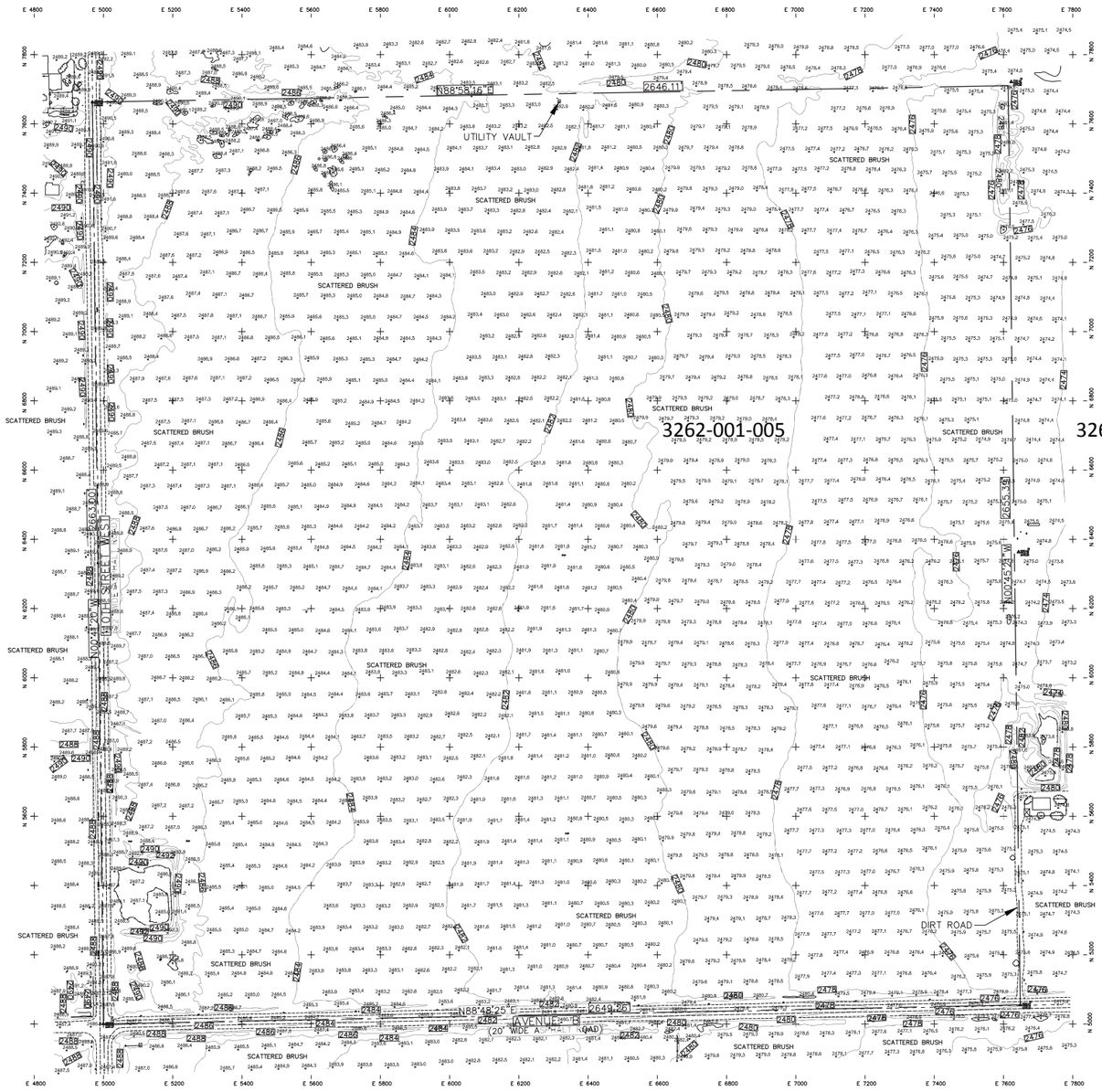
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA. 93534
(661) 942-3639

NO.	REVISION	BY	APPR.	DATE
1				
2				
3				

TOPOGRAPHIC MAP
105TH STREET WEST & WEST AVENUE B
ANTELOPE VALLEY
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

DATE OF SURVEY 4/5/12

COUNTY PLAN CHECK NUMBER 2011-00833 (RCUP201100079)



BENCH MARK

QUAD: LANCASTER
NO.: L 2328
ELEVATION: 2488.811
ADJUSTMENT: 1998
DESCRIPTION: CS MON IN WELL 300MM DN @ C/L INT 110TH ST W & AVE A-8 MKD (1/4 COR 2,1,T8N,R14W)

BENCH MARK

QUAD: LANCASTER
NO.: L 2329
ELEVATION: 2485.504
ADJUSTMENT: 1998
DESCRIPTION: CS MON IN WELL 560MM DN @ C/L INT 110TH ST W & AVE B MKD (2,1,11,12,R14W,T8N)

SURVEY NOTE

BOUNDARY BASED ON FIELD SURVEY BY SPEARS LAND SURVEY PERFORMED ON 4/28/08.

BASIS OF BEARING

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING OF N88°48'25"E BEING THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 1, TOWNSHIP 8 NORTH, RANGE 12 WEST, AS SHOWN ON THE MAP OF TRACT 29272, MAP BOOK 795, PAGES 54-59, O.R.

LEGEND

- POWER/TELEPHONE POLE
- STREET/TRAFFIC SIGN
- ON-SITE TREE

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

G-02

TOPOGRAPHIC SURVEY BY:

RJL

COMPILED USING PHOTOGRAMMETRIC METHODS BY
ROBERT J. LUCE & ASSOCIATES
2832 WALNUT AVENUE, SUITE E
TUSTIN, CALIFORNIA 92680
(714) 832-2077

WORK ORDER: 41344
DATE OF PHOTOGRAPHY: 5-2-08
CONTOUR INTERVAL: 2'

20MW AC Solar Photovoltaic Generation System

APNs
3262-001-005
3262-001-006

Project Name:
North Lancaster Ranch 6-22

Project Address:
110th Street West & West Avenue B
Lancaster
Los Angeles County, CA

Silverado Power
44 Montgomery Street, Ste. 3065
San Francisco, CA 94104
(415) 692-7740

2011-00833 (RCUP201100079)
NORTH LANCASTER RANCH
LOS ANGELES COUNTY, CA

REGISTERED PROFESSIONAL ENGINEER
CHARLES J. BECK
C19289
EXP. 9-30-09
CIVIL
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE SUPERVISION OF CHARLES J. BECK FOR E-SOLAR

(SIGNATURE)

C19289	9-30-09	07073
RCE#	EXP. DATE	PROJECT

antelope valley engineering inc.
129 WEST PONDERA STREET
LANCASTER, CA. 93534
PHONE: (661) 948-0805

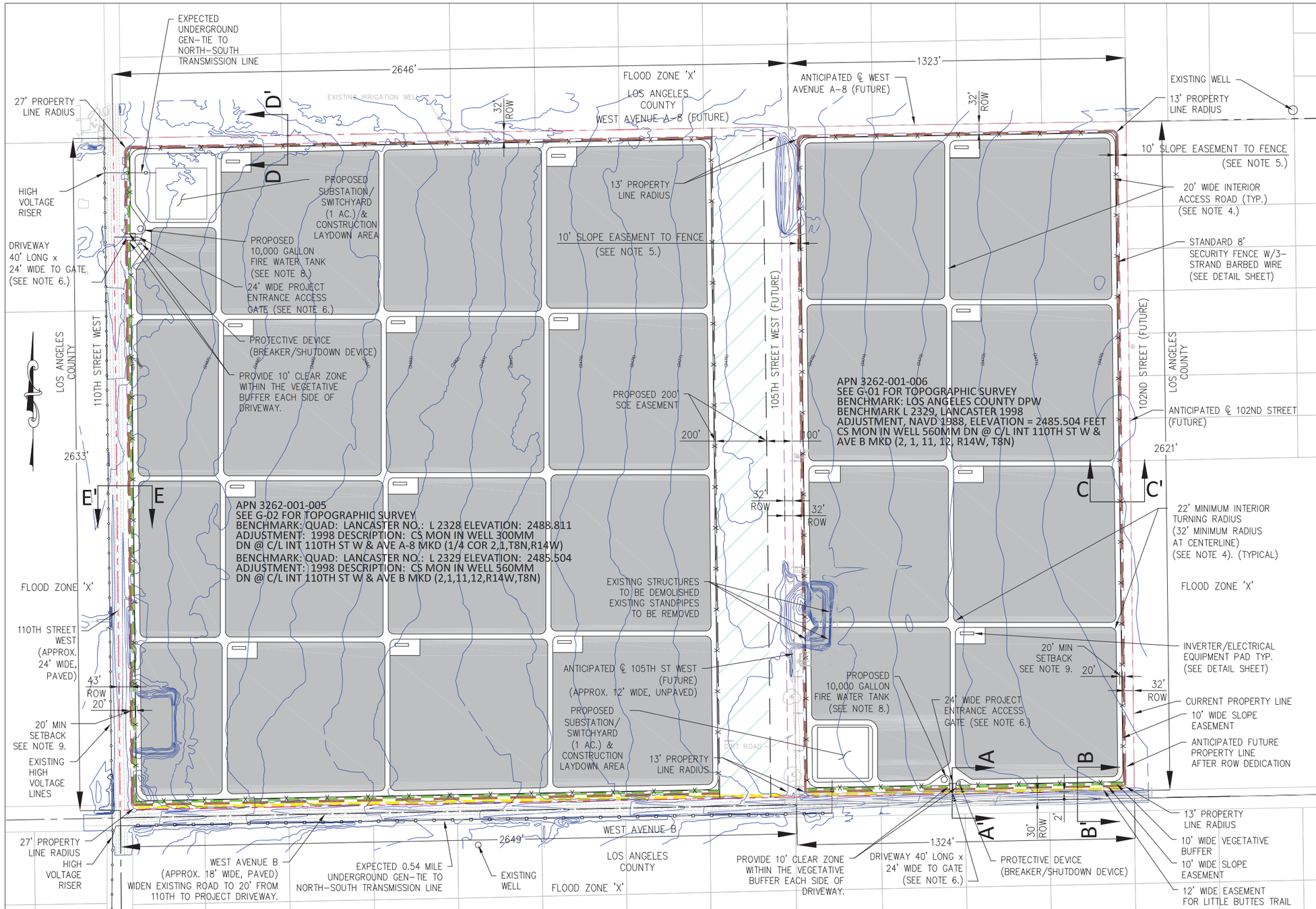
REV#		DATE
1		
2		
3		
4		
5		
6		

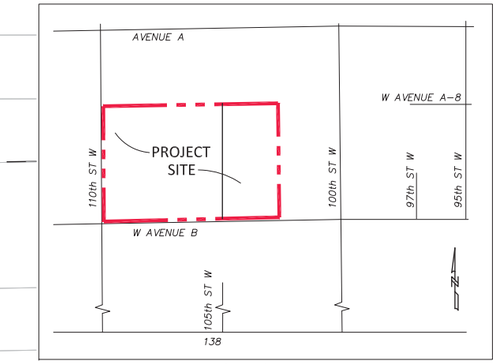
TOPOGRAPHY SURVEY
TUMBLEWEED SUNTOWER

SHEET 1 OF 1 SHTS

SCALE: 1" = 200' | CAD DWG. FILE NO.: 08066_TOPO_24x36.dwg

Julie.Delaney P:\4336-Silverado Power Solar Cup\CAD\SITE PLANS\6\6-County Submittal-C\G-02-TOPO.dwg Tue Nov 06, 2012 - 6:59am





VICINITY MAP

NO SCALE

PROJECT SITE:

PROJECT SITE IS 239 ACRES (NET)

NOTES:

1. 'ZONE X' AS SHOWN ON PANEL 0150F OF FLOOD INSURANCE RATE MAP NO. 06037C0150F. ZONE "X" DESIGNATED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

2. FIRE DEPARTMENT ACCESS DEVICE AND EMERGENCY CONTACT PLACARD LOCATED AT ALL ENTRANCE GATES.

3. MOBILE SANITATION FACILITY, AS DEFINED BY THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH, CAN BE LOCATED AT ALL PARKING LOCATIONS AND WILL BE LOCATED AT THE NEAREST LOCATION TO CONSTRUCTION AND OPERATIONAL WORKERS ACTIVITY. THE FACILITIES WILL BE KEPT TO LOS ANGELES COUNTY CODE, TITLE 11 – HEALTH & SAFETY, AND CAL-OSHA SANITATION STANDARDS IN SECTION 3360, TITLE 8, CALIFORNIA CODE OF REGULATIONS. MOBILE SANITATION FACILITIES WILL BE MADE AVAILABLE DURING CONSTRUCTION AND AS REQUIRED BY OSHA DURING OPERATIONS AND MAINTENANCE. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-07.

4. INTERIOR ACCESS ROADS WILL BE 20' WIDE, COMPACTED TO 90%, WITH 32 FOOT TURNING RADIUS AT CENTER LINE. THE INNER RADIUS WILL BE 22' AND THE OUTER RADIUS WILL BE 42'. INTERIOR ACCESS ROADS WILL BE PROVIDED TO INVERTER/ELECTRICAL EQUIPMENT PADS AND AROUND THE PERIMETER OF THE PROJECT. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-07.

5. 10 FOOT WIDE SLOPE EASEMENT WILL BE PROVIDED AROUND PERIMETER.

6. DRIVEWAY ACCESS GATES TO BE SET 40 FEET BACK FROM EDGE OF PROPERTY. DRIVEWAY WILL BE 24 FEET WIDE.

7. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND SUBJECT TO VERIFICATION DURING DETAILED DESIGN.

8. TANK CONNECTIONS PER LOS ANGELES COUNTY FIRE DEPARTMENT.

9. A 20' MINIMUM SETBACK FROM PROPERTY LINE (AFTER DEDICATIONS) TO ARRAYS OR EQUIPMENT TO BE MAINTAINED ON SITE. PROJECT FENCE, FIRE ROADS, EASEMENTS, AND VEGETATION ARE OK WITHIN THE SETBACK.

LEGEND:

MIN	MINIMUM
ROW	RIGHT OF WAY
℄	CENTERLINE
—x—x—	FENCE LINE
	OVERHEAD LINE
	UNDERGROUND LINE
	PROPERTY LINE (AFTER ROW DEDICATIONS)
	PROPERTY LINE (CURRENT)
	PARCEL LINE
(2470)	CONTOUR LINE
	SOLAR ARRAY FIELD
	10' WIDE VEGETATIVE BUFFER
	10' WIDE SLOPE EASEMENT
	12' WIDE EASEMENT FOR LITTLE BUTTES TRAIL

C-01

2011-00833 (RCUP201100079)

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System

APNs
3262-001-005
3262-001-006
SCH # 2012061068

Project Name:
Project 1 North Lancaster Ranch

Project Address:
110th Street West & West Avenue B
Lancaster
Los Angeles County, CA

DRAWING: Site Plan

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 1 NORTH
LANCASTER RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\CAD\PROJECTS\196-4336 SILVERADO POWER\SP LA-CUP_14-0324\P1-4\C-01-SITE-6.DWG
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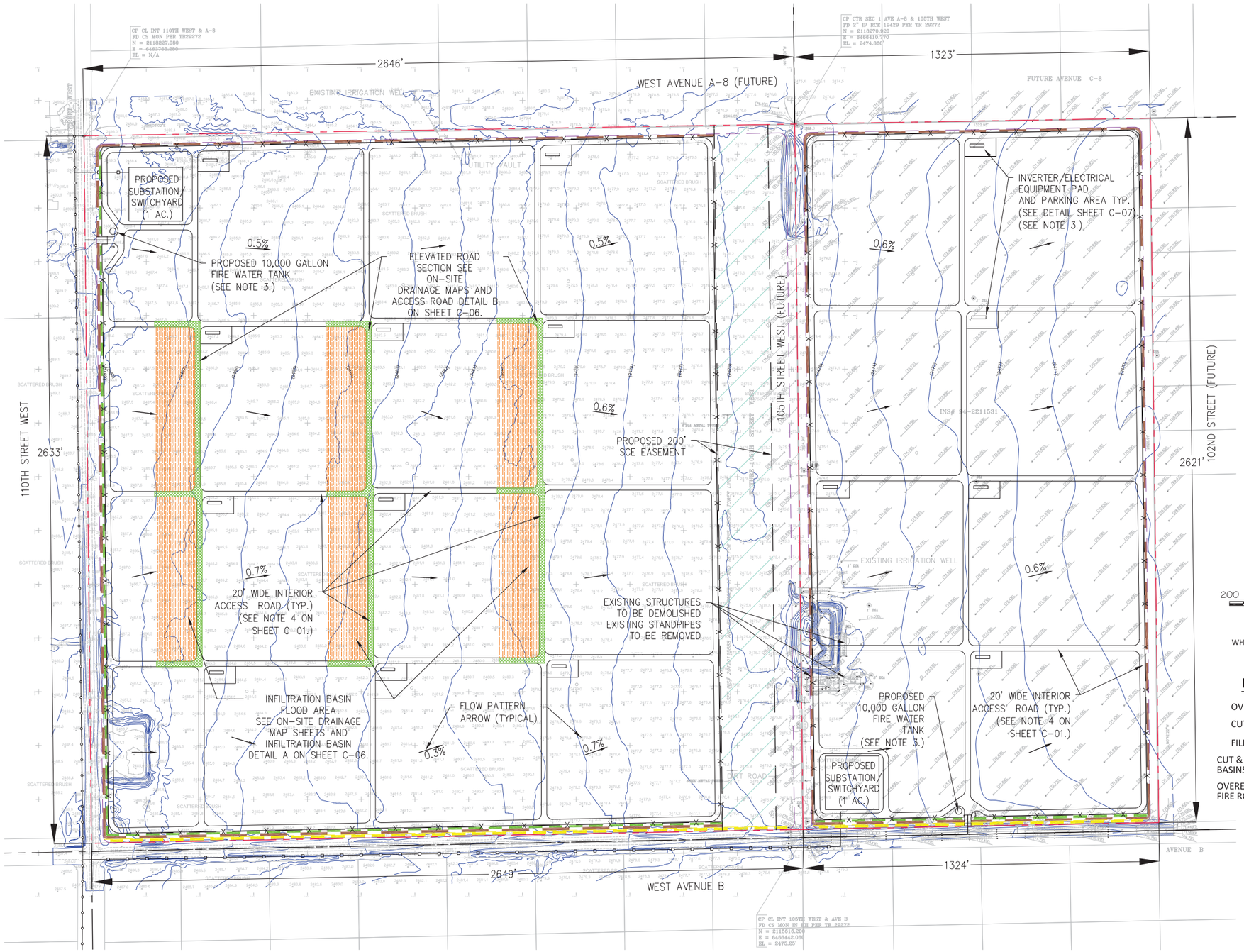


NOTES:

1. DRAINAGE ACROSS SITE IS CURRENTLY FROM THE WEST TO THE EAST, AS SHOWN ON THE SURFACE CONTOURS. TOPOGRAPHY/CONTOURS ARE BASED ON SURVEY DATA PROVIDED BY ALL VALLEY SURVEYING AND ANTELOPE VALLEY ENGINEERING, INC.

2. OVERALL EXISTING GRADING AND DRAINAGE PATTERN TO REMAIN UNCHANGED DURING AND AFTER CONSTRUCTION WITH THE EXCEPTION OF AREAS USED FOR DRAINAGE FEATURES. ELEVATED ROAD SECTIONS WILL BE USED TO CREATE INFILTRATION BASINS. FLOOD AREAS AND FLOW PATTERN ARROWS ARE SHOWN ON THIS SHEET AND SHEETS C-03 AND C-04. LIMIT OF GRADING ACTIVITIES WILL BE AT PROPERTY LINE (AFTER DEDICATIONS).

3. EQUIPMENT PADS WILL BE GRADED AS REQUIRED PER MANUFACTURER SPECIFICATIONS.

LEGEND:

CATV	CABLE TV BOX	EP	EDGE OF PAVEMENT
	POWER POLE	PL	PROPERTY LINE
	GUY ANCHOR	CL	CENTER LINE
GP	GUARD POST	R/W	RIGHT OF WAY LINE
	CONCRETE STANDPIPE	FS	FINISH SURFACE
	FENCE	EL	DIRT SPOT SHOT
	EDGE OF PAVEMENT		TREE
	WALL		CONCRETE

MIN	MINIMUM
ROW	RIGHT OF WAY
℄	CENTERLINE
—— x —— x ——	FENCE LINE
	OVERHEAD LINE
	UNDERGROUND LINE
	PROPERTY LINE (AFTER DEDICATIONS)
	PROPERTY LINE (CURRENT)
	PARCEL LINE
(2470)	CONTOUR LINE
	INFILTRATION BASIN FLOOD AREA
	ELEVATED ROAD SECTION
	10' WIDE VEGETATIVE BUFFER
	10' WIDE SLOPE EASEMENT
	12' WIDE EASEMENT FOR LITTLE BUTTES TRAIL

200 0 200 400

SCALE IN FEET

1'=200'

WHEN PRINTED TO SCALE ON 22"x34" SHEET

EARTHWORK QUANTITIES:

OVEREXCAVATION	=	43,600 CUBIC YARDS
CUT	=	5,400 CUBIC YARDS
FILL	=	5,400 CUBIC YARDS

CUT & FILL QUANTITIES INCLUDE INVERTER PADS, SUBSTATIONS/SWITCHYARDS, BASINS, AND ELEVATED ROAD BED FOR DRAINAGE FEATURES.

OVEREXCAVATION QUANTITY INCLUDES ACCESSIBLE FIRE ROAD.

SURVEY INFORMATION:

TOPOGRAPHIC MAP AND CONTOURING PREPARED BY ALL VALLEY SURVEYING, SEE TOPOGRAPHIC MAP SHEET G-01 AND ANTELOPE VALLEY ENGINEERING, INC. SEE TOPOGRAPHIC MAP SHEET G-02

BASIS OF BEARINGS:

SEE TOPOGRAPHIC MAP SHEETS G-01 & G-02.

BENCHMARK:

SEE TOPOGRAPHIC MAP SHEETS G-01 & G-02.

SURVEYORS:

LARRY E. JERNIGAN, PLS #5924
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA 93534
(661) 942-3639

CHARLES J. BECK, PE #C19289
ANTELOPE VALLEY ENGINEERING, INC.
129 WEST PONDERA ST.
LANCASTER, CA 93534
(661) 948-0805

C-02

2011-00833 (RCUP201100079)

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System

APNs
3262-001-005
3262-001-006
SCH # 2012061068

Project Name:
Project 1 North Lancaster Ranch

Project Address:
110th Street West & West Avenue B
Lancaster
Los Angeles County, CA

DRAWING:
Preliminary Grading & Drainage Plan

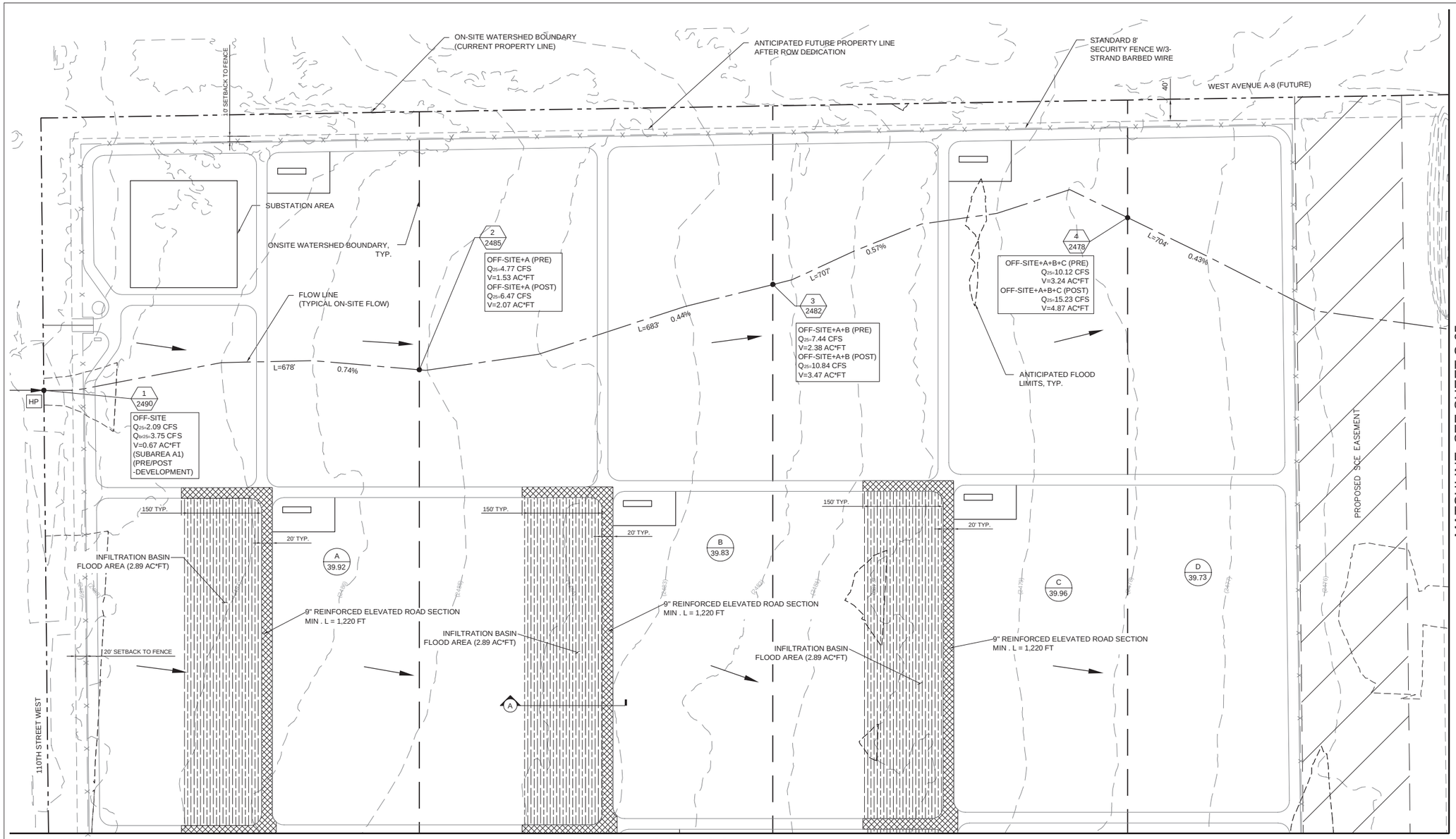
APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 1 NORTH
LANCASTER RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\CAD\PROJECTS\196-4336 SILVERADO POWER\SP LA-CUP_14-0324\P1-4\C-02-GRAD-6.DWG
PLOT/UPDATE: Mar 24, 2014 10:27:29 AM



LEGEND:

XX / XX.X	SUBAREA ID / ACREAGE
XX / XXX	NODE ID / ELEVATION
HP	HIGH POINT
LP	LOW POINT
	WATERSHED BOUNDARY
	FUTURE PROPERTY LINE
X	SECURITY FENCING
	FLOW LINE
	SUB-AREA BOUNDARY
	ANTICIPATED 25-YR FLOOD LIMITS
	ELEVATED ROAD SECTION
	INFILTRATION BASIN FLOOD AREA

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Q_{br25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = (1,300 CY / SQ. MI.) * (TOTAL WATERSHED AREA 0.419 SQ. MI.) = 545 CY

DRAINAGE CONCEPT NOTES:
1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
2) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3) APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTES).
4) AN OFFSITE DRAINAGE COVENANT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
5) A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
6) A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
7) BASIN SIZES ARE DEPENDENT ON THE VERIFICATION OF PERCOLATION RATES AND ARE SUBJECT TO CHANGE.
8) NOT WITHIN A FEMA ZONE A. WITHIN FEMA FLOOD ZONE X, UNSHADED.
9) NOT WITHIN A COUNTY ADOPTED FLOODWAY.
10) ALL BASINS ARE PRIVATELY MAINTAINED.
11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATE (Q_{50}) DECREASED BY 1.5%, THE VOLUME (V_{50}) INCREASED BY 6.9%, THE DEPTH INCREASED BY 0.0%, AND THE VELOCITY INCREASED BY 0.0%. THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. SEE IMPACT ANALYSIS CALCULATIONS.

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____ RCE NO:_____ DATE_____
CHECKED BY:_____ DATE_____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

N
0 50 100 200
SCALE: 1":100' (ON FULL SIZE DWG.)

2011-00833 (RCUP201100079) C-03

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System
APNs
3262-001-005
3262-001-006
SCH # 2012061068

Project Name:
Project 1 North Lancaster Ranch
Project Address:
110th Street West & West Avenue B
Lancaster
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100079 ON-SITE DRAINAGE MAP

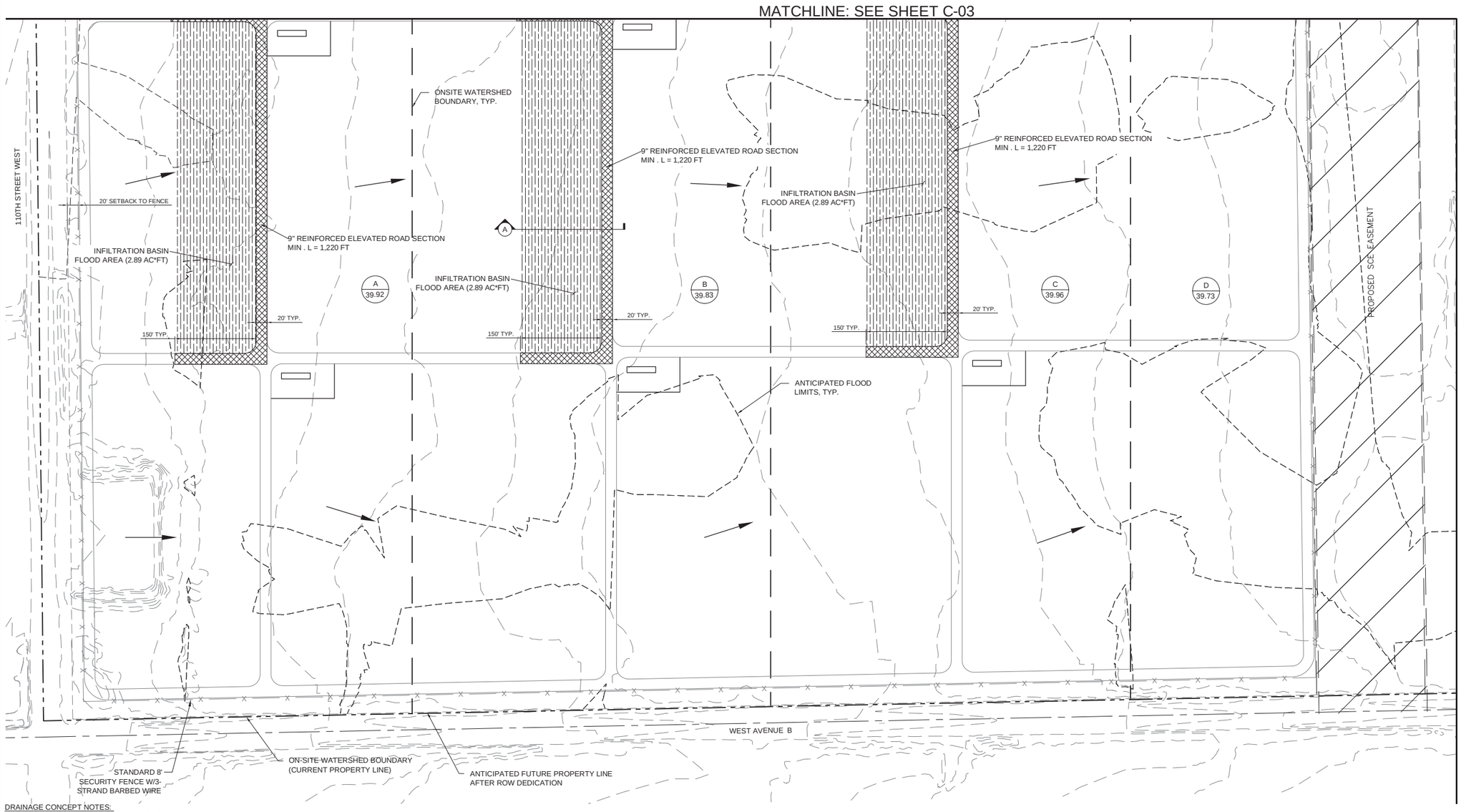
APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 1 NORTH LANCASTER RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\245486\135-04546-12001\SUPPORTDOCS\CALCS\HYDROLOGY\CUP6\FINAL DESIGN\ONSITE HYDROLOGY C03.DWG
PLOT/UPDATE: Dec 6, 2013 10:44:45 AM



LEGEND:

XX / XX.X	SUBAREA ID / ACREAGE
XX / XXX	NODE ID / ELEVATION
HP	HIGH POINT
LP	LOW POINT
	WATERSHED BOUNDARY
	FUTURE PROPERTY LINE
X	SECURITY FENCING
	FLOW LINE
	SUB-AREA BOUNDARY
	ANTICIPATED 25-YR FLOOD LIMITS
	ELEVATED ROAD SECTION
	INFILTRATION BASIN FLOOD AREA

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Q_{br25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = (1,300 CY / SQ. MI.) * (TOTAL WATERSHED AREA 0.419 SQ. MI.) = 545 CY

DRAINAGE CONCEPT NOTES:

1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
2) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3) APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTES).
4) AN OFFSITE DRAINAGE COVENANT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
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11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATE (Q_{50}) DECREASED BY 1.5%, THE VOLUME (V_{50}) INCREASED BY 6.9%, THE DEPTH INCREASED BY 0.0%, AND THE VELOCITY INCREASED BY 0.0%. THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. SEE IMPACT ANALYSIS CALCULATIONS.

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____RCE NO:_____DATE_____
CHECKED BY:_____DATE_____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

N
0 50 100 200
SCALE: 1":100' (ON FULL SIZE DWG.)

2011-00833 (RCUP201100079) C-04

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA

JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System
APNs
3262-001-005
3262-001-006
SCH # 2012061068

Project Name:
Project 1 North Lancaster Ranch
Project Address:
110th Street West & West Avenue B
Lancaster
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100079 ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 1 NORTH
LANCASTER RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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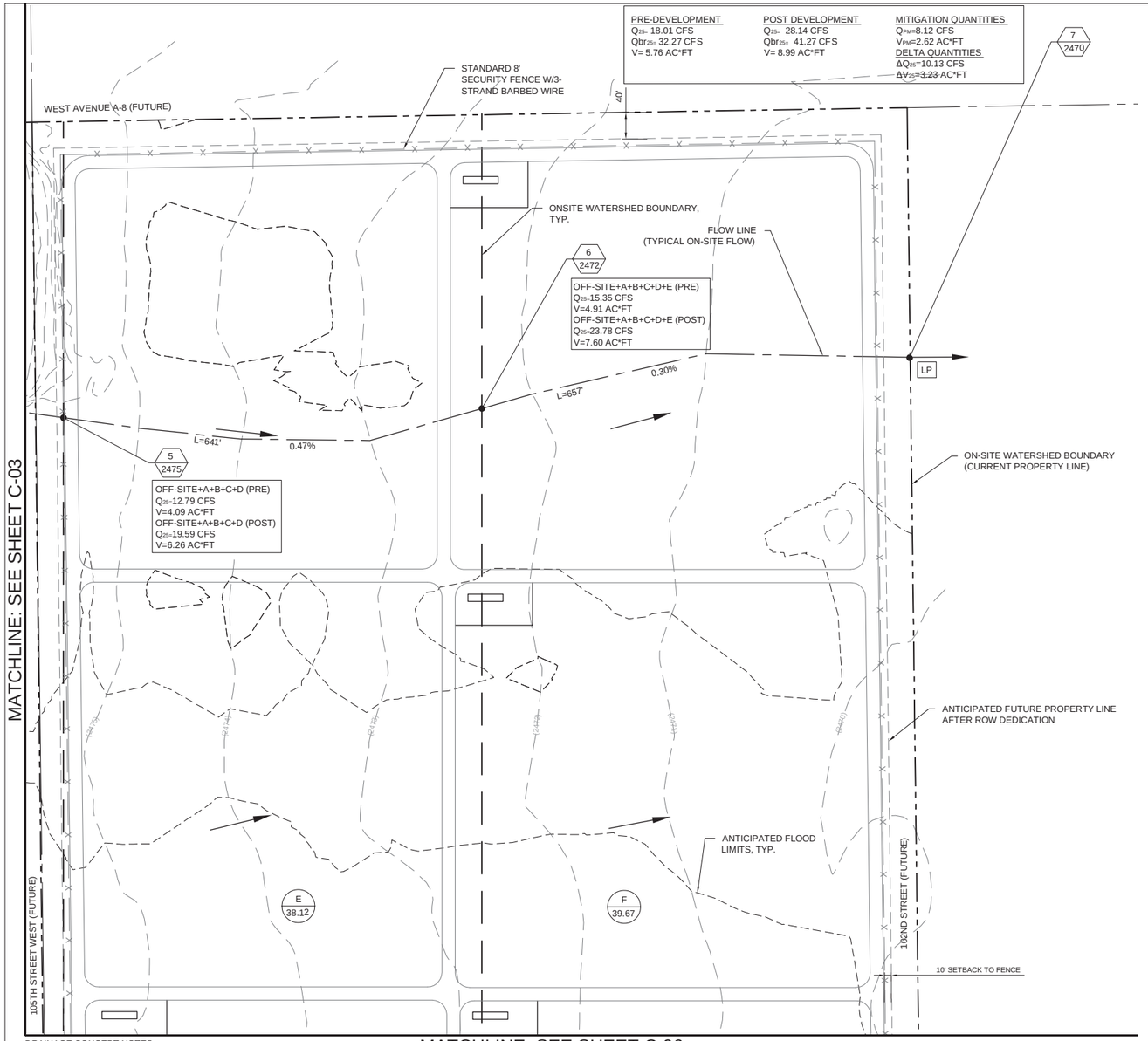
PLOT/UPDATE: Dec 6, 2013 10:39:57 AM

PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION QUANTITIES
Q_{25}= 18.01 CFS	Q_{25}= 28.14 CFS	Q_{PM}=8.12 CFS
Q_{Brf25}= 32.27 CFS	Q_{Brf25}= 41.27 CFS	V_{PM}=2.62 AC*FT
V= 5.76 AC*FT	V= 8.99 AC*FT	DELTA QUANTITIES
		ΔQ_{25}=10.13 CFS
		ΔV_{25}=3.23 AC*FT



HYDROLOGY RESULTS: (BASED ON LA FLOOD CONTROL TC CALCULATOR)

ON-SITE HYDROLOGY (PRE-DEVELOPMENT)

Project	Subarea	Area (acre)	Q_{100}	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre-ft)
Project 1	A	39.92	0.01	2	120	678	0.0074	1.0	30	0.27	0.10	0.11	1.19	0.34	1.52	0.38
Project 1	B	39.83	0.01	2	120	683	0.0044	1.0	30	0.27	0.10	0.11	1.18	0.34	1.52	0.37
Project 1	C	39.96	0.01	2	120	707	0.0057	1.0	30	0.27	0.10	0.11	1.19	0.34	1.52	0.38
Project 1	D	39.73	0.01	2	120	704	0.0043	1.0	30	0.27	0.10	0.11	1.18	0.34	1.51	0.37
Project 1	E	38.12	0.01	2	120	641	0.0047	1.0	30	0.27	0.10	0.11	1.13	0.34	1.44	0.36
Project 1	F	39.67	0.01	2	120	657	0.0030	1.0	30	0.27	0.10	0.11	1.18	0.34	1.51	0.37
Project 1	A	39.92	0.01	5	120	678	0.0074	1.6	30	0.41	0.10	0.11	1.80	0.34	3.08	0.57
Project 1	B	39.83	0.01	5	120	683	0.0044	1.6	30	0.41	0.10	0.11	1.80	0.34	3.07	0.57
Project 1	C	39.96	0.01	5	120	707	0.0057	1.6	30	0.41	0.10	0.11	1.80	0.34	3.08	0.57
Project 1	D	39.73	0.01	5	120	704	0.0043	1.6	30	0.41	0.10	0.11	1.79	0.34	3.06	0.57
Project 1	E	38.12	0.01	5	120	641	0.0047	1.6	30	0.41	0.10	0.11	1.72	0.34	2.94	0.55
Project 1	F	39.67	0.01	5	120	657	0.0030	1.6	30	0.41	0.10	0.11	1.79	0.34	3.06	0.57
Project 1	A	39.92	0.01	10	120	678	0.0074	1.9	30	0.50	0.10	0.11	2.20	0.34	3.85	0.70
Project 1	B	39.83	0.01	10	120	683	0.0044	1.9	30	0.50	0.10	0.11	2.19	0.34	3.84	0.70
Project 1	C	39.96	0.01	10	120	707	0.0057	1.9	30	0.50	0.10	0.11	2.20	0.34	3.85	0.70
Project 1	D	39.73	0.01	10	120	704	0.0043	1.9	30	0.50	0.10	0.11	2.19	0.34	3.83	0.69
Project 1	E	38.12	0.01	10	120	641	0.0047	1.9	30	0.50	0.10	0.11	2.10	0.34	3.67	0.67
Project 1	F	39.67	0.01	10	120	657	0.0030	1.9	30	0.50	0.10	0.11	2.19	0.34	3.82	0.69
Project 1	A	39.92	0.01	25	120	678	0.0074	2.4	30	0.61	0.10	0.11	2.74	0.34	4.80	0.86
Project 1	B	39.83	0.01	25	120	683	0.0044	2.4	30	0.61	0.10	0.11	2.67	0.34	4.79	0.85
Project 1	C	39.96	0.01	25	120	707	0.0057	2.4	30	0.61	0.10	0.11	2.68	0.34	4.80	0.86
Project 1	D	39.73	0.01	25	120	704	0.0043	2.4	30	0.61	0.10	0.11	2.67	0.34	4.78	0.85
Project 1	E	38.12	0.01	25	120	641	0.0047	2.4	30	0.61	0.10	0.11	2.56	0.34	4.58	0.82
Project 1	F	39.67	0.01	25	120	657	0.0030	2.4	30	0.61	0.10	0.11	2.67	0.34	4.77	0.85
Project 1	A	39.92	0.01	50	120	678	0.0074	2.7	30	0.69	0.13	0.14	3.96	0.34	6.24	0.96
Project 1	B	39.83	0.01	50	120	683	0.0044	2.7	30	0.69	0.13	0.14	3.95	0.34	6.23	0.96
Project 1	C	39.96	0.01	50	120	707	0.0057	2.7	30	0.69	0.13	0.14	3.96	0.34	6.25	0.96
Project 1	D	39.73	0.01	50	120	704	0.0043	2.7	30	0.69	0.13	0.14	3.94	0.34	6.21	0.96
Project 1	E	38.12	0.01	50	120	641	0.0047	2.7	30	0.69	0.13	0.14	3.68	0.34	5.96	0.94
Project 1	F	39.67	0.01	50	120	657	0.0030	2.7	30	0.69	0.13	0.14	3.93	0.34	6.21	0.96
Project 1	A	39.92	0.01	MIT	120	678	0.0074	0.75	30	0.19	0.10	0.11	0.83	0.34	1.29	0.27
Project 1	B	39.83	0.01	MIT	120	683	0.0044	0.75	30	0.19	0.10	0.11	0.83	0.34	1.29	0.27
Project 1	C	39.96	0.01	MIT	120	707	0.0057	0.75	30	0.19	0.10	0.11	0.84	0.34	1.29	0.27
Project 1	D	39.73	0.01	MIT	120	704	0.0043	0.75	30	0.19	0.10	0.11	0.83	0.34	1.28	0.27
Project 1	E	38.12	0.01	MIT	120	641	0.0047	0.75	30	0.19	0.10	0.11	0.80	0.34	1.23	0.26
Project 1	F	39.67	0.01	MIT	120	657	0.0030	0.75	30	0.19	0.10	0.11	0.83	0.34	1.28	0.27

ON-SITE HYDROLOGY (POST-DEVELOPMENT)

Project	Subarea	Area (acre)	Q_{100}	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre-ft)
Project 1	A	39.92	0.1	2	120	678	0.0074	1.0	30	0.27	0.10	0.18	1.94	0.34	2.61	0.61
Project 1	B	39.83	0.1	2	120	683	0.0044	1.0	30	0.27	0.10	0.18	1.94	0.34	2.61	0.61
Project 1	C	39.96	0.1	2	120	707	0.0057	1.0	30	0.27	0.10	0.18	1.94	0.34	2.61	0.62
Project 1	D	39.73	0.1	2	120	704	0.0043	1.0	30	0.27	0.10	0.18	1.93	0.34	2.60	0.61
Project 1	E	38.12	0.1	2	120	641	0.0047	1.0	30	0.27	0.10	0.18	1.85	0.34	2.49	0.59
Project 1	F	39.67	0.1	2	120	657	0.0030	1.0	30	0.27	0.10	0.18	1.93	0.34	2.60	0.61
Project 1	A	39.92	0.1	5	120	678	0.0074	1.6	30	0.41	0.10	0.18	2.95	0.34	4.11	0.93
Project 1	B	39.83	0.1	5	120	683	0.0044	1.6	30	0.41	0.10	0.18	2.94	0.34	4.10	0.93
Project 1	C	39.96	0.1	5	120	707	0.0057	1.6	30	0.41	0.10	0.18	2.95	0.34	4.12	0.93
Project 1	D	39.73	0.1	5	120	704	0.0043	1.6	30	0.41	0.10	0.18	2.93	0.34	4.09	0.93
Project 1	E	38.12	0.1	5	120	641	0.0047	1.6	30	0.41	0.10	0.18	2.81	0.34	3.93	0.89
Project 1	F	39.67	0.1	5	120	657	0.0030	1.6	30	0.41	0.10	0.18	2.93	0.34	4.09	0.93
Project 1	A	39.92	0.1	10	120	678	0.0074	1.9	30	0.50	0.10	0.18	3.59	0.34	5.00	1.14
Project 1	B	39.83	0.1	10	120	683	0.0044	1.9	30	0.50	0.10	0.18	3.58	0.34	5.08	1.14
Project 1	C	39.96	0.1	10	120	707	0.0057	1.9	30	0.50	0.10	0.18	3.60	0.34	5.10	1.14
Project 1	D	39.73	0.1	10	120	704	0.0043	1.9	30	0.50	0.10	0.18	3.58	0.34	5.07	1.14
Project 1	E	38.12	0.1	10	120	641	0.0047	1.9	30	0.50	0.10	0.18	3.43	0.34	4.87	1.09
Project 1	F	39.67	0.1	10	120	657	0.0030	1.9	30	0.50	0.10	0.18	3.57	0.34	5.06	1.13
Project 1	A	39.92	0.1	25	120	678	0.0074	2.4	30	0.61	0.10	0.18	4.38	0.34	6.31	1.40
Project 1	B	39.83	0.1	25	120	683	0.0044	2.4	30	0.61	0.10	0.18	4.37	0.34	6.40	1.40
Project 1	C	39.96	0.1	25	120	707	0.0057	2.4	30	0.61	0.10	0.18	4.39	0.34	6.32	1.40
Project 1	D	39.73	0.1	25	120	704	0.0043	2.4	30	0.61	0.10	0.18	4.36	0.34	6.28	1.39
Project 1	E	38.12	0.1	25	120	641	0.0047	2.4	30	0.61	0.10	0.18	4.19	0.34	6.03	1.34
Project 1	F	39.67	0.1	25	120	657	0.0030	2.4	30	0.61	0.10	0.18	4.36	0.34	6.28	1.39
Project 1	A	39.92	0.1	50	120	678	0.0074	2.7	30	0.69	0.13	0.21	5.76	0.34	7.95	1.61
Project 1	B	39.83	0.1	50	120	683	0.0044	2.7	30	0.69	0.13	0.21	5.77	0.34	7.94	1.60
Project 1	C	39.96	0.1	50	120	707	0.0057	2.7	30	0.69	0.13	0.21	5.79	0.34	7.96	1.61
Project 1	D	39.73	0.1	50	120	704	0.0043	2.7	30	0.69	0.13	0.21	5.76	0.34	7.92	1.60
Project 1	E	38.12	0.1	50	120	641	0.0047	2.7	30	0.69	0.13	0.21	5.52	0.34	7.59	1.53
Project 1	F	39.67	0.1	50	120	657	0.0030	2.7	30	0.69	0.13	0.21	5.75	0.34	7.90	1.60
Project 1	A	39.92	0.1	MIT	120	678	0.0074	0.75	30	0.19	0.10	0.18	1.37	0.34	1.78	0.44
Project 1	B	39.83	0.1	MIT	120	683	0.0044	0.75	30	0.19	0.10	0.18	1.36	0.34	1.77	0.44
Project 1	C	39.96	0.1	MIT	120	707	0.0057	0.75	30	0.19	0.10	0.18	1.37	0.34	1.78	0.44
Project 1	D	39.73	0.1	MIT	120	704	0.0043	0.75	30	0.19	0.10	0.18	1.36	0.34	1.77	0.44
Project 1	E	38.12	0.1	MIT	120	641	0.0047	0.75	30	0.19	0.10	0.18	1.30	0.34	1.70	0.42
Project 1	F	39.67	0.1	MIT	120	657	0.0030	0.75	30	0.19	0.10	0.18	1.36	0.34	1.77	0.44

Incremental Flow and Volume Increase for Various Storm Events

Storm Event	Pre Q (cfs)	Post Q (cfs)	Delta Q (cfs)	Pre V (acre-ft)	Post V (acre-ft)	Delta V (acre-ft)
2.00	7.05	13.53	6.48	2.23	3.65	1.42
5.00	10.70	17.51	6.81	3.40	5.54	2.14
10.00	13.06	21.35	8.29	4.15	6.78	2.63
25.00	15.92	26.05	10.13	5.05	8.32	3.23
50.00	22.92	34.37	11.45	5.86	9.55	3.69

NOTE: FOR INFILTRATION BASIN MITIGATION VOLUME, SUM MIT. FREQUENCY VOLUMES UNDER POST-DEVELOPMENT TABLE. V_{PM}=2.62 AC*FT.

DELTA QUANTITIES FOR DRAINAGE AREA A:
$\Delta Q25$ = 4.38 - 2.68 = 1.70 CFS
$\Delta V25$ = 1.40 - 0.86 = 0.54 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA B:
$\Delta Q25$ = 4.37 - 2.67 = 1.70 CFS
$\Delta V25$ = 1.40 - 0.85 = 0.55 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA C
$\Delta Q25$ = 4.39 - 2.68 = 1.71 CFS
$\Delta V25$ = 1.32 - 0.86 = 0.54 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA D
$\Delta Q25$ = 4.36 - 2.67 = 1.69 CFS
$\Delta V25$ = 1.39 - 0.85 = 0.54 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA E
$\Delta Q25$ = 4.19 - 2.56 = 1.63 CFS
$\Delta V25$ = 1.34 - 0.82 = 0.52 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA F
$\Delta Q25$ = 4.36 - 2.66 = 1.70 CFS
$\Delta V25$ = 1.39 - 0.85 = 0.54 AC*FT

TOTAL DELTA QUANTITIES
$\Delta Q25$ = 10.13 CFS
$\Delta V25$ = 3.23 AC*FT

NOTE: DUE TO THE LID Δ QUANTITIES ABOVE BEING GREATER THAN THE MITIGATION QUANTITIES (Q_{PM} AND V_{PM}) THEY REPRESENT THE WORST CASE SCENARIO BETWEEN THE PRE-/POST DEVELOPMENT CONDITIONS AND THEREFORE SHALL BE USED FOR SIZING THE INFILTRATION BASINS.

LEGEND:

- XX / XX.X — SUBAREA ID / ACREAGE
- XX / XXX — NODE ID / ELEVATION
- HP — HIGH POINT
- LP — LOW POINT
- WATERSHED BOUNDARY
- FUTURE PROPERTY LINE
- X — SECURITY FENCING
- FLOW LINE
- SUB-AREA BOUNDARY
- ANTICIPATED 25-YR FLOOD LIMITS
- ELEVATED ROAD SECTION
- INFILTRATION BASIN FLOOD AREA

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Q_{Brf25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = (1.300 CY / SQ. MI.) * (TOTAL WATERSHED AREA 0.419 SQ. MI.) = 545 CY

DRAINAGE CONCEPT NOTES:
1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
2) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3) APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTES).
4) AN OFFSITE DRAINAGE COVENANT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
5) A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
6) A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
7) BASIN SIZES ARE DEPENDENT ON THE VERIFICATION OF PERCOLATION RATES AND ARE SUBJECT TO CHANGE.
8) NOT WITHIN A FEMA ZONE A. WITHIN FEMA FLOOD ZONE X, UNSHADED.
9) NOT WITHIN A COUNTY ADOPTED FLOODWAY.
10) ALL BASINS ARE PRIVATELY MAINTAINED.
11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATE (Q_{50}) DECREASED BY 1.5%, THE VOLUME (V_{50}) INCREASED BY 6.9%, THE DEPTH INCREASED BY 0.0%, AND THE VELOCITY INCREASED BY 0.0%. THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. SEE IMPACT ANALYSIS CALCULATIONS.

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____RCE NO:_____DATE_____
CHECKED BY:_____DATE_____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

SCALE: 1":100' (ON FULL SIZE DWG.)

2011-00833 (RCUP201100079) C-05

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System
APNs
3262-001-005
3262-001-006
SCH # 2012061068

Project Name:
Project 1 North Lancaster Ranch
Project Address:
110th Street West & West Avenue B
Lancaster
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100079 ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 1 NORTH
LANCASTER RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\045461\35-04546-T20011\SUPPORTDOCS\CALCS\HYDROLOGY\CUP6\FINAL DESIGN\ONSITE HYDROLOGY C05.DWG
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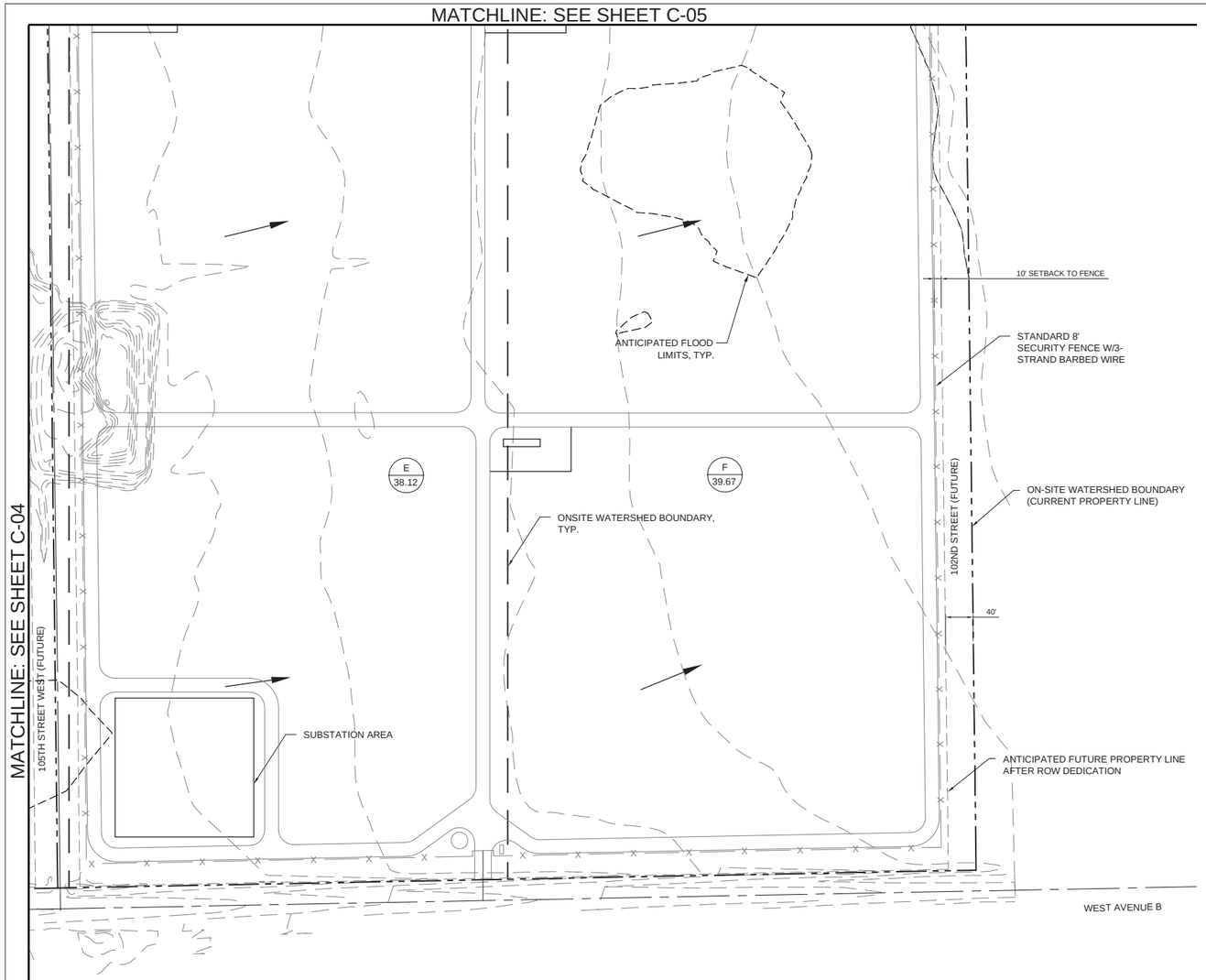

LEGEND:

XX / XX.X	SUBAREA ID / ACREAGE
XX / XXX	NODE ID / ELEVATION
HP	HIGH POINT
LP	LOW POINT
	WATERSHED BOUNDARY
	FUTURE PROPERTY LINE
X	SECURITY FENCING
	FLOW LINE
	SUB-AREA BOUNDARY
	ANTICIPATED 25-YR FLOOD LIMITS
	ELEVATED ROAD SECTION
	INFILTRATION BASIN FLOOD AREA

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Qbr_{25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
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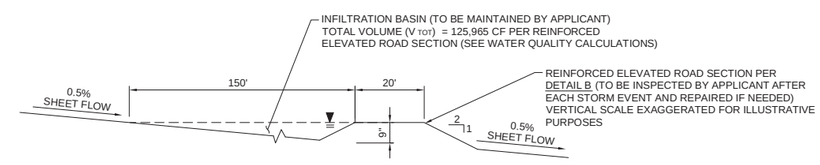
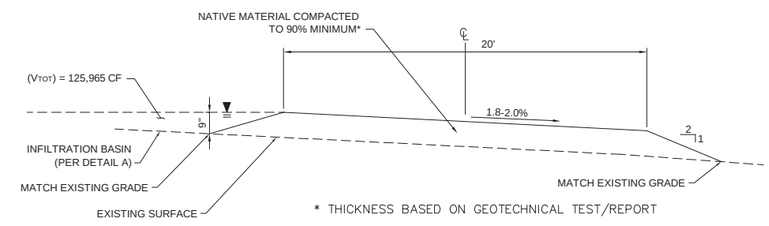
V_{DP} DEBRIS POTENTIAL VOLUME = (1,300 CY / SQ. MI.) * (TOTAL WATERSHED AREA 0.419 SQ. MI.) = 545 CY



A INFILTRATION BASIN DETAIL
SCALE: NTS



B ACCESS ROAD DETAIL (TYP.)
SCALE: NTS

N

0 50 100 200
SCALE: 1":100' (ON FULL SIZE DWG.)

DRAINAGE CONCEPT NOTES:
1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
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HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____RCE NO:_____DATE_____
CHECKED BY:_____DATE_____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

2011-00833 (RCUP201100079) C-06

PREPARED UNDER THE SUPERVISION:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System
APNs
3262-001-005
3262-001-006
SCH # 2012061068

Project Name:
Project 1 North Lancaster Ranch
Project Address:
110th Street West & West Avenue B
Lancaster
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100079 ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 1 NORTH
LANCASTER RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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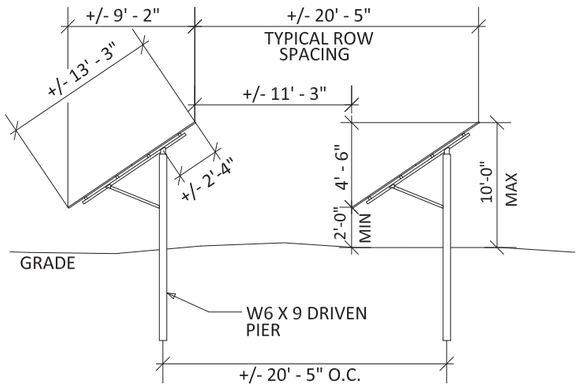
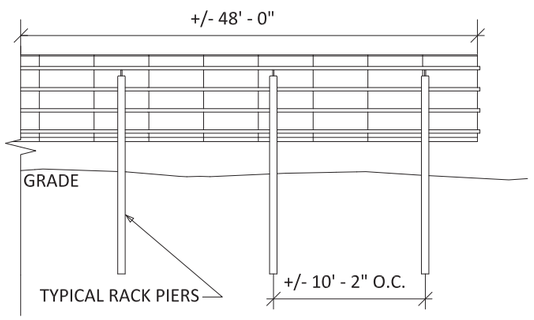


TYPICAL SOLAR ARRAY RACK DETAIL AND END ELEVATION

NOT TO SCALE



SOLAR ARRAY RACK DETAIL ELEVATION

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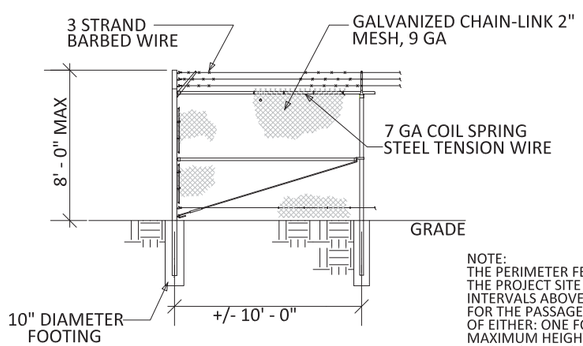
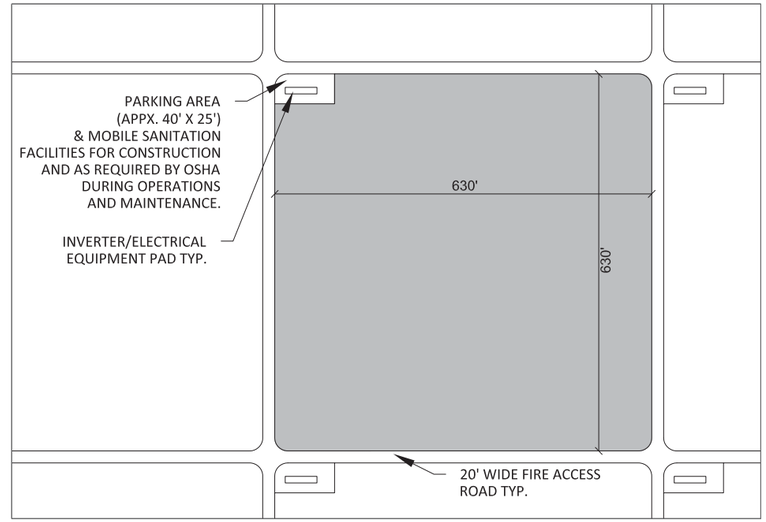


NOTE:
THE PERIMETER FENCING SURROUNDING THE PROJECT SITE WILL BE RAISED AT REGULAR INTERVALS ABOVE GROUND LEVEL TO ALLOW FOR THE PASSAGE OF WILDLIFE TO THE LESSER OF EITHER: ONE FOOT ABOVE GRADE OR TO THE MAXIMUM HEIGHT ALLOWED BY THE PUC. RAISED OPENINGS WILL BE 50' WIDE SPACED AT 200' ON-CENTER.

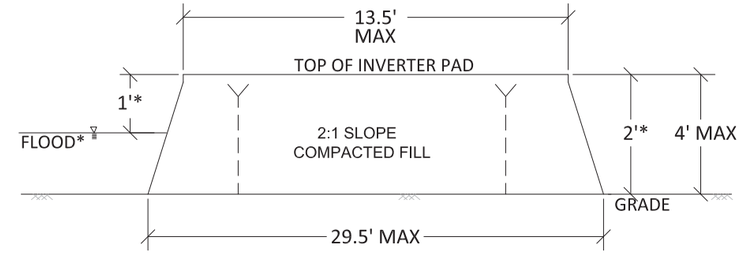
CHAIN LINK SECURITY FENCE ELEVATION

NOT TO SCALE



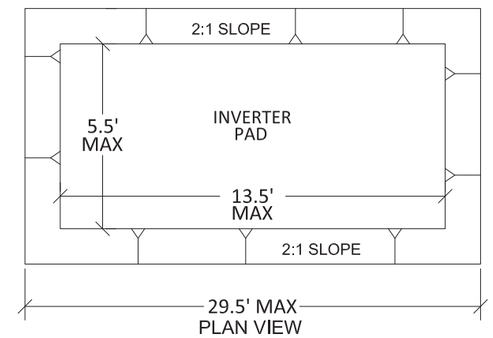
ARRAY BLOCK DETAIL (TYPICAL)

NOT TO SCALE



*TOP OF INVERTER PAD TO BE 1' MINIMUM ABOVE FLOOD WATER ELEVATION AS DETERMINED IN FINAL HYDROLOGY REPORT AND 2' ABOVE GRADE IN FEMA ZONE A.

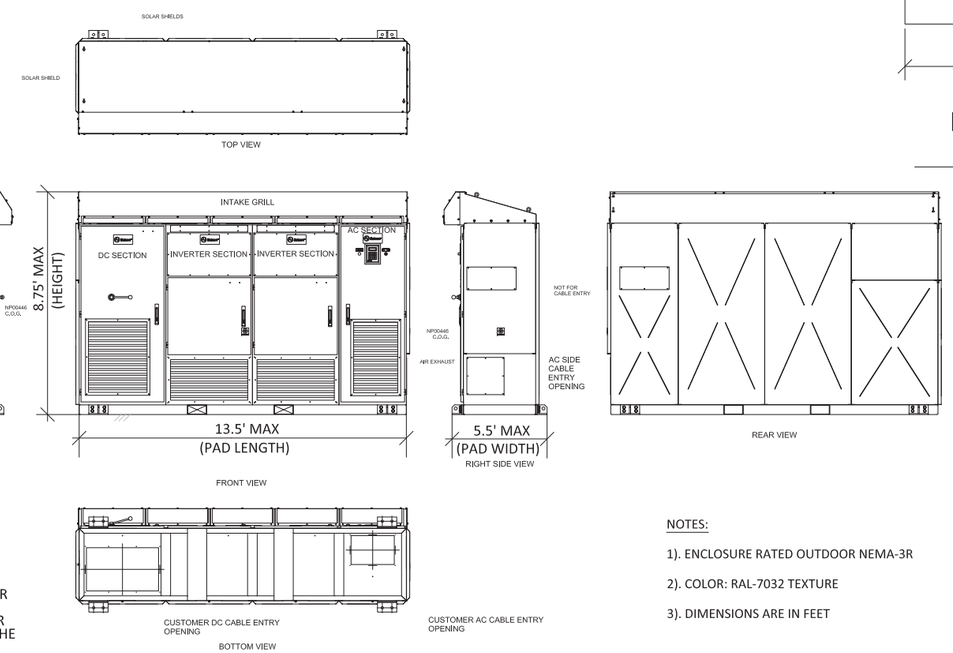
ELEVATION VIEW



PLAN VIEW

RAISED INVERTER PAD DETAILS FOR FLOOD AREAS AS NEEDED

NOT TO SCALE



NOTES:

1). ENCLOSURE RATED OUTDOOR NEMA-3R

2). COLOR: RAL-7032 TEXTURE

3). DIMENSIONS ARE IN FEET

INVERTER PAD DETAILS (TYPICAL)

NOT TO SCALE

C-07

2011-00833 (RCUP201100079)

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System

APNs
3262-001-005
3262-001-006
SCH # 2012061068

Project Name:
Project 1 North Lancaster Ranch

Project Address:
110th Street West & West Avenue B
Lancaster
Los Angeles County, CA

DRAWING: DETAIL SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 1 NORTH LANCASTER RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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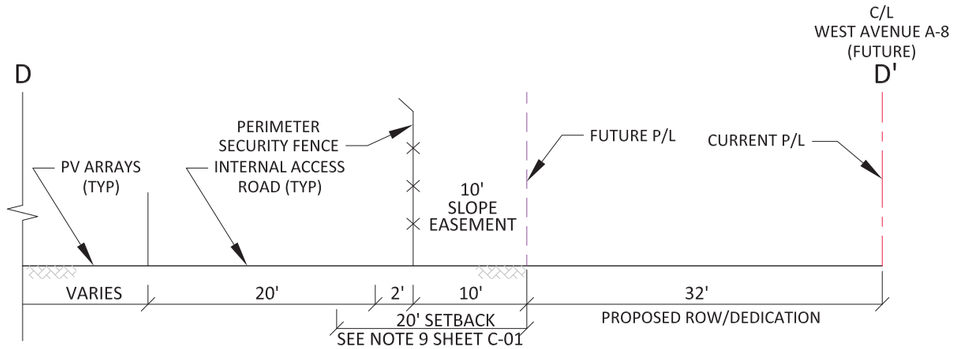
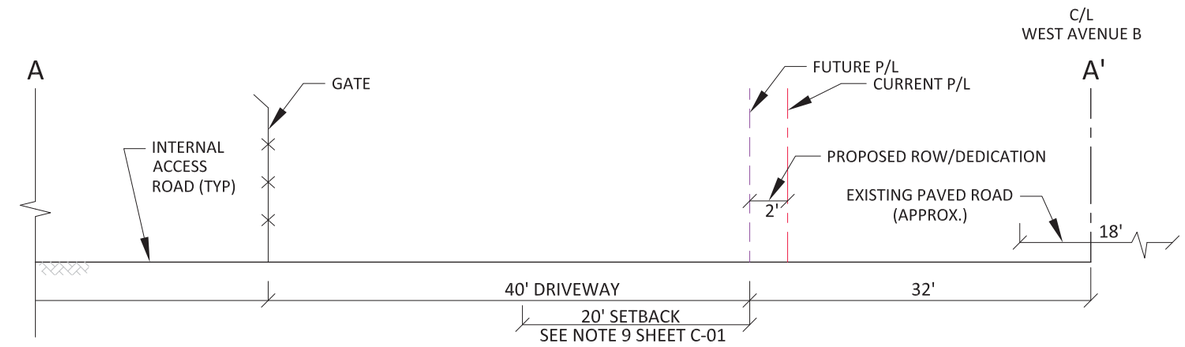


SECTION D - D'

NOT TO SCALE



SECTION A - A'

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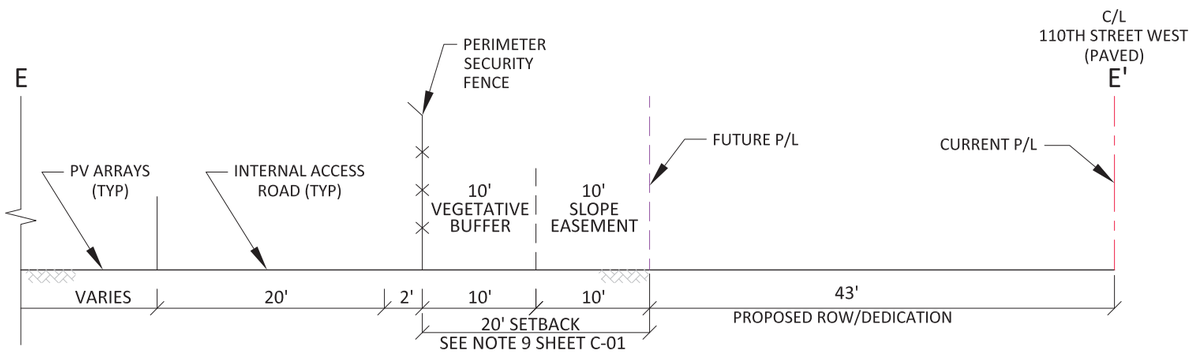

SECTION E - E'

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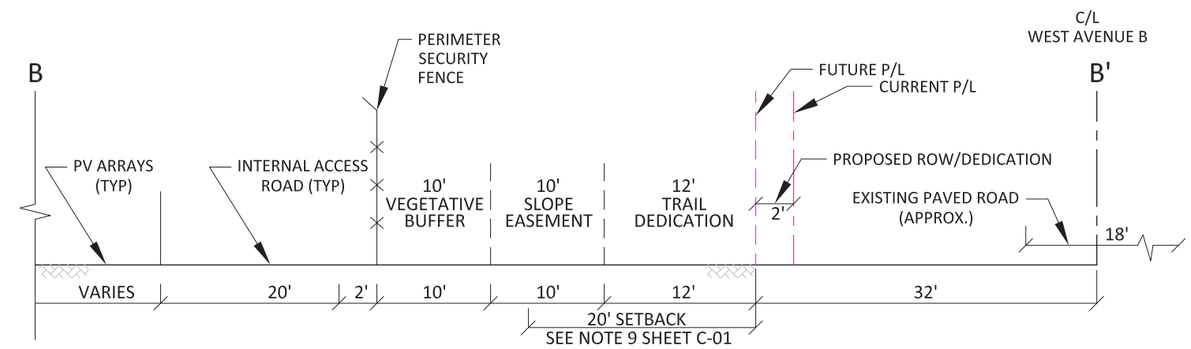

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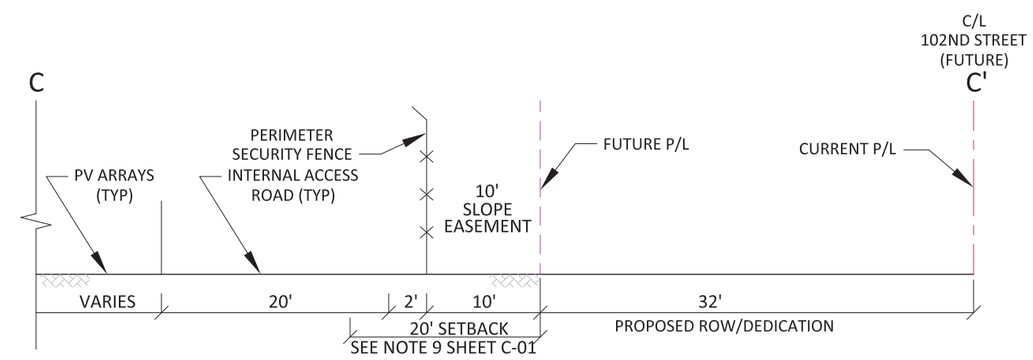

SECTION C - C'

NOT TO SCALE

C-08

2011-00833 (RCUP201100079)

REGISTERED PROFESSIONAL ENGINEER
JULIE ANN DELANEY
No.C54558
CIVIL
STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.

17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System

APNs
3262-001-005
3262-001-006
SCH # 2012061068

Project Name:
Project 1 North Lancaster Ranch

Project Address:
110th Street West & West Avenue B
Lancaster
Los Angeles County, CA

DRAWING: SECTION SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 1 NORTH
LANCASTER RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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PLOT/UPDATE: Mar 24, 2014 2:13:30 PM

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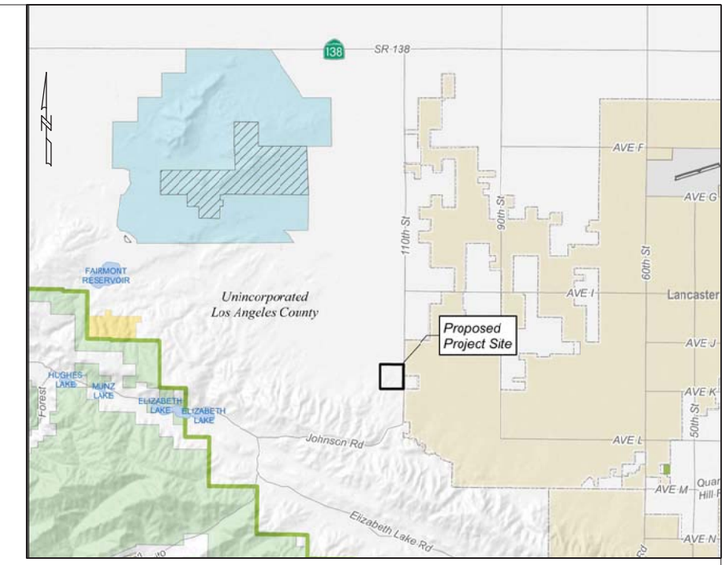
LOCATION MAP
NOT TO SCALE

PROJECT 2 WESTERN ANTELOPE BLUE SKY RANCH

LOS ANGELES COUNTY, CALIFORNIA



VICINITY MAP
NOT TO SCALE

DRAWING INDEX

DRAWING NO.	TITLE
T-01	TITLE SHEET
G-01	TOPOGRAPHIC MAP
G-02	TOPOGRAPHIC MAP
C-01	SITE PLAN
C-02	GRADING PLAN
C-03	ON-SITE DRAINAGE MAP
C-04	ON-SITE DRAINAGE MAP
C-05	ON-SITE DRAINAGE MAP
C-06	ON-SITE DRAINAGE MAP
C-07	DETAIL SHEET
C-08	SECTION SHEET
C-09	GEN-TIE ROUTE OPTIONS

NOTE:

WE HEREBY DEDICATE TO THE COUNTY OF LOS ANGELES A TWELVE (12) FOOT WIDE MULTI-USE (HIKING, MOUNTAIN BIKING AND EQUESTRIAN) TRAIL EASEMENT FOR THE PURPOSES OF THE "CALIFORNIA POPPY TRAIL". FULL MULTI-USE (HIKING, MOUNTAIN BIKING, AND EQUESTRIAN) PUBLIC ACCESS SHALL BE PROVIDED FOR THE TRAIL EASEMENT.

SURVEY INFORMATION:

TOPOGRAPHIC MAP AND 2' CONTOURING PREPARED BY ALL VALLEY SURVEYING.
BENCHMARK AND BASIS OF BEARINGS SHOWN ON TOPOGRAPHIC MAP, DRAWING G-01 & G-02.

SURVEYOR:

LARRY E. JERNIGAN, PLS #5924
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA 93534
(661) 942-3639

T-01
R2011-00798 (RCUP201100070)

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PLOT/UPDATE: Mar 21, 2014 11:32:05 AM

REGISTERED PROFESSIONAL ENGINEER
JULIE ANN DELANEY
No.C54558
CIVIL
STATE OF CALIFORNIA

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

40MW AC Solar Photovoltaic Generation System

APN:
3267-015-001

SCH # 2012061068

Project Name:
Project 2 Western Antelope Blue Sky Ranch
Project Address:
110th Street West & West Ave K
Lancaster, CA 93536-7703
Los Angeles County, CA

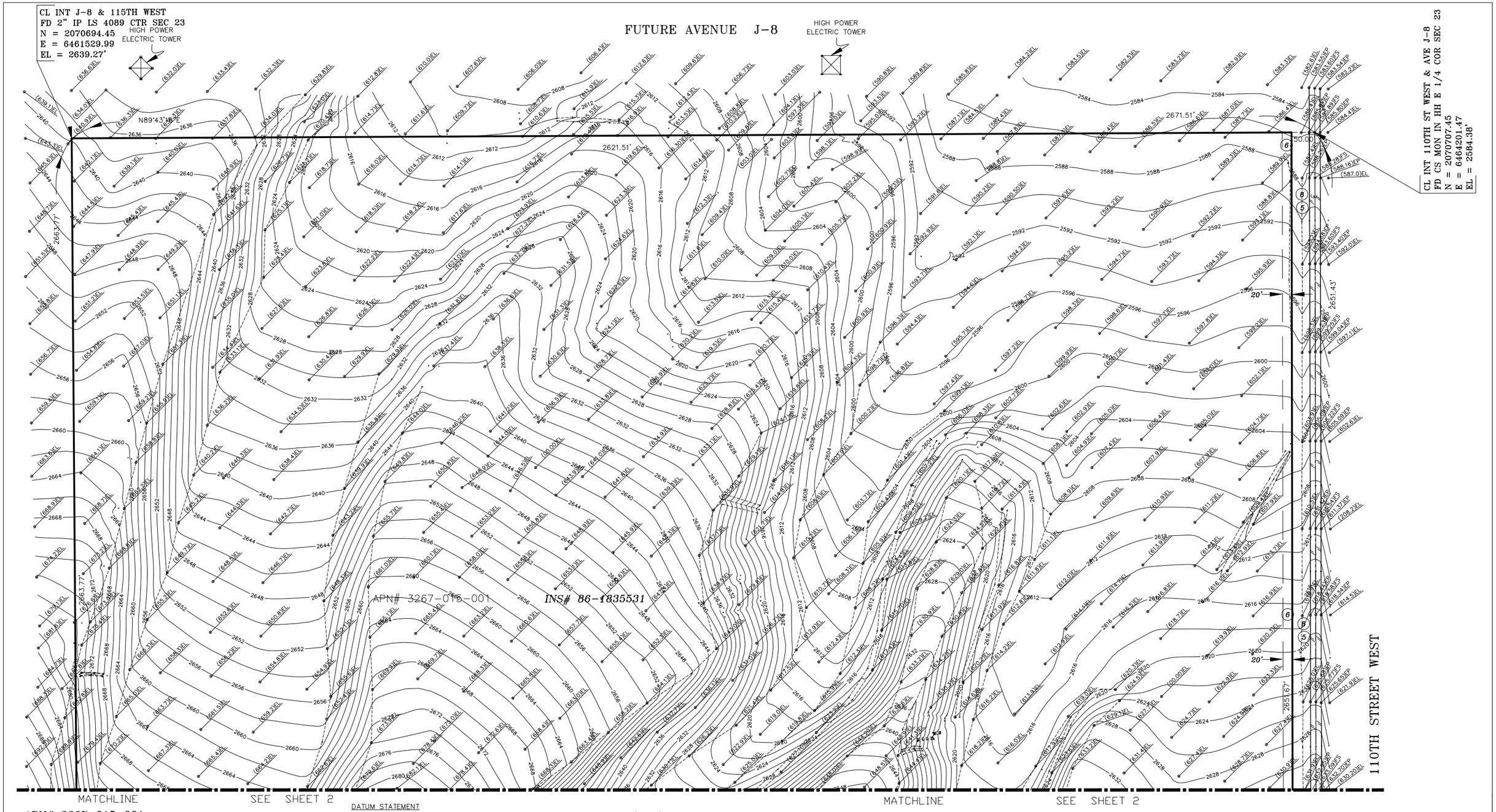
DRAWING: TITLE SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 2
WESTERN ANTELOPE
BLUE SKY RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main



APN# 3267-015-001

INS# 86-1835531

DATUM STATEMENT
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, (CCS83) ZONE V, 1983 NORTH AMERICAN DATUM, 1991.35 EPOCH ADJUSTMENT. COORDINATES SHOWN ARE IN U.S. SURVEY FEET. ALL DISTANCES SHOWN ARE GRID DISTANCES. TO OBTAIN A GROUND DISTANCE, DIVIDE THE GRID DISTANCE BY 0.999853427
COMBINATION FACTOR IS PROJECT BASED.

SHEET 1/2	SHEET G-01

BASIS OF BEARING	BENCH MARK
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE V, NAD 83, EPOCH 1991.35, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS), EW7110 AND EW7125, BEING NORTH 00°10'12" EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE NATIONAL GEODETIC SURVEY.	LOS ANGELES COUNTY BENCHMARK L 5660, LANCASTER 1998 ADJUSTMENT, NAVD 1988, ELEVATION= 2685.887 FEET DPW BM TAG IN NW COR CONC GTE PAD @ SE COR AVE K & 110TH ST W 39M E & 11.7M S/O C/L INT

SCALE
HORIZ: 1"= 100'

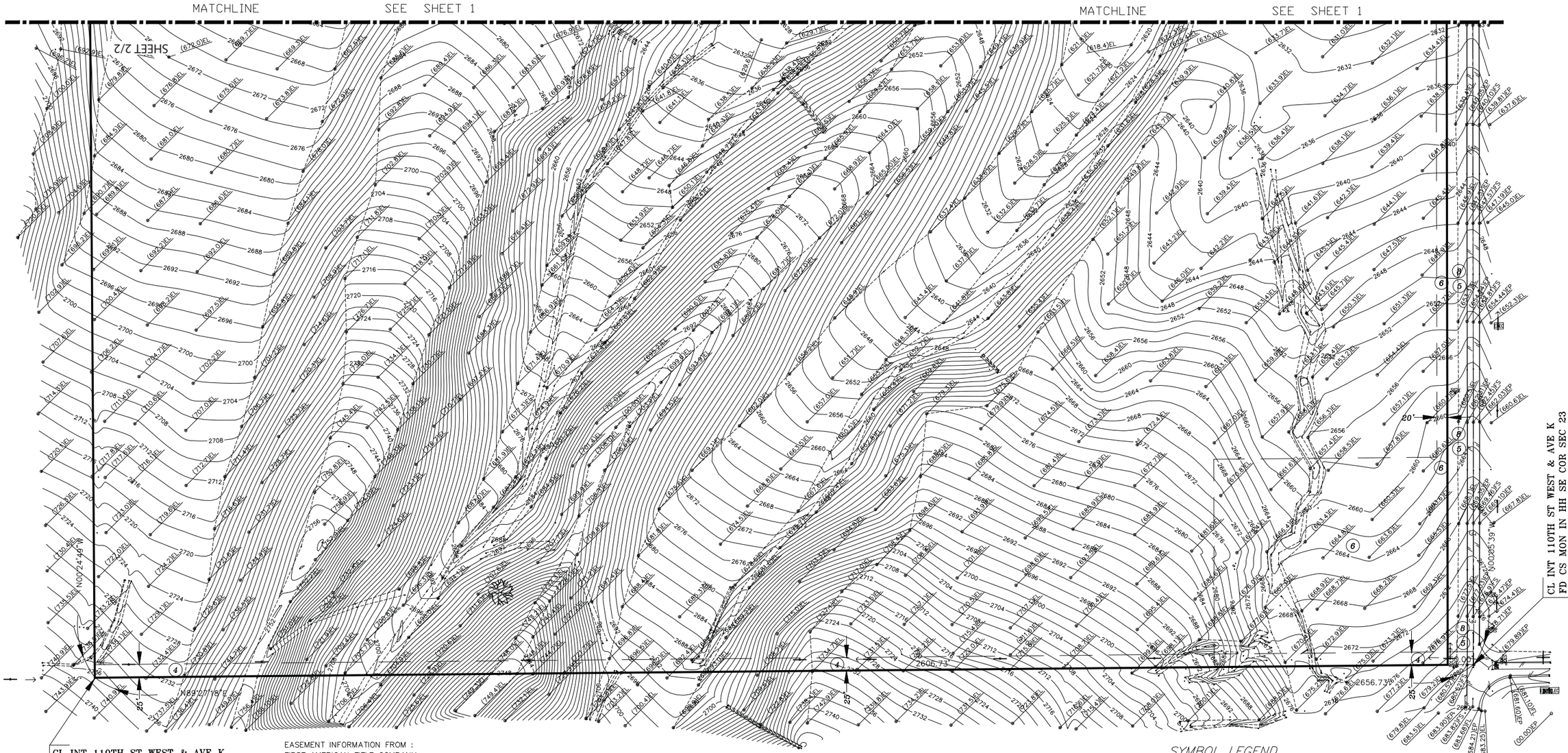
PROFESSIONAL LAND SURVEYOR
LARRY E JERNIGAN
No. 5924
EXP 12-31-12
STATE OF CALIFORNIA

ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA. 93534
(661) 942-3639

NO.	REVISION	BY	APPR.	DATE
1				
2				
3				

TOPOGRAPHIC MAP
AVENUE K & 110TH STREET WEST
ANTELOPE VALLEY
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

DATE OF SURVEY	COUNTY PLAN CHECK NUMBER
4/28/12	2011-00833(RCUP201100079)



EASEMENT INFORMATION FROM :
FIRST AMERICAN TITLE COMPANY
TITLE REPORTS:
NCS-467227-SD (12/14/10)

(4) – EASEMENT FOR POLE LINES AND INCIDENTAL PURPOSE RECORDED IN BOOK 5861 PAGE 166 OF DEEDS

(5) – 30' ROAD EASEMENT FOR 110TH STREET WEST RECORDED IN BOOK 18303 PAGE 233, O.R. BK 4738, PG 306 O.R.

(6) – EASEMENT FOR DEBRIS BASIN AND STORM DRAIN RECORDED 6/1/44 AS INS# 1577 IN BOOK 21009 PAGE 15, O.R.

(7) – DOES NOT APPLY TO THIS PROPERTY

(8) – 20' ROAD EASEMENT TO 50' FOR 110TH STREET WEST RECORDED 2/4/65 AS INS# 3344 IN BOOK D-2788 PAGE 420

APN# 3267-015-001

INS# 86-1835531

DATUM STATEMENT
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, (CCS83) ZONE V, 1983 NORTH AMERICAN DATUM, 1991.35 EPOCH ADJUSTMENT. COORDINATES SHOWN ARE IN U.S. SURVEY FEET. ALL DISTANCES SHOWN ARE GRID DISTANCES. TO OBTAIN A GROUND DISTANCE, DIVIDE THE GRID DISTANCE BY 0.999853427 COMBINATION FACTOR IS PROJECT BASED.

SYMBOL LEGEND

	POWER POLE	STOP	STOP SIGN
	GUY ANCHOR	SIGN	MISC SIGN
ELEC	ELECTRIC BOX	EP	EDGE OF PAVEMENT
	EDGE OF PAVEMENT	FL	FLOW LINE
		PL	PROPERTY LINE
	SHRUB/TREE	℄	CENTER LINE
		R/W	RIGHT OF WAY LINE
	CONCRETE	FS	FINISH SURFACE

BASIS OF BEARING	BENCH MARK
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE V, NAD 83, EPOCH 1991.35, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS), EW7110 AND EW7125, BEING NORTH 00°10'12" EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE NATIONAL GEODETIC SURVEY.	LOS ANGELES COUNTY BENCHMARK L 5660, LANCASTER 1998 ADJUSTMENT, NAVD 1988, ELEVATION= 2685.887 FEET DPW BM TAG IN NW COR CONC GTE PAD @ SE COR AVE K & 110TH ST W 39M E & 11.7M S/O C/L INT

SCALE
HORIZ: 1"= 100'

PROFESSIONAL LAND SURVEYOR
LARRY E JERNIGAN
No. 5924
EXP 12-31-12
STATE OF CALIFORNIA

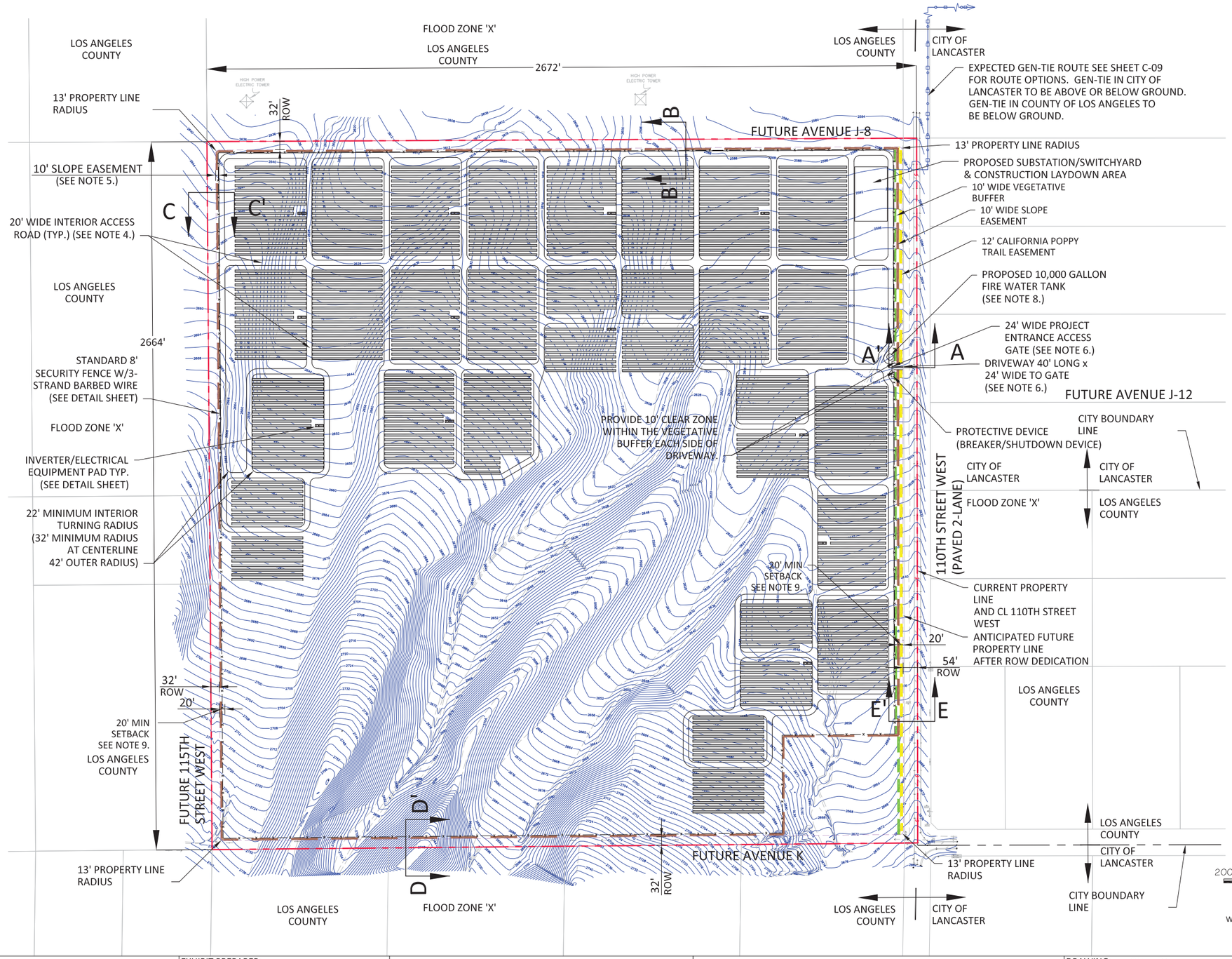
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA. 93534
(661) 942-3639

NO.	REVISION	BY	APPR.	DATE
1				
2				
3				

SHEET 2/2	SHEET G-01

TOPOGRAPHIC MAP
AVENUE K & 110TH STREET WEST
ANTELOPE VALLEY
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

DATE OF SURVEY	COUNTY PLAN CHECK NUMBER
4/28/12	2011-00833(RCUP201100079)



PROJECT SITE:

PROJECT SITE IS 163 ACRES (NET)

NOTES:

1. 'ZONE X' AS SHOWN ON PANEL 0400F OF FLOOD INSURANCE RATE MAP NO. 06037C0400F. ZONE "X" DESIGNATED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

2. FIRE DEPARTMENT ACCESS DEVICE AND EMERGENCY CONTACT PLACARD LOCATED AT ALL ENTRANCE GATES.

3. MOBILE SANITATION FACILITY, AS DEFINED BY THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH, CAN BE LOCATED AT ALL PARKING LOCATIONS AND WILL BE LOCATED AT THE NEAREST LOCATION TO CONSTRUCTION AND OPERATIONAL WORKERS ACTIVITY. THE FACILITIES WILL BE KEPT TO LOS ANGELES COUNTY CODE, TITLE 11 - HEALTH & SAFETY, AND CAL-OSHA SANITATION STANDARDS IN SECTION 3360, TITLE 8, CALIFORNIA CODE OF REGULATIONS. MOBILE SANITATION FACILITIES WILL BE MADE AVAILABLE DURING CONSTRUCTION AND AS REQUIRED BY OSHA DURING OPERATIONS AND MAINTENANCE. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-07.

4. INTERIOR ACCESS ROADS WILL BE 20' WIDE, COMPACTED TO 90%, WITH 32 FOOT TURNING RADIUS AT CENTER LINE. THE INNER RADIUS WILL BE 22' AND THE OUTER RADIUS WILL BE 42'. INTERIOR ACCESS ROADS WILL BE PROVIDED TO INVERTER/ELECTRICAL EQUIPMENT PADS AND AROUND THE PERIMETER OF THE PROJECT. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-07.

5. 10 FOOT WIDE SETBACK ZONE AROUND PERIMETER TO FENCE LINE TO PROVIDE SLOPE EASEMENT.

6. DRIVEWAY ACCESS GATES TO BE SET 40 FEET BACK FROM EDGE OF PROPERTY. DRIVEWAY WILL BE 24 FEET WIDE.

7. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND SUBJECT TO VERIFICATION DURING DETAILED DESIGN.

8. TANK CONNECTIONS PER LOS ANGELES COUNTY FIRE DEPARTMENT.

9. A 20' MINIMUM SETBACK FROM PROPERTY LINE (AFTER DEDICATIONS) TO ARRAYS OR EQUIPMENT TO BE MAINTAINED ON SITE. PROJECT FENCE, FIRE ROADS, EASEMENTS, AND VEGETATION ARE OK WITHIN THE SETBACK.

BENCHMARK:

LOS ANGELES COUNTY BENCHMARK L 5660, LANCASTER 1998 ADJUSTMENT, NAVD 1988, ELEVATION= 2685.887 FEET DPW BM TAG IN NW COR CONC GTE PAD @ SE COR AVE K & 110TH ST W 39M E & 11.7M S/O C/L INT

LEGEND:

MIN	MINIMUM
ROW	RIGHT OF WAY
℄	CENTERLINE
—x—x—	FENCE LINE
	OVERHEAD LINE
	UNDERGROUND LINE
	PROPERTY LINE (AFTER ROW DEDICATIONS)
	PROPERTY LINE (CURRENT)
	PARCEL LINE
(2470)	CONTOUR LINE
	SOLAR ARRAY FIELD
	10' WIDE VEGETATIVE BUFFER
	10' WIDE SLOPE EASEMENT
	12' WIDE EASEMENT FOR THE CALIFORNIA POPPY TRAIL

200 0 200 400

SCALE IN FEET

1'=200'

WHEN PRINTED TO SCALE ON 22"x34" SHEET

C-01

R2011-00798 (RCUP201100070)

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.

17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

40MW AC Solar Photovoltaic Generation System

APN: 3267-015-001

SCH # 2012061068

Project Name: Project 2 Western Antelope Blue Sky Ranch
Project Address: 110th Street West & West Ave K Lancaster, CA 93536-7703 Los Angeles County, CA

DRAWING: Site Plan

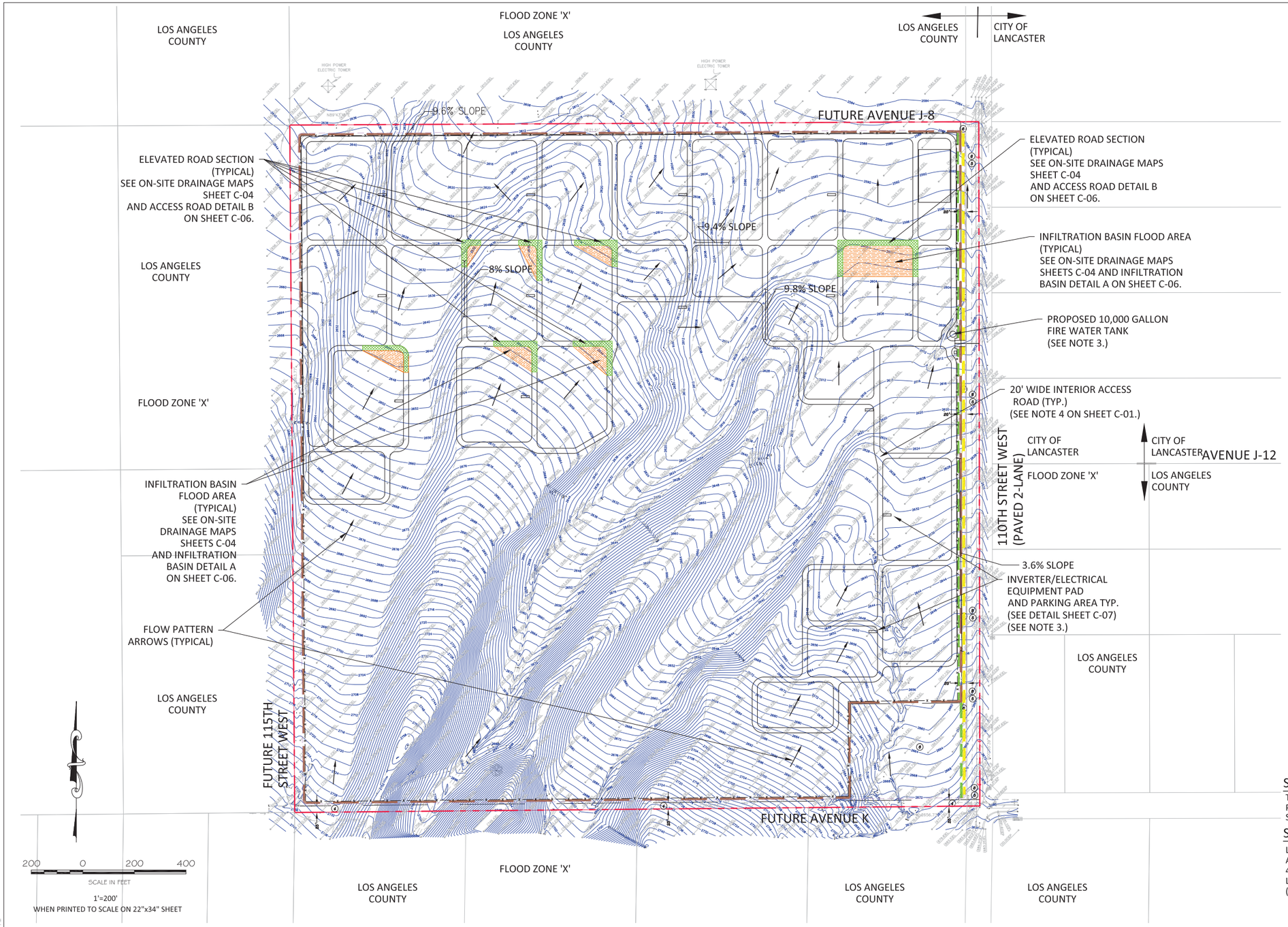
APPLICANT: Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 2
WESTERN ANTELOPE
BLUE SKY RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\CAD\PROJECTS\106-4336 SILVERADO POWER\SP LA-CUP_14-0324\P2-7\C-01-SITE-7-8.DWG
PLOT/UPDATE: Mar 24, 2014 11:22:5 AM



NOTES:

1. OVERALL DRAINAGE ACROSS SITE IS CURRENTLY FROM THE SOUTHWEST TO THE NORTHEAST, AS SHOWN ON THE SURFACE CONTOURS. TOPOGRAPHY/CONTOURS ARE BASED ON SURVEY DATA PROVIDED BY ALL VALLEY SURVEYING.

2. OVERALL EXISTING GRADING AND DRAINAGE PATTERN TO REMAIN UNCHANGED DURING AND AFTER CONSTRUCTION WITH THE EXCEPTION OF AREAS USED FOR DRAINAGE FEATURES. ELEVATED ROAD SECTIONS WILL BE USED TO CREATE INFILTRATION BASINS. FLOOD AREAS AND FLOW PATTERN ARROWS ARE SHOWN ON THIS SHEET AND SHEETS C-03 AND C-04.

3. EQUIPMENT PADS WILL BE GRADED AS REQUIRED PER MANUFACTURER SPECIFICATIONS.

LEGEND:

- POWER POLE
- GUY ANCHOR
- ELECTRIC BOX
- EDGE OF PAVEMENT
- SHRUB/TREE
- CONCRETE
- STOP SIGN
- MISC SIGN
- EP — EDGE OF PAVEMENT
- FL — FLOW LINE
- PL — PROPERTY LINE
- ℄ — CENTER LINE
- R/W — RIGHT OF WAY LINE
- FS — FINISH SURFACE
- (5) — EASEMENT (SEE SHEET G-02)
- ℄ — CENTERLINE
- L.F. — LINEAR FEET
- TYP. — TYPICAL
- PROPOSED FENCE LINE
- PROPERTY LINE (AFTER DEDICATIONS)
- PROPERTY LINE (CURRENT)
- PARCEL LINE
- INFILTRATION BASIN FLOOD AREA
- ELEVATED ROAD SECTION
- CONTOUR LINE (2' INTERVAL FROM ALL VALLEY SURVEYING)
- 10' WIDE VEGETATIVE BUFFER
- 10' WIDE SLOPE EASEMENT
- 12' WIDE EASEMENT FOR THE CALIFORNIA POPPY TRAIL

EARTHWORK QUANTITIES:

OVEREXCAVATION	=	28,700 CUBIC YARDS
CUT	=	18,500 CUBIC YARDS
FILL	=	18,500 CUBIC YARDS

CUT & FILL QUANTITIES INCLUDE INVERTER PADS, SUBSTATION/SWITCHYARD, BASINS, AND ELEVATED ROAD BED FOR DRAINAGE FEATURES.

OVEREXCAVATION QUANTITY INCLUDES ACCESSIBLE FIRE ROAD.

SURVEY INFORMATION:

TOPOGRAPHIC MAP AND 2' CONTOURING PREPARED BY ALL VALLEY SURVEYING, SEE TOPOGRAPHIC MAP SHEETS.

SURVEYOR:

LARRY E. JERNIGAN, PLS #5924
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA 93534
(661) 942-3639

BASIS OF BEARINGS:

SEE TOPOGRAPHIC MAP SHEETS (G-01 & G-02).

BENCHMARK:

SEE TOPOGRAPHIC MAP SHEETS (G-01 & G-02).

EASEMENTS:

SEE TOPOGRAPHIC MAP SHEET (G-02).

C-02

R2011-00798 (RCUP201100070)

REGISTERED PROFESSIONAL ENGINEER — JULIE ANN DELANEY — No.C54558 — CIVIL — STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

40MW AC Solar Photovoltaic Generation System

APN: 3267-015-001

SCH # 2012061068

Project Name: Project 2 Western Antelope Blue Sky Ranch
Project Address: 110th Street West & West Ave K Lancaster, CA 93536-7703 Los Angeles County, CA

DRAWING: Preliminary Grading & Drainage Plan

APPLICANT: Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

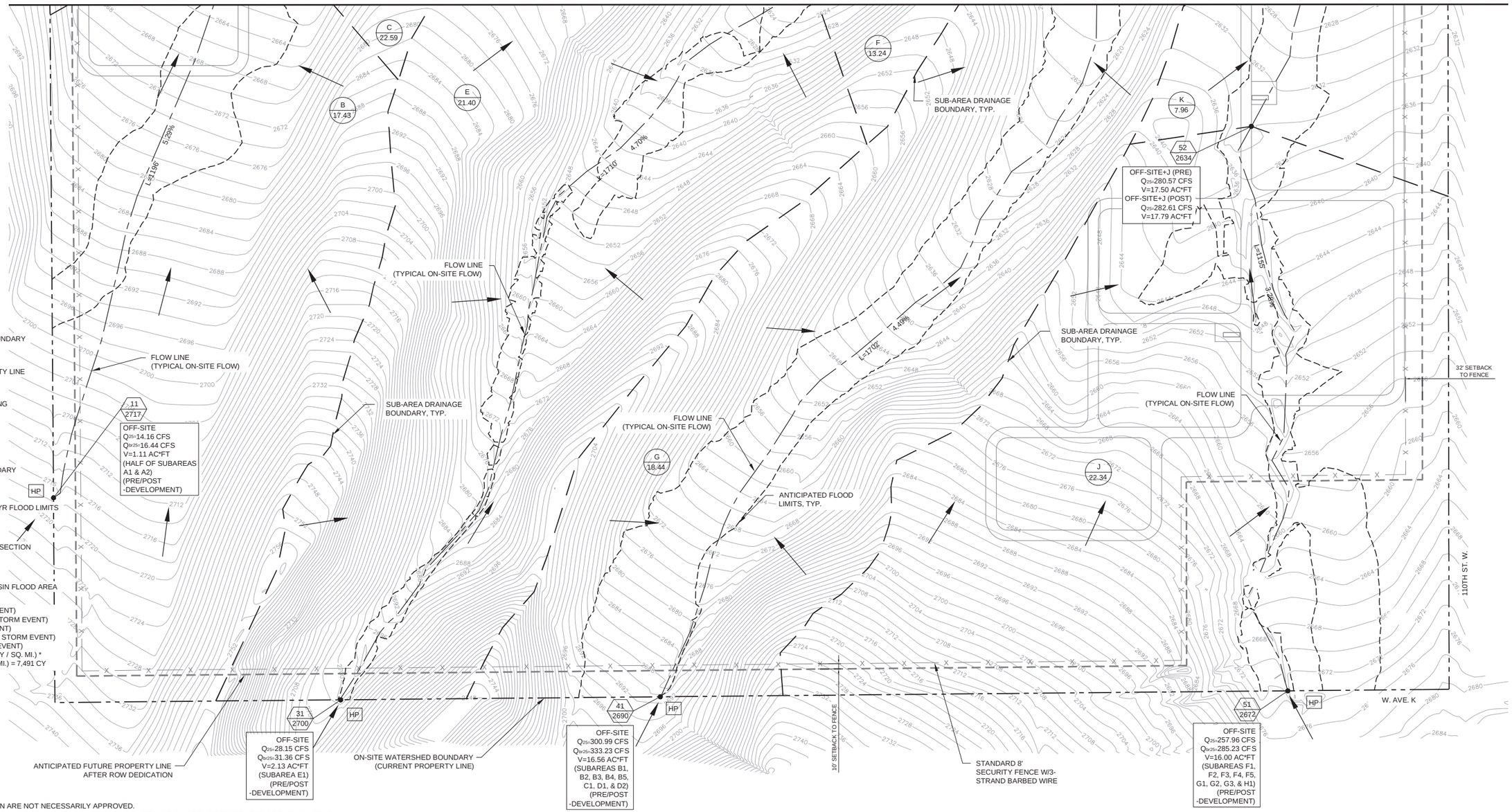
SILVERADO power

PROJECT 2
WESTERN ANTELOPE
BLUE SKY RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\CAD\PROJECTS\106-4338 SILVERADO POWER\SP LA-CUP_14-0324\P2-7\C-02-GRAD-7-8.DWG
PLOT/UPDATE: Mar 24, 2014 12:46:23 PM

MATCHLINE: SEE SHEET C-04



LEGEND:

XX / XX.X	SUBAREA ID / ACREAGE
XX / XXX	NODE ID / ELEVATION
HP	HIGH POINT
LP	LOW POINT
	WATERSHED BOUNDARY
	FUTURE PROPERTY LINE
X	SECURITY FENCING
	FLOW LINE
	SUB-AREA BOUNDARY
	ANTICIPATED 25-YR FLOOD LIMITS
	ELEVATED ROAD SECTION
	INFILTRATION BASIN FLOOD AREA

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Q_{br25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = (7,100CY / SQ. MI.) * (TOTAL WATERSHED AREA 1.055 SQ. MI.) = 7,491 CY

DRAINAGE CONCEPT NOTES:
1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
2) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3) APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTES).
4) AN OFFSITE DRAINAGE COVENANT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
5) A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
6) A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
7) BASIN SIZES ARE DEPENDENT ON THE VERIFICATION OF PERCOLATION RATES AND ARE SUBJECT TO CHANGE.
8) NOT WITHIN A FEMA ZONE A. WITHIN FEMA ZONE X, UNSHADED.
9) NOT WITHIN A COUNTY ADOPTED FLOODWAY.
10) ALL BASINS ARE PRIVATELY MAINTAINED.
11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATES (Q_{50}) INCREASED BY MAXIMUM OF 8.7%, THE VOLUMES (V_{50}) INCREASED BY A MAXIMUM OF 10.0%, THE DEPTHS INCREASED BY A MAXIMUM OF 7.1%, AND THE VELOCITIES INCREASED BY A MAXIMUM OF 3.1%. THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. SEE IMPACT ANALYSIS CALCULATIONS.

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____RCE NO:_____DATE_____
CHECKED BY: _____ DATE_____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

N

0 50 100 200
SCALE: 1":100' (ON FULL SIZE DWG.)

R2011-00798 (RCUP201100070) | C-03

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

40MW AC Solar Photovoltaic Generation System

APN:
3267-015-001

SCH # 2012061068

Project Name:
Project 2 Western Antelope Blue Sky Ranch
Project Address:
110th Street West & West Ave K
Lancaster, CA 93536-7703
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100070 ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 2
WESTERN ANTELOPE BLUE SKY RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\04546\35-04546-12001\SUPPORTDOCS\CALCS\HYDROLOGY\FINAL DESIGN\ONSITE HYDROLOGY C03.DWG
PLOT/UPDATE: Dec 6, 2013 11:45:20 AM

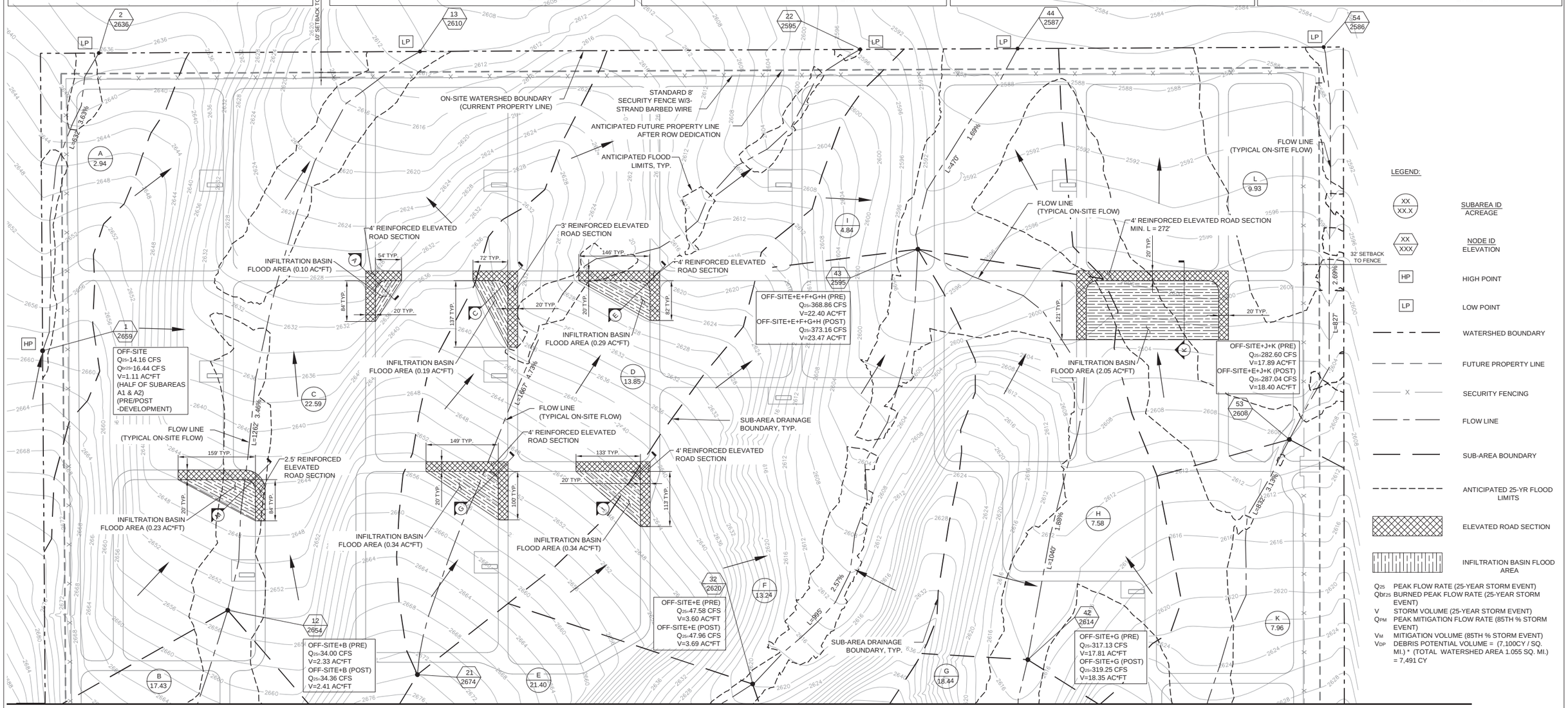
PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION (FOR ENTIRE SITE)
Q_{25}= 15.93 CFS	Q_{25}= 16.48 CFS	Q_{PM}=4.80 CFS
Qbr_{25}= 18.70 CFS	Qbr_{25}= 19.24 CFS	V_M=1.54 AC*FT
V= 1.27 AC*FT	V= 1.36 AC*FT	DELTA (FOR ENTIRE SITE)
		ΔQ_{25}=17.19 CFS
		ΔV_{25}=3.23 AC*FT

PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION (FOR ENTIRE SITE)
Q_{25}= 38.99 CFS	Q_{25}= 42.22 CFS	Q_{PM}=4.80 CFS
Qbr_{25}= 46.38 CFS	Qbr_{25}= 49.42 CFS	V_M=1.54 AC*FT
V= 3.46 AC*FT	V= 4.15 AC*FT	DELTA (FOR ENTIRE SITE)
		ΔQ_{25}=17.19 CFS
		ΔV_{25}=3.23 AC*FT

PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION (FOR ENTIRE SITE)
Q_{25}= 2.76 CFS	Q_{25}= 4.05 CFS	Q_{PM}=4.80 CFS
Qbr_{25}= 4.58 CFS	Qbr_{25}= 5.70 CFS	V_M=1.54 AC*FT
V= 0.66 AC*FT	V= 1.08 AC*FT	DELTA (FOR ENTIRE SITE)
		ΔQ_{25}=17.19 CFS
		ΔV_{25}=3.23 AC*FT

PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION (FOR ENTIRE SITE)
Q_{25}= 371.27 CFS	Q_{25}= 376.40 CFS	Q_{PM}=4.80 CFS
Qbr_{25}= 414.48 CFS	Qbr_{25}= 419.28 CFS	V_M=1.54 AC*FT
V= 22.64 AC*FT	V= 23.85 AC*FT	DELTA (FOR ENTIRE SITE)
		ΔQ_{25}=17.19 CFS
		ΔV_{25}=3.23 AC*FT

PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION (FOR ENTIRE SITE)
Q_{25}= 284.39 CFS	Q_{25}= 291.38 CFS	Q_{PM}=4.80 CFS
Qbr_{25}= 316.54 CFS	Qbr_{25}= 323.50 CFS	V_M=1.54 AC*FT
V= 18.34 AC*FT	V= 19.16 AC*FT	DELTA (FOR ENTIRE SITE)
		ΔQ_{25}=17.19 CFS
		ΔV_{25}=3.23 AC*FT



MATCHLINE: SEE SHEET C-03

DRAINAGE CONCEPT NOTES:

1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
2) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3) APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTES).
4) AN OFFSITE DRAINAGE COVENANT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
5) A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
6) A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
7) BASIN SIZES ARE DEPENDENT ON THE VERIFICATION OF PERCOLATION RATES AND ARE SUBJECT TO CHANGE.
8) NOT WITHIN A FEMA ZONE A. WITHIN FEMA ZONE X, UNSHADED.
9) NOT WITHIN A COUNTY ADOPTED FLOODWAY.
10) ALL BASINS ARE PRIVATELY MAINTAINED.
11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATES (Q_{50}) INCREASED BY MAXIMUM OF 8.7%, THE VOLUMES (V_{50}) INCREASED BY A MAXIMUM OF 10.0%, THE DEPTHS INCREASED BY A MAXIMUM OF 7.1%, AND THE VELOCITIES INCREASED BY A MAXIMUM OF 3.1%. THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. SEE IMPACT ANALYSIS CALCULATIONS.

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____RCE NO:_____DATE_____
CHECKED BY:_____DATE_____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

N

0 50 100 200
SCALE: 1":100' (ON FULL SIZE DWG.)

R2011-00798 (RCUP201100070) | C-04

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA

JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

40MW AC Solar Photovoltaic Generation System

APN: 3267-015-001

SCH # 2012061068

Project Name: Project 2 Western Antelope Blue Sky Ranch
Project Address: 110th Street West & West Ave K Lancaster, CA 93536-7703 Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100070 ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 2
WESTERN ANTELOPE BLUE SKY RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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PLOT/UPDATE: Dec 6, 2013 11:36:06 AM

HYDROLOGY RESULTS: (BASED ON LA FLOOD CONTROL TC CALCULATOR)

ON-SITE HYDROLOGY (PRE-DEVELOPMENT)

Project	Subarea	Area (acres)	%Imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre-ft)
Project 2	A	2.94	0.01	2	134	632	0.0363	2.3	30	0.60	0.10	0.11	0.19	0.34	0.35	0.06
Project 2	B	17.43	0.01	2	120	1196	0.0529	2.4	30	0.62	0.10	0.11	1.19	0.34	2.13	0.38
Project 2	C	22.59	0.01	2	134	1262	0.0346	2.4	30	0.61	0.10	0.11	1.52	0.34	2.72	0.48
Project 2	D	13.85	0.01	2	134	1667	0.0473	2.3	30	0.59	0.10	0.11	0.90	0.34	1.60	0.29
Project 2	E	21.40	0.01	2	120	1710	0.0470	2.4	30	0.62	0.10	0.11	1.46	0.34	2.62	0.46
Project 2	F	13.24	0.01	2	134	995	0.0257	2.3	30	0.59	0.10	0.11	0.86	0.34	1.53	0.27
Project 2	G	18.44	0.01	2	120	1702	0.0449	2.4	30	0.61	0.10	0.11	1.24	0.34	2.22	0.39
Project 2	H	7.58	0.01	2	134	1040	0.0188	2.3	30	0.58	0.10	0.11	0.49	0.34	0.88	0.16
Project 2	I	4.84	0.01	2	134	470	0.0169	2.2	30	0.57	0.10	0.11	0.30	0.34	0.54	0.10
Project 2	J	22.34	0.01	2	120	1155	0.0328	2.4	30	0.61	0.10	0.11	1.50	0.34	2.69	0.48
Project 2	K	7.96	0.01	2	134	832	0.0313	2.3	30	0.59	0.10	0.11	0.52	0.34	0.92	0.16
Project 2	L	9.93	0.01	2	134	827	0.0269	2.2	30	0.57	0.10	0.11	0.62	0.34	1.11	0.20
Project 2	A	2.94	0.01	5	134	632	0.0363	3.5	30	0.90	0.10	0.11	0.29	0.34	0.54	0.09
Project 2	B	17.43	0.01	5	120	1196	0.0529	3.6	24	1.03	0.33	0.34	6.10	0.34	7.41	0.67
Project 2	C	22.59	0.01	5	134	1262	0.0346	3.6	30	0.92	0.10	0.11	2.29	0.34	4.28	0.73
Project 2	D	13.85	0.01	5	134	1667	0.0473	3.4	30	0.89	0.10	0.11	1.36	0.34	2.53	0.43
Project 2	E	21.40	0.01	5	120	1710	0.0470	3.6	30	0.93	0.28	0.29	5.77	0.34	7.30	0.80
Project 2	F	13.24	0.01	5	134	995	0.0257	3.4	30	0.89	0.10	0.11	1.30	0.34	2.42	0.41
Project 2	G	18.44	0.01	5	120	1702	0.0449	3.6	30	0.92	0.27	0.28	4.75	0.34	6.07	0.67
Project 2	H	7.58	0.01	5	134	1040	0.0188	3.4	30	0.89	0.10	0.11	0.74	0.34	1.38	0.24
Project 2	I	4.84	0.01	5	134	470	0.0169	3.3	30	0.86	0.10	0.11	0.46	0.34	0.85	0.15
Project 2	J	22.34	0.01	5	120	1155	0.0328	3.6	29	0.93	0.28	0.29	6.03	0.34	7.62	0.82
Project 2	K	7.96	0.01	5	134	832	0.0313	3.4	30	0.89	0.10	0.11	0.78	0.34	1.45	0.25
Project 2	L	9.93	0.01	5	134	827	0.0269	3.3	30	0.86	0.10	0.11	0.94	0.34	1.75	0.30
Project 2	A	2.94	0.01	10	134	632	0.0363	4.3	30	1.10	0.10	0.11	0.36	0.34	0.68	0.11
Project 2	B	17.43	0.01	10	120	1196	0.0529	4.4	17	1.49	0.46	0.46	11.95	0.34	13.61	0.91
Project 2	C	22.59	0.01	10	134	1262	0.0346	4.4	30	1.12	0.10	0.11	2.78	0.34	5.31	0.89
Project 2	D	13.85	0.01	10	134	1667	0.0473	4.2	30	1.08	0.10	0.11	1.65	0.34	3.13	0.53
Project 2	E	21.40	0.01	10	120	1710	0.0470	4.4	24	1.26	0.40	0.41	11.06	0.34	12.88	1.09
Project 2	F	13.24	0.01	10	134	995	0.0257	4.2	30	1.08	0.10	0.11	1.57	0.34	2.99	0.50
Project 2	G	18.44	0.01	10	120	1702	0.0449	4.4	25	1.22	0.38	0.39	8.77	0.34	10.34	0.91
Project 2	H	7.58	0.01	10	134	1040	0.0188	4.2	30	1.08	0.10	0.11	0.90	0.34	1.71	0.29
Project 2	I	4.84	0.01	10	134	470	0.0169	4.1	30	1.05	0.10	0.11	0.56	0.34	1.06	0.18
Project 2	J	22.34	0.01	10	120	1155	0.0328	4.4	19	1.39	0.43	0.43	13.35	0.34	15.43	1.13
Project 2	K	7.96	0.01	10	134	832	0.0313	4.2	30	1.08	0.10	0.11	0.95	0.34	1.80	0.30
Project 2	L	9.93	0.01	10	134	827	0.0269	4.1	30	1.05	0.10	0.11	1.15	0.34	2.18	0.37
Project 2	A	2.94	0.01	25	134	632	0.0363	5.3	14	1.94	0.30	0.31	1.77	0.34	2.26	0.16
Project 2	B	17.43	0.01	25	120	1196	0.0529	5.4	13	2.07	0.55	0.55	19.84	0.34	21.89	1.22
Project 2	C	22.59	0.01	25	134	1262	0.0346	5.4	30	1.38	0.15	0.16	4.99	0.34	8.05	1.13
Project 2	D	13.85	0.01	25	134	1667	0.0473	5.2	30	1.33	0.14	0.15	2.76	0.34	4.58	0.66
Project 2	E	21.40	0.01	25	120	1710	0.0470	5.4	18	1.78	0.51	0.51	19.43	0.34	21.72	1.47
Project 2	F	13.24	0.01	25	134	995	0.0257	5.2	30	1.33	0.14	0.15	2.64	0.34	4.38	0.63
Project 2	G	18.44	0.01	25	120	1702	0.0449	5.4	18	1.75	0.50	0.50	16.14	0.34	18.11	1.25
Project 2	H	7.58	0.01	25	134	1040	0.0188	5.2	30	1.33	0.14	0.15	1.51	0.34	2.51	0.36
Project 2	I	4.84	0.01	25	134	470	0.0169	5.0	15	1.78	0.27	0.28	2.41	0.34	3.17	0.24
Project 2	J	22.34	0.01	25	120	1155	0.0328	5.4	15	1.91	0.53	0.53	22.61	0.34	25.11	1.50
Project 2	K	7.96	0.01	25	134	832	0.0313	5.2	26	1.42	0.17	0.18	2.03	0.34	3.13	0.39
Project 2	L	9.93	0.01	25	134	827	0.0269	5.0	30	1.29	0.13	0.14	1.79	0.34	3.07	0.45
Project 2	A	2.94	0.01	50	134	632	0.0363	6.0	12	2.37	0.37	0.38	2.65	0.34	3.21	0.19
Project 2	B	17.43	0.01	50	120	1196	0.0529	6.2	12	2.45	0.60	0.60	25.62	0.34	27.84	1.46
Project 2	C	22.59	0.01	50	134	1262	0.0346	6.1	21	1.85	0.28	0.29	12.12	0.34	15.79	1.40
Project 2	D	13.85	0.01	50	134	1667	0.0473	5.9	30	1.52	0.20	0.21	4.42	0.34	6.40	0.78
Project 2	E	21.40	0.01	50	120	1710	0.0470	6.2	15	2.21	0.57	0.57	26.96	0.34	29.55	1.75
Project 2	F	13.24	0.01	50	134	995	0.0257	5.9	19	1.88	0.29	0.30	7.47	0.34	9.63	0.80
Project 2	G	18.44	0.01	50	120	1702	0.0449	6.1	16	2.11	0.56	0.56	21.79	0.34	23.95	1.47
Project 2	H	7.58	0.01	50	134	1040	0.0188	5.9	23	1.72	0.26	0.27	3.52	0.34	4.69	0.45
Project 2	I	4.84	0.01	50	134	470	0.0169	5.7	12	2.25	0.35	0.36	3.92	0.34	4.81	0.29
Project 2	J	22.34	0.01	50	120	1155	0.0328	6.1	12	2.41	0.59	0.59	31.77	0.34	34.62	1.83
Project 2	K	7.96	0.01	50	134	832	0.0313	5.9	15	2.10	0.33	0.34	5.68	0.34	7.08	0.49
Project 2	L	9.93	0.01	50	134	827	0.0269	5.7	17	1.91	0.29	0.30	5.69	0.34	7.34	0.58

ON-SITE HYDROLOGY (POST-DEVELOPMENT)

Project	Subarea	Area (acres)	%Imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre-ft)
Project 2	A	2.94	0.10	2	134	632	0.0363	2.3	30	0.60	0.10	0.18	0.32	0.34	0.46	0.10
Project 2	B	17.43	0.03	2	120	1196	0.0529	2.4	30	0.62	0.10	0.12	1.30	0.34	2.23	0.41
Project 2	C	22.59	0.09	2	134	1262	0.0346	2.4	30	0.61	0.10	0.17	2.34	0.34	3.45	0.75
Project 2	D	13.85	0.10	2	134	1667	0.0473	2.3	30	0.59	0.10	0.18	1.47	0.34	2.11	0.47
Project 2	E	21.40	0.02	2	120	1710	0.0470	2.4	30	0.62	0.10	0.12	1.59	0.34	2.74	0.51
Project 2	F	13.24	0.06	2	134	995	0.0257	2.3	30	0.59	0.10	0.15	1.17	0.34	1.81	0.37
Project 2	G	18.44	0.10	2	120	1702	0.0449	2.4	30	0.61	0.10	0.18	2.02	0.34	2.92	0.64
Project 2	H	7.58	0.09	2	134	1040	0.0188	2.3	30	0.58	0.10	0.17	0.76	0.34	1.12	0.24
Project 2	I	4.84	0.10	2	134	470	0.0169	2.2	30	0.57	0.10	0.18	0.50	0.34	0.71	0.16
Project 2	J	22.34	0.05	2	120	1155	0.0328	2.4	30	0.61	0.10	0.14	1.91	0.34	3.05	0.61
Project 2	K	7.96	0.09	2	134	832	0.0313	2.3	30	0.59	0.10	0.17	0.80	0.34	1.17	0.25
Project 2	L	9.93	0.10	2	134	827	0.0269	2.2	30	0.57	0.10	0.18	1.02	0.34	1.46	0.32
Project 2	A	2.94	0.10	5	134	632	0.0363	3.5	28	0.93	0.10	0.18	0.49	0.34	0.73	0.15
Project 2	B	17.43	0.03	5	120	1196	0.0529	3.6	23	1.05	0.34	0.36	6.59	0.34	7.88	0.73
Project 2	C	22.59	0.09	5	134	1262	0.0346	3.6	30	0.92	0.10	0.17	3.53	0.34	5.37	1.13
Project 2	D	13.85	0.10	5	134	1667	0.0473	3.4	30	0.89	0.10	0.18	2.22	0.34	3.29	0.71
Project 2	E	21.40	0.02	5	120	1710	0.0470	3.6	30	0.93	0.28	0.29	5.77	0.34	7.29	0.85
Project 2	F	13.24	0.06	5	134	995	0.0257	3.4	30	0.89	0.10	0.15	1.77	0.34	2.83	0.56
Project 2	G	18.44	0.10	5	120	1702	0.0449	3.6	30	0.92	0.27	0.33	5.60	0.34	6.81	1.04
Project 2	H	7.58	0.09	5	134	1040	0.0188	3.4	30	0.89	0.10	0.17	1.15	0.34	1.74	0.37
Project 2	I	4.84	0.10	5	134	470	0.0169	3.3	27	0.90	0.10	0.18	0.78	0.34	1.16	0.24
Project 2	J	22.34	0.05	5	120	1155	0.0328	3.6	26	0.98	0.31	0.34	7.44	0.34	9.01	1.02
Project 2	K	7.96	0.09	5	134	832	0.0313	3.4	30	0.89	0.10	0.17	1.20	0.34	1.83	0.38
Project 2	L	9.93	0.10	5	134	827	0.0269	3.3	30	0.86	0.10	0.18	1.54	0.34	2.27	0.49
Project 2	A	2.94	0.10	10	134	632	0.0363	4.3	23	1.25	0.12	0.20	0.74	0.34	1.07	0.19
Project 2	B	17.43	0.03	10	120	1196	0.0529	4.4	17	1.49	0.46	0.47	12.21	0.34	13.83	0.97
Project 2	C	22.59	0.09	10	134	1262	0.0346	4.4	30	1.12	0.10	0.17	4.30	0.34	6.64	1.38
Project 2	D	13.85	0.10	10	134	1667	0.0473	4.2	30	1.08	0.10	0.18	2.69	0.34	4.04	0.86
Project 2	E	21.40	0.02	10	120	1710	0.0470	4.4	24	1.26	0.40	0.41	11.06	0.34	12.88	1.16
Project 2	F	13.24	0.06	10	134	995	0.0257	4.2	30	1.08	0.10	0.15	2.14	0.34	3.49	0.69
Project 2	G	18.44	0.10	10	120	1702	0.0449	4.4	23	1.27	0.40	0.45	10.54	0.34	12.00	1.37
Project 2	H	7.58	0.09	10	134	1040	0.0188	4.2	30	1.08	0.10	0.17	1.39	0.34	2.14	0.45
Project 2	I	4.84	0.10	10	134	470	0.0169	4.1	24	1.18	0.10	0.18	1.01	0.34	1.53	0.29
Project 2	J	22.34	0.05	10	120	1155	0.0328	4.4	19	1.39	0.43	0.45	13.97	0.34	15.96	1.36
Project 2	K	7.96	0.09	10	134	832	0.0313	4.2	30	1.08	0.10	0.17	1.46	0.34	2.25	0.47
Project 2	L	9.93	0.10	10	134	827	0.0269	4.1	30	1.05	0.10	0.18	1.88	0.34	2.81	0.60
Project 2	A	2.94	0.10	25	134	632	0.0363	5.3	12	2.08	0.32	0.38	2.32	0.34	2.80	0.25
Project 2	B	17.43	0.03	25	120	1196	0.0529	5.4	13	2.07	0.55	0.56	20.20	0.34	22.20	1.30
Project 2	C	22.59	0.09	25	134	1262	0.0346	5.4	27	1.45	0.18	0.24	7.86	0.34	10.78	1.74
Project 2	D	13.85	0.10	25	134	1667	0.0473	5.2	30	1.33	0.14	0.22	4.05	0.34	5.70	1.08
Project 2	E	21.40	0.02	25	120	1710	0.0470	5.4	18	1.78	0.51	0.52	19.81	0.34	22.05	1.56
Project 2	F	13.24	0.06	25	134	995	0.0257	5.2	28	1.38	0.15	0.20	3.65	0.34	5.36	0.87
Project 2	G	18.44	0.10	25	120	1702	0.0449	5.4	17	1.80	0.51	0.55	18.26	0.34	20.06	1.79
Project 2	H	7.58	0.09	25	134	1040	0.0188	5.2	28	1.38	0.15	0.22	2.30	0.34	3.25	0.56
Project 2	I	4.84	0.10	25	134	470	0.0169	5.0	13	1.91	0.29	0.35	3.24	0.34	3.97	0.38
Project 2	J	22.34	0.05	25	120	1155	0.0328	5.4	14	1.97	0.54	0.56	24.65	0.34	27.08	1.79
Project 2	K	7.96	0.09	25	134	832	0.0313	5.2	17	1.74	0.26	0.32	4.43	0.34	5.57	0.61
Project 2	L	9.93	0.10	25	134	827	0.0269	5.0	20	1.56	0.21	0.28	4.34	0.34	5.66	0.76
Project 2	A	2.94	0.10	50	134	632	0.0363	6.0	10	2.58	0.40	0.45	3.41	0.34	3.95	0.29
Project 2	B	17.43	0.03	50	120	1196	0.0529	6.2	11	2.55	0.61	0.62	27.56	0.34	29.75	1.52
Project 2	C	22.59	0.09	50	134	1262	0.0346	6.1	19	1.94	0.30	0.35	15.34	0.34	18.85	2.09
Project 2	D	13.85	0.10	50	134	1667	0.0473	5.9	23	1.72	0.26	0.32	7.62	0.34	9.57	1.29
Project 2	E	21.40	0.02	50	120	1710	0.0470	6.2	15	2.21	0.57	0.58	27.43	0.34	29.96	1.86
Project 2	F	13.24	0.06	50	134	995	0.0257	5.9	18	1.93	0.30	0.34	8.69	0.34	10.77	1.06
Project 2	G	18.44	0.10	50	120	1702	0.0449	6.1	15	2.17	0.57	0.60	24.01	0.34	26.00	2.09
Project 2	H	7.58	0.09	50	134	1040	0.0188	5.9	19	1.88	0.29	0.34	4.85	0.34	6.00	0.68
Project 2	I	4.84	0.10	50	134	470	0.0169	5.7	11	2.35	0.37	0.42	4.78	0.34	5.61	0.44
Project 2	J	22.34	0.05	50	120	1155	0.0328	6.1	12	2.41	0.59	0.61	32.84	0.34	35.53	2.15
Project 2	K	7.96	0.09	50	134	832	0.0313	5.9	14	2.17	0.34	0.39	6.74	0.34	8.06	0.72
Project 2	L	9.93	0.10	50	134	827	0.0269	5.7	15	2.03	0.31	0.37	7.46	0.34	9.03	0.90
Project 2	A	2.94	0.10	MIT.	134	632	0.0363	0.75	30	0.19	0.10	0.18	0.10	0.34	0.13	0.03
Project 2	B	17.43	0.03	MIT.	120	1196	0.0529	0.75	30	0.19	0.10	0.12	0.40	0.34	0.59	0.13
Project 2	C	22.59	0.09	MIT.	134	1262	0.0346	0.75	30	0.19	0.10	0.17	0.73	0.34	0.97	0.24
Project 2	D	13.85	0.10	MIT.	134	1667	0.0473	0.75	30	0.19	0.10	0.18	0.47	0.34	0.62	0.15
Project 2	E	21.40	0.02	MIT.	120	1710	0.0470	0.75	30	0.19	0.10	0.12	0.49	0.34	0.73	0.16
Project 2	F	13.24	0.06	MIT.	134	995	0.0257	0.75	30	0.19	0.10	0.15	0.38	0.34	0.52	0.12
Project 2	G	18.44	0.10	MIT.	120	1702	0.0449	0.75	30	0.19	0.10	0.18	0.63	0.34	0.82	0.20
Project 2	H	7.58	0.09	MIT.	134	1040	0.0188	0.75	30	0.19	0.10	0.17	0.24	0.34	0.32	0.08
Project 2	I	4.84	0.10	MIT.	134	470	0.0169	0.75	30	0.19	0.10	0.18	0.17	0.34	0.22	0.05
Project 2	J	22.34	0.05	MIT.	120	1155	0.0328	0.75	30	0.19	0.10	0.14	0.59	0.34	0.84	0.19
Project 2	K	7.96	0.09	MIT.	134	832	0.0313	0.75	30	0.19	0.10	0.17	0.26	0.34	0.34	0.08
Project 2	L	9.93	0.10	MIT.	134	827	0.0269	0.75	30	0.19	0.10	0.18	0.34	0.34	0.44	0.11

Incremental Flow and Volume Increase for Various Storm Events

Storm Event	Pre-Q (cfs)	Post-Q (cfs)	Delta-Q (cfs)	Pre-V (acre-ft)	Post-V (acre-ft)	Delta-V (acre-ft)
2	10.79	15.2	4.41	3.43	4.83	1.40
5	30.81	38.08	7.27	5.56	7.67	2.11
10	55.05	63.39	8.34	7.21	9.79	2.58
25	97.92	115.11	17.19	9.46	12.69	3.23
50	151.61	170.73	19.12	11.49	15.09	3.60

NOTE: FOR INFILTRATION BASIN MITIGATION VOLUME, SUM MIT. FREQUENCY VOLUMES UNDER POST-DEVELOPMENT TABLE. V_{PM}=1.54 AC*FT.

DELTA QUANTITIES FOR DRAINAGE AREA A:
ΔQ25 = 2.32 - 1.77 = 0.55 CFS
ΔV25 = 0.25 - 0.16 = 0.09 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA B:
ΔQ25 = 20.20 - 19.84 = 0.36 CFS
ΔV25 = 1.30 - 1.22 = 0.08 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA C
ΔQ25 = 7.86 - 4.99 = 2.87 CFS
ΔV25 = 1.74 - 1.13 = 0.61 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA D
ΔQ25 = 4.05 - 2.76 = 1.29 CFS
ΔV25 = 1.08 - 0.66 = 0.42 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA E
ΔQ25 = 19.81 - 19.43 = 0.38 CFS
ΔV25 = 1.56 - 1.47 = 0.09 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA F
ΔQ25 = 3.65 - 2.64 = 1.01 CFS
ΔV25 = 0.87 - 0.63 = 0.24 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA G
ΔQ25 = 18.26 - 16.14 = 2.12 CFS
ΔV25 = 1.79 - 1.25 = 0.54 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA H
ΔQ25 = 2.30 - 1.51 = 0.79 CFS
ΔV25 = 0.56 - 0.36 = 0.20 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA I
ΔQ25 = 3.24 - 2.41 = 0.83 CFS
ΔV25 = 0.38 - 0.24 = 0.14 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA J
ΔQ25 = 24.65 - 22.61 = 2.04 CFS
ΔV25 = 1.79 - 1.50 = 0.29 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA K
ΔQ25 = 4.43 - 2.03 = 2.40 CFS
ΔV25 = 0.61 - 0.39 = 0.22 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA L
ΔQ25 = 4.34 - 1.79 = 2.55 CFS
ΔV25 = 0.76 - 0.45 = 0.31 AC*FT

TOTAL DELTA QUANTITIES
ΔQ25 = 17.19 CFS
ΔV25 = 3.23 AC*FT

NOTE: DUE TO THE LID Δ QUANTITIES ABOVE BEING GREATER THAN THE MITIGATION QUANTITIES (Q_{PM} AND V_{PM}) THEY REPRESENT THE WORST CASE SCENARIO BETWEEN THE PRE-/POST DEVELOPMENT CONDITIONS AND THEREFORE SHALL BE USED FOR SIZING THE INFILTRATION BASINS.

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:________________RCE NO:________________DATE______________
CHECKED BY:________________DATE______________
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00798 (RCUP201100070) C-05

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA

JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

40MW AC Solar Photovoltaic Generation System

APN:
3267-015-001

SCH # 2012061068

Project Name:
Project 2 Western Antelope Blue Sky Ranch
Project Address:
110th Street West & West Ave K
Lancaster, CA 93536-7703
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100070 ON-SITE DRAINAGE MAP

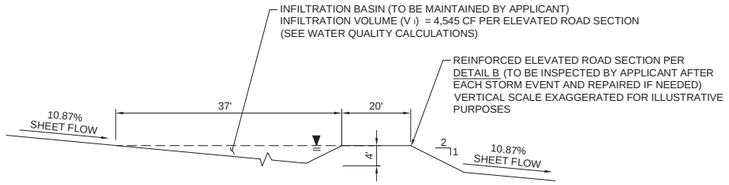
APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 2
WESTERN ANTELOPE
BLUE SKY RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\04546\135-04546-12001\SUPPORTDOCS\CALCS\HYDROLOGY\7\FINAL DESIGN\ONSITE HYDROLOGY C05.DWG PLOT/UPDATE: Nov 27, 2013 1:28:47 PM



A INFILTRATION BASIN DETAIL
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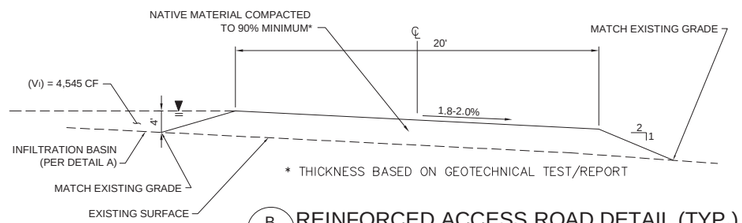

B REINFORCED ACCESS ROAD DETAIL (TYP.)
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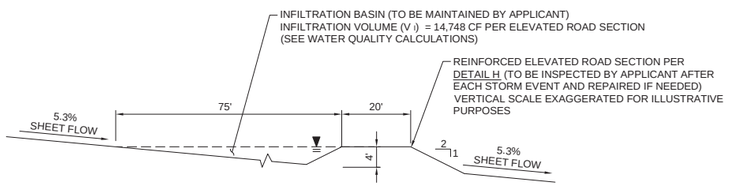

G INFILTRATION BASIN DETAIL
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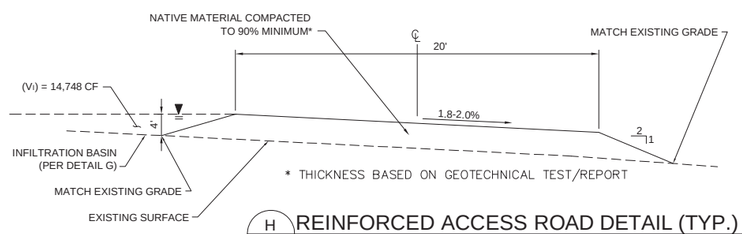

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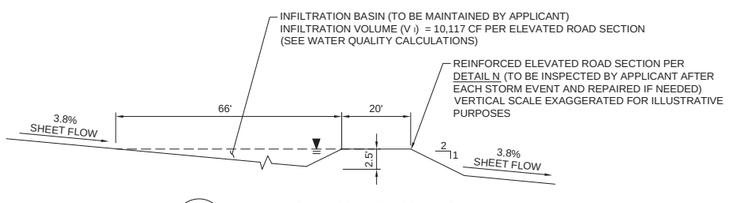

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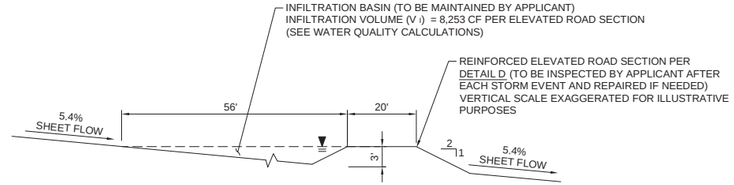

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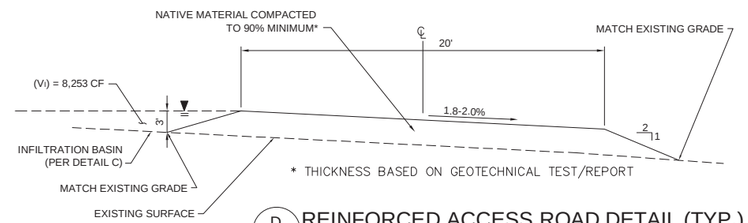

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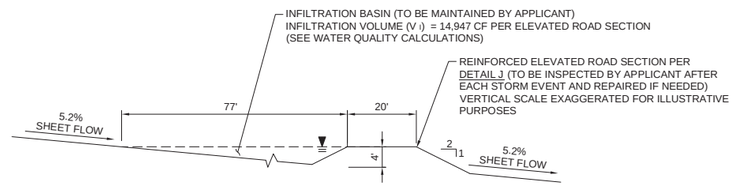

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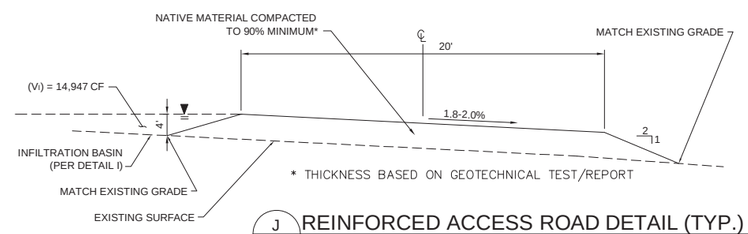

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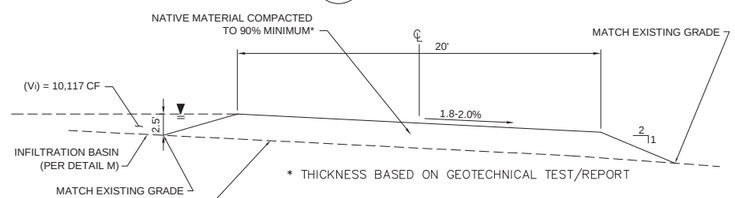

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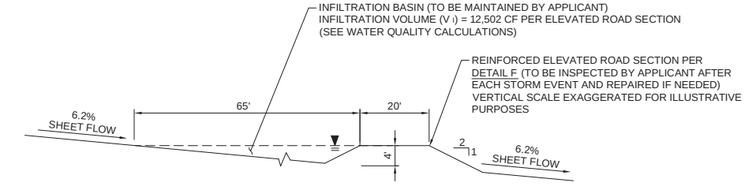

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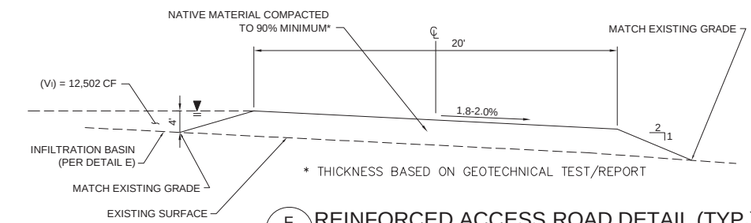

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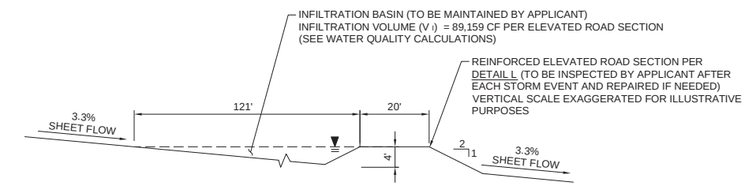

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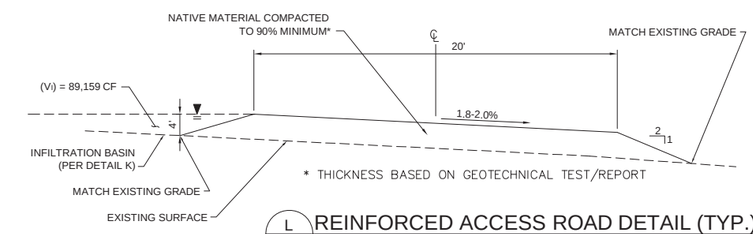

L REINFORCED ACCESS ROAD DETAIL (TYP.)
SCALE: NTS

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO: _____ DATE _____
CHECKED BY: _____ DATE _____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00798 (RCUP201100070) | C-06

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
JOSEPH E. DIETZ
No. 67032
EXP: 9-30-14
CIVIL
STATE OF CALIFORNIA

JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

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Solar PV System Summary

40MW AC Solar Photovoltaic Generation System

APN:
3267-015-001

SCH # 2012061068

Project Name:
Project 2 Western Antelope Blue Sky Ranch
Project Address:
110th Street West & West Ave K
Lancaster, CA 93536-7703
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID
FOR CUP 201100070
ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 2
WESTERN ANTELOPE
BLUE SKY RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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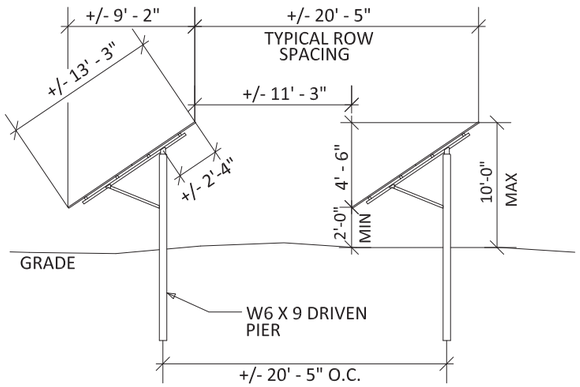
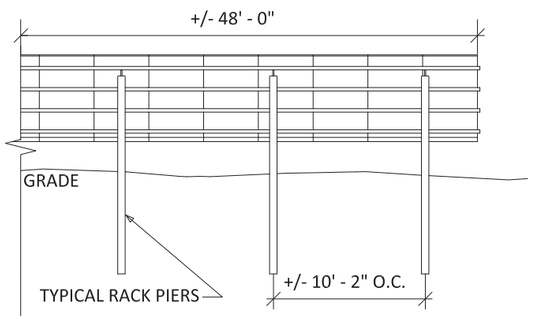


TYPICAL SOLAR ARRAY RACK DETAIL AND END ELEVATION

NOT TO SCALE



SOLAR ARRAY RACK DETAIL ELEVATION

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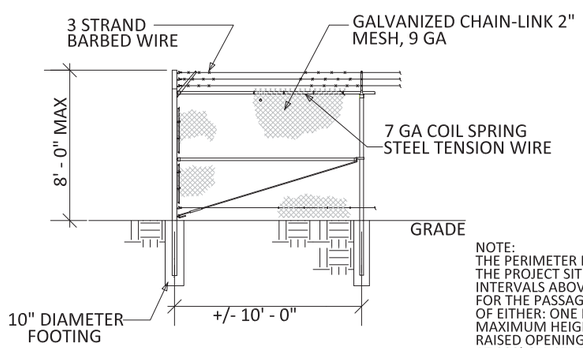
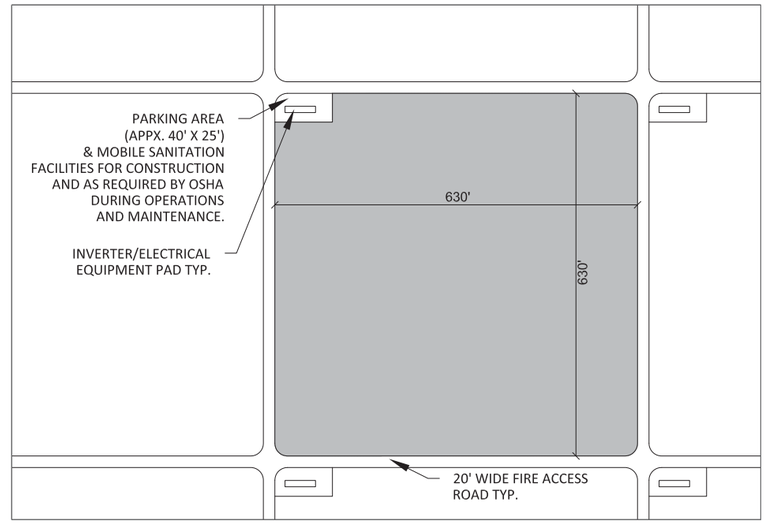


NOTE:
THE PERIMETER FENCING SURROUNDING THE PROJECT SITE WILL BE RAISED AT REGULAR INTERVALS ABOVE GROUND LEVEL TO ALLOW FOR THE PASSAGE OF WILDLIFE TO THE LESSER OF EITHER: ONE FOOT ABOVE GRADE OR TO THE MAXIMUM HEIGHT ALLOWED BY THE PUC. RAISED OPENINGS WILL BE 50' WIDE SPACED AT 200' ON-CENTER.

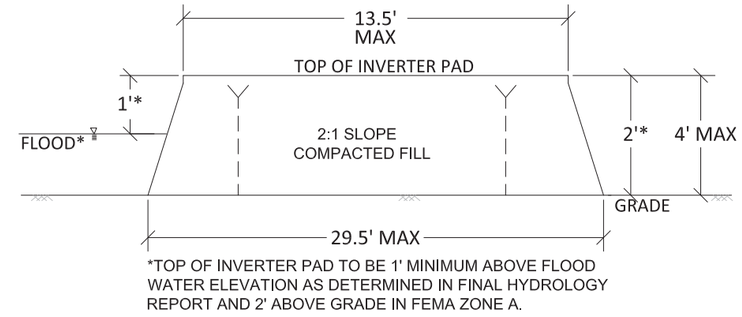
CHAIN LINK SECURITY FENCE ELEVATION

NOT TO SCALE



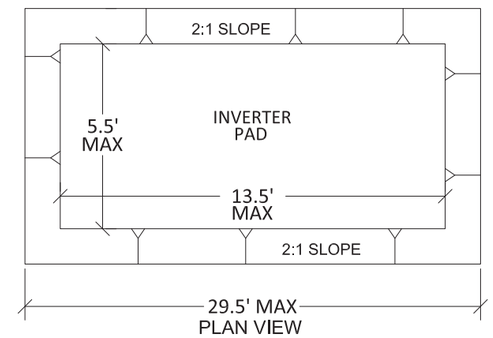
ARRAY BLOCK DETAIL (TYPICAL)

NOT TO SCALE



*TOP OF INVERTER PAD TO BE 1' MINIMUM ABOVE FLOOD WATER ELEVATION AS DETERMINED IN FINAL HYDROLOGY REPORT AND 2' ABOVE GRADE IN FEMA ZONE A.

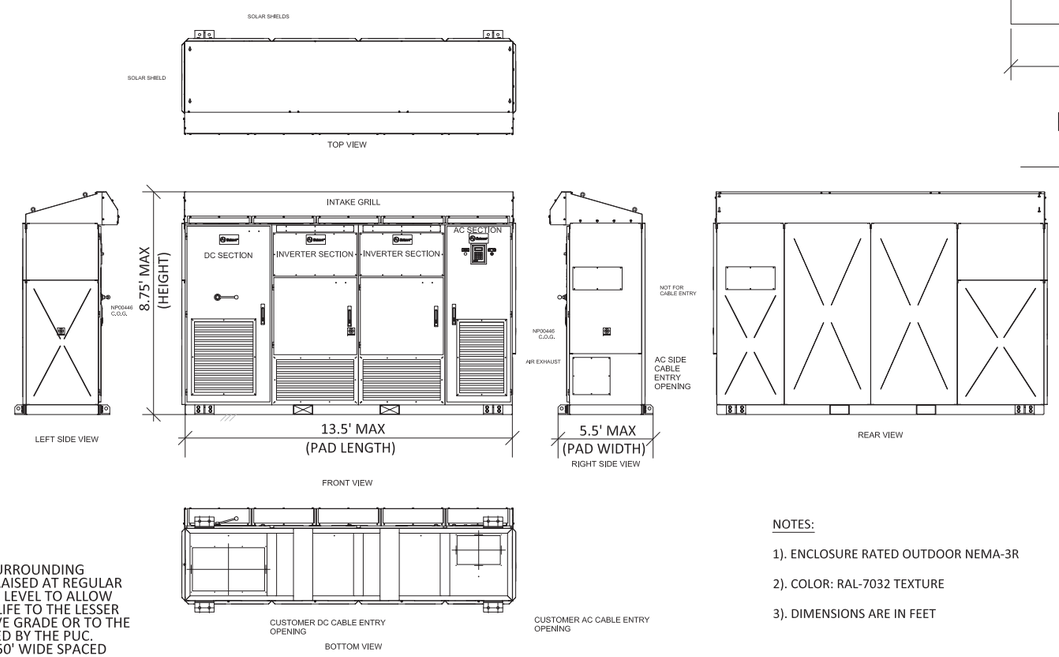
ELEVATION VIEW



PLAN VIEW

RAISED INVERTER PAD DETAILS FOR FLOOD AREAS AS NEEDED

NOT TO SCALE



NOTES:

1). ENCLOSURE RATED OUTDOOR NEMA-3R

2). COLOR: RAL-7032 TEXTURE

3). DIMENSIONS ARE IN FEET

INVERTER PAD DETAILS (TYPICAL)

NOT TO SCALE

C-07

R2011-00798 (RCUP201100070)

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

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Solar PV System Summary

40MW AC Solar Photovoltaic Generation System

APN:
3267-015-001

SCH # 2012061068

Project Name:
Project 2 Western Antelope Blue Sky Ranch
Project Address:
110th Street West & West Ave K
Lancaster, CA 93536-7703
Los Angeles County, CA

DRAWING: DETAIL SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 2
WESTERN ANTELOPE BLUE SKY RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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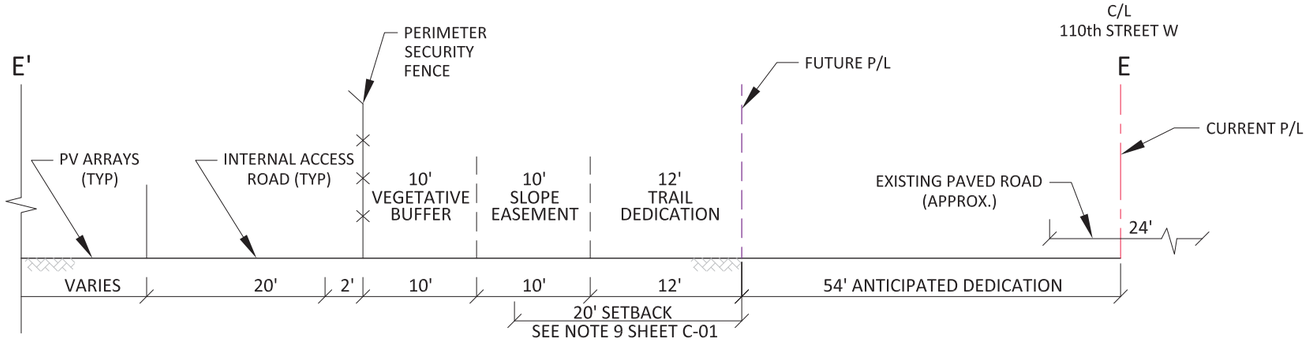

SECTION E' - E

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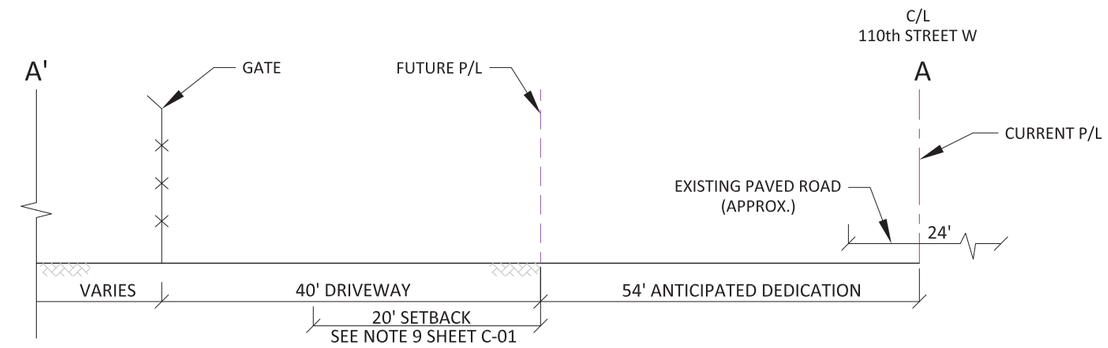

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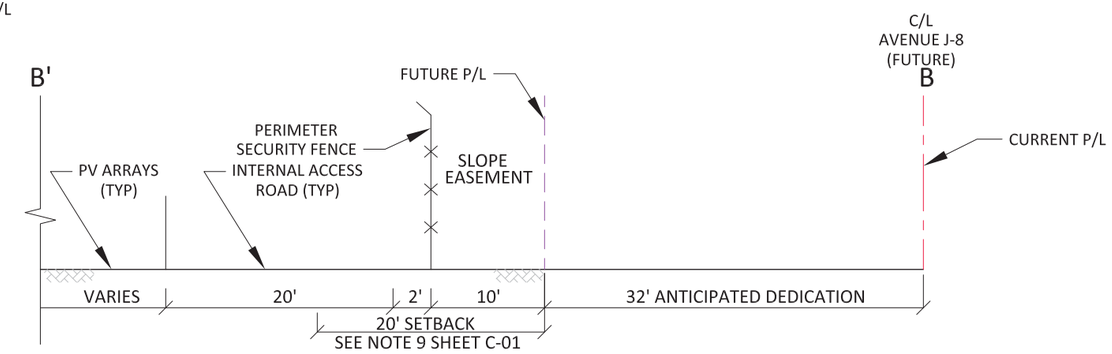

SECTION B' - B

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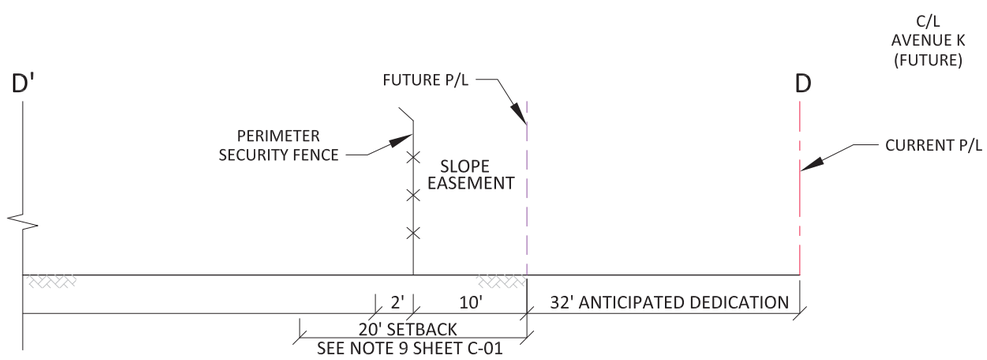

SECTION D' - D

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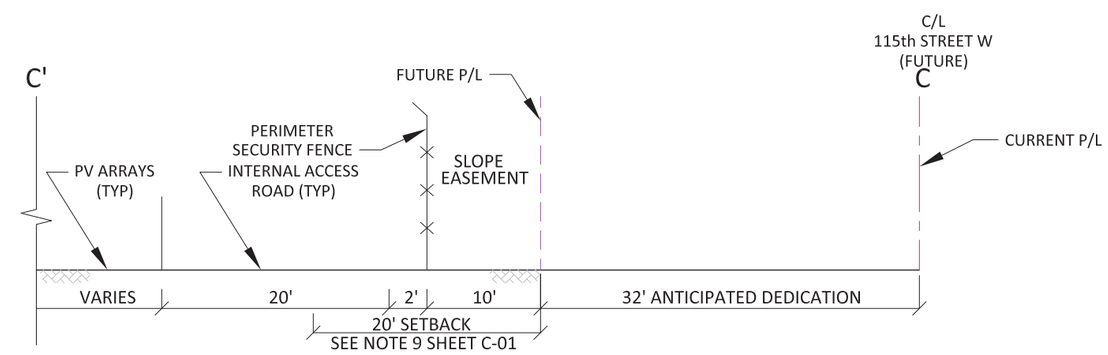

SECTION C' - C

NOT TO SCALE

C-08

R2011-00798 (RCUP201100070)

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.

17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

40MW AC Solar Photovoltaic Generation System

APN: 3267-015-001

SCH # 2012061068

Project Name:
Project 2 Western Antelope Blue Sky Ranch
Project Address:
110th Street West & West Ave K
Lancaster, CA 93536-7703
Los Angeles County, CA

DRAWING: SECTION SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 2
WESTERN ANTELOPE
BLUE SKY RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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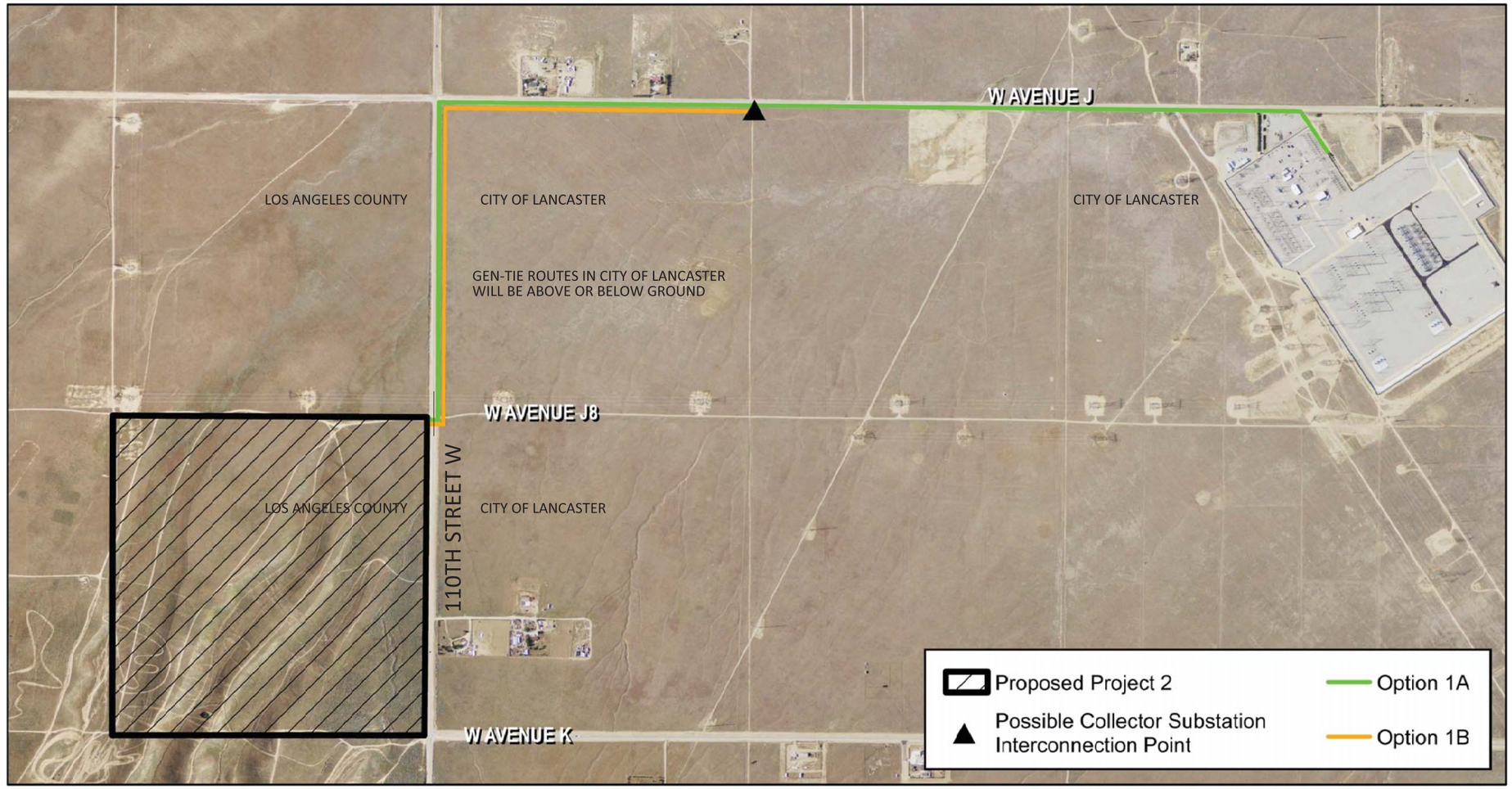

NOTES:

1. ALL GEN-TIE OPTIONS SHOWN ARE NEW, WITH NO TIE-INS TO EXISTING GEN-TIES.
2. GEN-TIE OPTIONS WITHIN LOS ANGELES COUNTY LIMITS/JURISDICTION WILL BE UNDERGROUND.
3. GEN-TIE OPTIONS WITHIN CITY OF LANCASTER LIMITS/JURISDICTION WILL BE UNDERGROUND OR ABOVE GROUND.

GEN-TIE ROUTE OPTIONS

NOT TO SCALE

C-09

R2011-00798 (RCUP201100070)

REGISTERED PROFESSIONAL ENGINEER
JULIE ANN DELANEY
No.C54558
CIVIL
STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
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Solar PV System Summary

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Project Address:
110th Street West & West Ave K
Lancaster, CA 93536-7703
Los Angeles County, CA

DRAWING: GEN-TIE ROUTE OPTIONS

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 2
WESTERN ANTELOPE
BLUE SKY RANCH
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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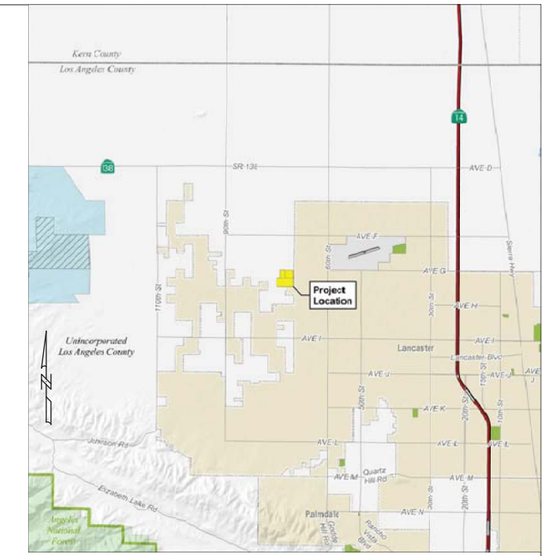
LOCATION MAP
NOT TO SCALE

PROJECT 3 AMERICAN SOLAR GREENWORKS

LOS ANGELES COUNTY, CALIFORNIA



VICINITY MAP
NOT TO SCALE

DRAWING INDEX

DRAWING NO.	TITLE
T-01	TITLE SHEET
G-01	TOPOGRAPHIC MAP
G-02	TOPOGRAPHIC MAP
C-01	SITE PLAN
C-02	GRADING PLAN
C-03	ON-SITE DRAINAGE MAP
C-04	ON-SITE DRAINAGE MAP
C-05	ON-SITE DRAINAGE MAP
C-06	DETAIL SHEET
C-07	SECTION SHEET

SURVEY INFORMATION:

TOPOGRAPHIC MAP AND 1' CONTOURING PREPARED BY ALL VALLEY SURVEYING.
BENCHMARK AND BASIS OF BEARINGS SHOWN ON TOPOGRAPHIC MAP, DRAWING G-01 & G-02.

SURVEYOR:

LARRY E. JERNIGAN, PLS #5924
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA 93534
(661) 942-3639

T-01
R2011-00799 (RCUP201100071)

P:\CAD\PROJECTS\106-4336 SILVERADO POWER\SP LA-CUP_14-032\V3-R\T-01-TITLE-R.DWG
PLOT/UPDATE: Mar 20, 2014 2:27:36 PM

REGISTERED PROFESSIONAL ENGINEER
JULIE ANN DELANEY
No.C54558
CIVIL
STATE OF CALIFORNIA

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

35MW AC Solar Photovoltaic Generation System
APNs 3268-018-002
3268-018-035
SCH # 2012061068

Project Name:
Project 3 American Solar Greenworks

Project Address:
W Ave. G & 70th St. W
Los Angeles County, CA

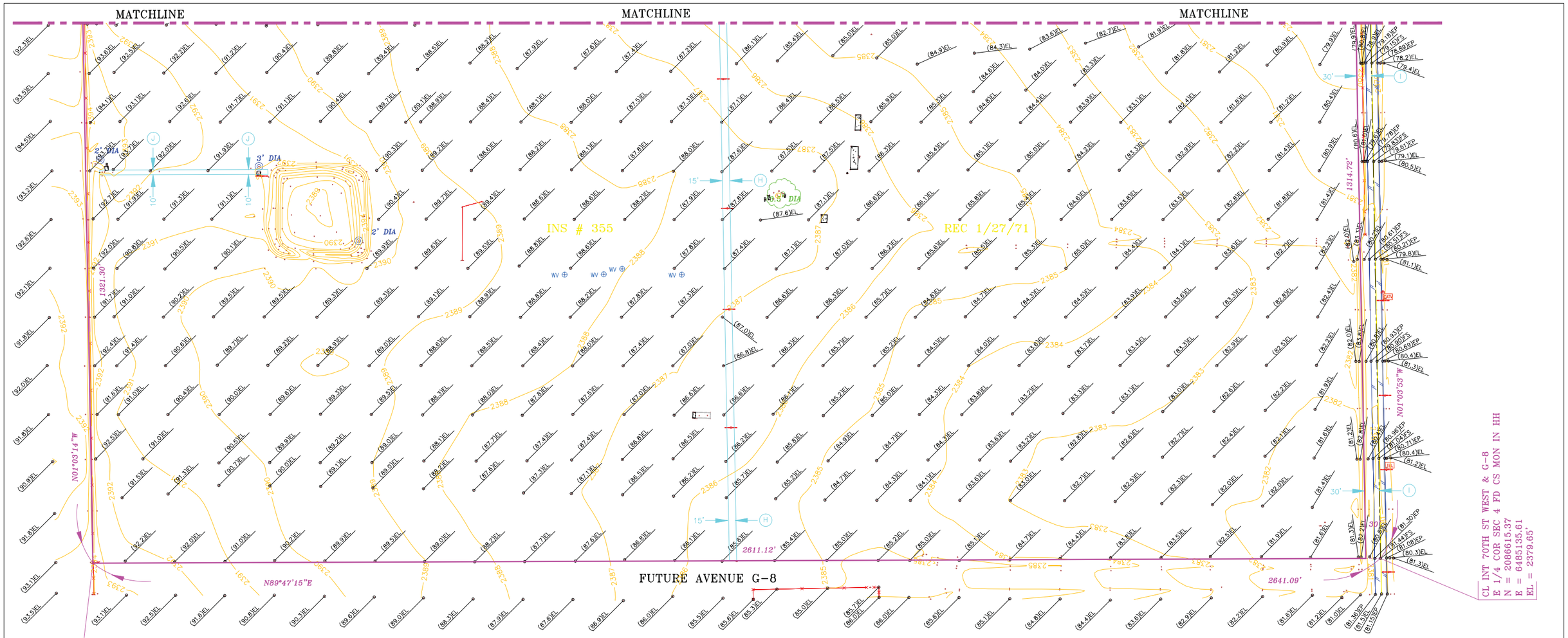
DRAWING: TITLE SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 3
AMERICAN SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main



SYMBOL LEGEND

- TELE — TELEPHONE BOX
- CATV — CABLE TV BOX
- POWER POLE
- GUY ANCHOR
- ELEC — ELECTRIC BOX
- GP — GUARD POST
- WV — WATER VALVE
- CONCRETE STANDPIPE
- TEL — TELEPHONE BOX
- MB — MAILBOX
- FENCE
- EDGE OF PAVEMENT
- WALL
- CONCRETE
- TREE
- SLB — STREET LIGHT BOX
- STREET LIGHT
- TSB — TRAFFIC SIGNAL BOX
- STREET — STREET SIGN
- STOP — STOP SIGN
- SPEED — SPEED LIMIT SIGN
- EP — EDGE OF PAVEMENT
- CLF — CHAIN-LINK FENCE
- PL — PROPERTY LINE
- CL — CENTER LINE
- R/W — RIGHT OF WAY LINE
- FS — FINISH SURFACE

(A) – 5' ELECTRIC LINE EASEMENT BK 6063 PG 32 OF DEEDS

(B) – 30' ROAD EASEMENT (70TH ST W) TO THE COUNTY OF LOS ANGELES BK 4738, PG 306 O.R.

(C) – 10' ROAD EASEMENT (AVE "G" & 70TH ST W) TO THE COUNTY OF LOS ANGELES INS 87-1178477

(D) – OFFER TO DEDICATE 32' ROAD EASEMENT (AVE "G" & 75TH ST W) TO THE COUNTY OF LOS ANGELES INS# 87-1178478

(E) – 40' ROAD EASEMENT (AVE G) TO THE COUNTY OF LOS ANGELES INS# 3716, REC 2/17/55 O.R.

(F) – ELECTRIC LINE EASEMENT WITHIN ROAD R/W NEAR INTERSECTION OF AVE G & 70TH ST WEST INS# 4118, REC 4/24/56 O.R.

(G) – DRAINAGE ACCEPTANCE INS# 82-1178487

(H) – 5' AND 15' ELECTRIC LINE EASEMENT, BK 6057 PG 25 OF DEEDS

(I) – 30' ROAD EASEMENT (70TH ST WEST) TO THE COUNTY OF LOS ANGELES, BK 6187, PG 65, O.R.

(J) – 10' ELECTRIC LINE EASEMENT, BK 42274, PG 90 O.R.

EASEMENT INFORMATION FROM :
FIRST AMERICAN TITLE COMPANY
TITLE REPORTS:
NCS-454444-ONT1(9/8/10)
NCS-454425-ONT1(9/5/10)
NCS-468215-SD(12/17/10)

DATUM STATEMENT
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, (CCS83) ZONE V, 1983 NORTH AMERICAN DATUM, 1991.35 EPOCH ADJUSTMENT. COORDINATES SHOWN ARE IN U.S. SURVEY FEET. ALL DISTANCES SHOWN ARE GRID DISTANCES. TO OBTAIN A GROUND DISTANCE, DIVIDE THE GRID DISTANCE BY 0.999847886. COMBINATION FACTOR IS PROJECT BASED.

BASIS OF BEARING	BENCH MARK
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE V, NAD 83, EPOCH 1991.35, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS), EW7110 AND EW7125, BEING NORTH 00°10'12" EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE NATIONAL GEODETIC SURVEY	LOS ANGELES COUNTY BENCHMARK L2273, LANCASTER 1998 ADJUSTMENT, NAVD 1988, ELEVATION= 2387.380 FEET CS MON IN WELL 450MM DN @ C/L INT 75TH ST W & AVE G MKD (1/4 COR 33, 4, R13W, T8N, R7N)

SCALE
HORIZ: 1"= 100'

PROFESSIONAL LAND SURVEYOR
LARRY E. JERNIGAN
No. 5924
EXP 12-31-12
STATE OF CALIFORNIA

ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA. 93534
(661) 942-3639

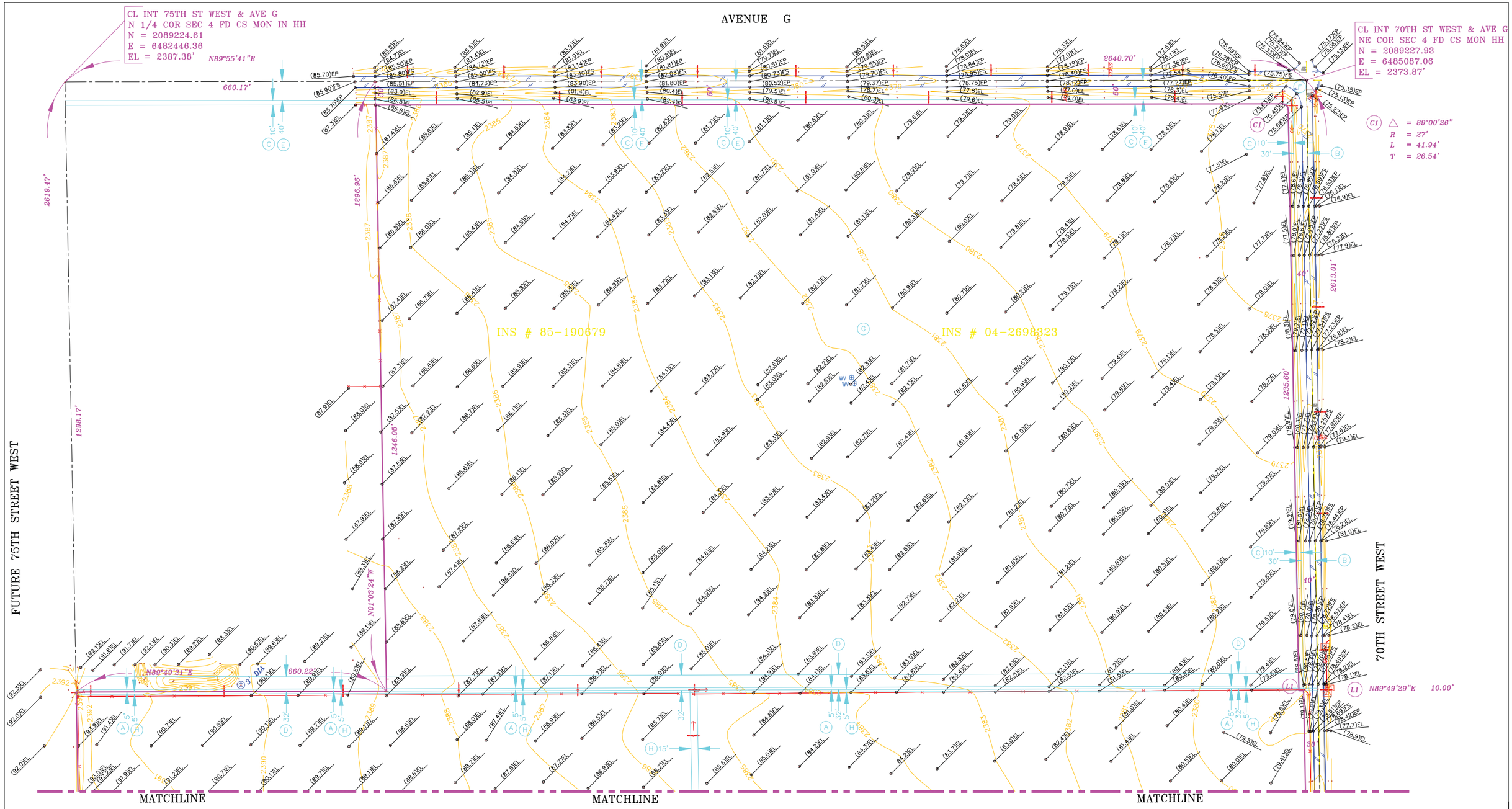
NO.	REVISION	BY	APPR.	DATE
1				
2				
3				

SHEET 1/2 | SHEET G-01

TOPOGRAPHIC MAP
AVENUE G & 70TH STREET WEST
ANTELOPE VALLEY
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

DATE OF SURVEY 4/20/12

COUNTY PLAN CHECK NUMBER 2011-00833(RCUP201100079)



DATUM STATEMENT
COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, (CCS83) ZONE V, 1983 NORTH AMERICAN DATUM, 1991.35 EPOCH ADJUSTMENT. COORDINATES SHOWN ARE IN U.S. SURVEY FEET. ALL DISTANCES SHOWN ARE GRID DISTANCES. TO OBTAIN A GROUND DISTANCE, DIVIDE THE GRID DISTANCE BY 0.999847886. COMBINATION FACTOR IS PROJECT BASED.

BASIS OF BEARING	BENCH MARK
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE V, NAD 83, EPOCH 1991.35, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS), EW7110 AND EW7125, BEING NORTH 00°10'12" EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE NATIONAL GEODETIC SURVEY	LOS ANGELES COUNTY BENCHMARK L2273, LANCASTER 1998 ADJUSTMENT, NAVD 1988, ELEVATION= 2387.380 FEET CS MON IN WELL 450MM DN @ C/L INT 75TH ST W & AVE G MKD (1/4 COR 33, 4, R13W, T8N, R7N)

SCALE
HORIZ: 1"= 100'

PROFESSIONAL LAND SURVEYOR
LARRY E JERNIGAN
No. 5924
EXP 12-31-12
STATE OF CALIFORNIA

ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA. 93534
(661) 942-3639

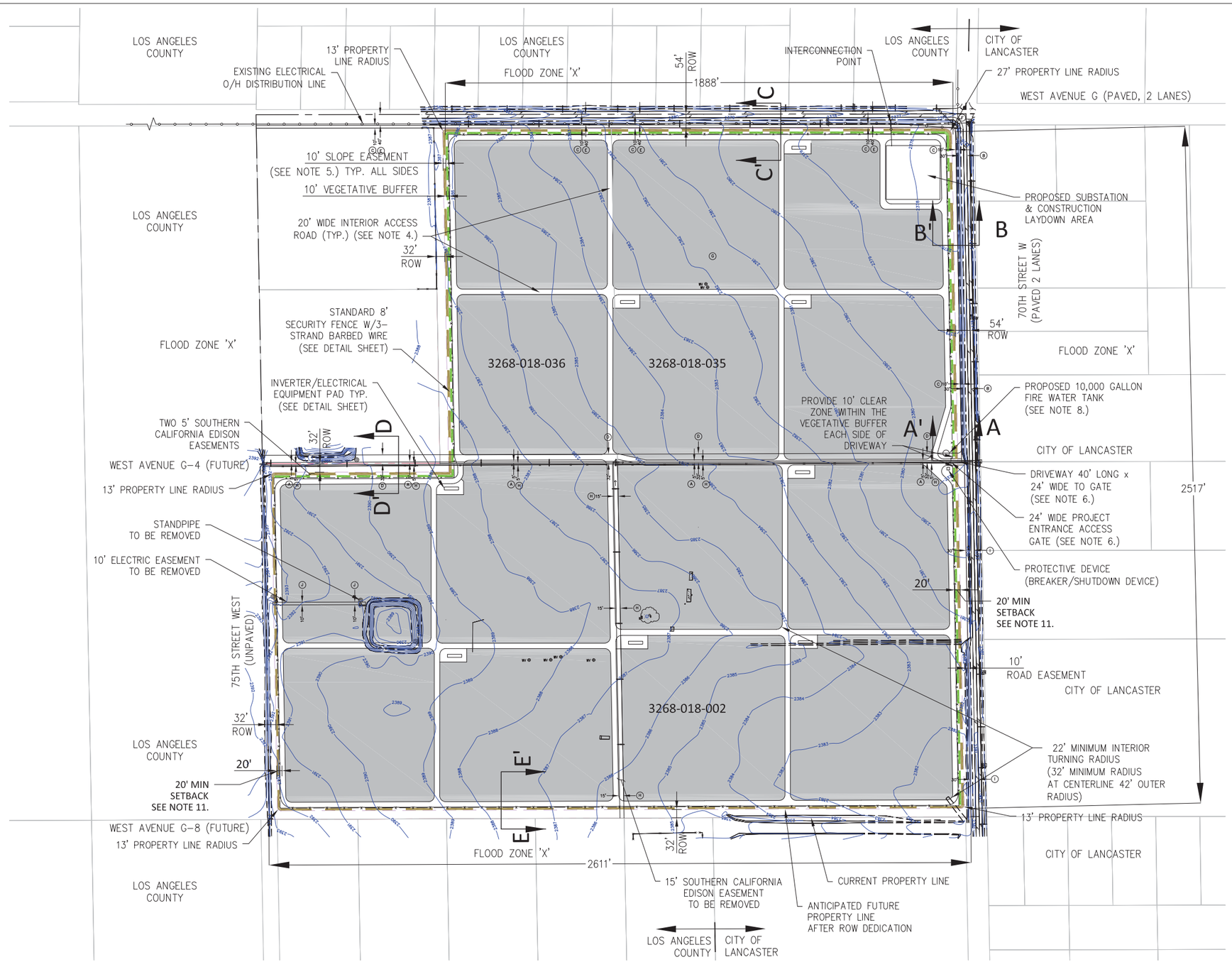
NO.	REVISION	BY	APPR.	DATE
1				
2				
3				

SHEET 2/2 | SHEET G-02

TOPOGRAPHIC MAP
AVENUE G & 70TH STREET WEST
ANTELOPE VALLEY
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

DATE OF SURVEY
4/20/12

COUNTY PLAN CHECK NUMBER
2011-00833(RCUP201100079)



PROJECT SITE:

PROJECT SITE IS 134.6 ACRES (NET)

NOTES:

1. 'ZONE X' AS SHOWN ON PANEL 0400F OF FLOOD INSURANCE RATE MAP NO. 06037C0400F. ZONE "X" DESIGNATED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

2. FIRE DEPARTMENT ACCESS DEVICE AND EMERGENCY CONTACT PLACARD LOCATED AT ALL ENTRANCE GATES.

3. MOBILE SANITATION FACILITY, AS DEFINED BY THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH, CAN BE LOCATED AT ALL PARKING LOCATIONS AND WILL BE LOCATED AT THE NEAREST LOCATION TO CONSTRUCTION AND OPERATIONAL WORKERS ACTIVITY. THE FACILITIES WILL BE KEPT TO LOS ANGELES COUNTY CODE, TITLE 11 - HEALTH & SAFETY, AND CAL-OSHA SANITATION STANDARDS IN SECTION 3360, TITLE 8, CALIFORNIA CODE OF REGULATIONS. MOBILE SANITATION FACILITIES WILL BE MADE AVAILABLE DURING CONSTRUCTION AND AS REQUIRED BY OSHA DURING OPERATIONS AND MAINTENANCE. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-06.

4. INTERIOR ACCESS ROADS WILL BE 20' WIDE, COMPACTED TO 90%, WITH 32 FOOT TURNING RADIUS AT CENTER LINE. THE INNER RADIUS WILL BE 22' AND THE OUTER RADIUS WILL BE 42'. INTERIOR ACCESS ROADS WILL BE PROVIDED TO INVERTER/ELECTRICAL EQUIPMENT PADS AND AROUND THE PERIMETER OF THE PROJECT. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-06.

5. 10 FOOT WIDE SLOPE EASEMENT WILL BE PROVIDED AROUND PERIMETER.

6. DRIVEWAY ACCESS GATES TO BE SET 40 FEET BACK FROM EDGE OF PROPERTY. DRIVEWAY WILL BE 24 FEET WIDE.

7. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND SUBJECT TO VERIFICATION DURING DETAILED DESIGN.

8. TANK CONNECTIONS PER LOS ANGELES COUNTY FIRE DEPARTMENT.

9. ANTICIPATED ROW SETBACK/DEDICATION FOR FUTURE ROAD DEVELOPMENT. REFER TO SHEET C-06 FOR SECTIONS AND ROW DETAILS.

10. CONTOURS SHOWN ON SITE PLAN, C-01, ARE BASED ON SURVEY BY ALL VALLEY SURVEYING.

11. A 20' MINIMUM SETBACK FROM PROPERTY LINE (AFTER DEDICATIONS) TO ARRAYS OR EQUIPMENT TO BE MAINTAINED ON SITE. PROJECT FENCE, FIRE ROADS, EASEMENTS, AND VEGETATION ARE OK WITHIN THE SETBACK.

BENCHMARK:

LOS ANGELES COUNTY BENCHMARK L2273, LANCASTER 1998
ADJUSTMENT, NAVD 1988,
ELEVATION=2387.380 FEET
CS MON IN WELL 450MM DN @ C/L INT 75TH ST W & AVE G
MKD (1/4 COR 33, 4, R13W, T8N, R7N)

LEGEND:

MIN	MINIMUM
O/H	OVERHEAD LINES
ROW	RIGHT OF WAY
℄	CENTERLINE
—x—x—	FENCE LINE
	OVERHEAD LINE
	UNDERGROUND LINE
	PROPERTY LINE (AFTER DEDICATIONS)
	PROPERTY LINE (CURRENT)
	PARCEL LINE
2383	CONTOUR LINE (1' INTERVAL FROM SURVEY)
	SOLAR ARRAY FIELD
	10' WIDE VEGETATIVE BUFFER
	10' WIDE SLOPE EASEMENT

200 0 200 400
SCALE IN FEET
1'=200'
WHEN PRINTED TO SCALE ON 22"x34" SHEET

C-01
R2011-00799 (RCUP201100071)

P:\CAD\PROJECTS\106-4336 SILVERADO POWER\SP LA-CUP_14-0324\P3-8\C-01-SITE-8-C.DWG
PLOT/UPDATE: Mar 24, 2014 11:25:17 AM

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

35MW AC Solar Photovoltaic Generation System
APNs 3268-018-002
3268-018-035
SCH # 2012061068

Project Name:
Project 3 American Solar Greenworks
Project Address:
W Ave. G & 70th St. W
Los Angeles County, CA

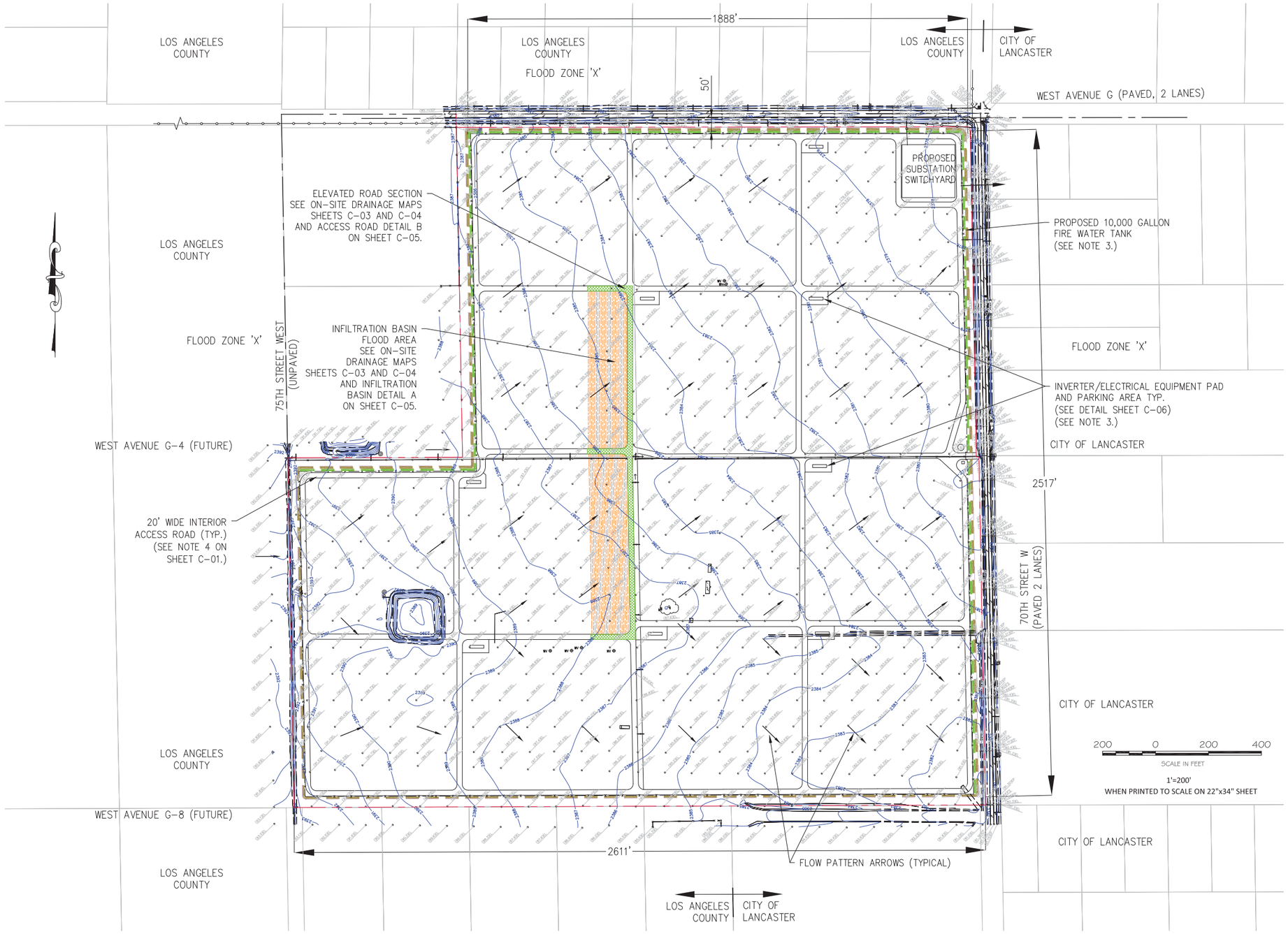
DRAWING: Site Plan

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 3
AMERICAN SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main



200 0 200 400

SCALE IN FEET

1'=200'

WHEN PRINTED TO SCALE ON 22"x34" SHEET

NOTES:

1. DRAINAGE ACROSS SITE IS CURRENTLY FROM THE WEST TO THE EAST, AS SHOWN ON THE SURFACE CONTOURS. TOPOGRAPHY/CONTOURS ARE BASED ON SURVEY DATA PROVIDED BY ALL VALLEY SURVEYING.

2. OVERALL EXISTING GRADING AND DRAINAGE PATTERN TO REMAIN UNCHANGED DURING AND AFTER CONSTRUCTION WITH THE EXCEPTION OF AREAS USED FOR DRAINAGE FEATURES. ELEVATED ROAD SECTIONS WILL BE USED TO CREATE INFILTRATION BASINS. FLOOD AREAS AND FLOW PATTERN ARROWS ARE SHOWN ON THIS SHEET AND SHEETS C-03 AND C-04.

3. EQUIPMENT PADS WILL BE GRADED AS REQUIRED PER MANUFACTURER SPECIFICATIONS.

LEGEND:

TELE	TELEPHONE BOX	SLB	STREET LIGHT BOX
CATV	CABLE TV BOX		STREET LIGHT
	POWER POLE	TSB	TRAFFIC SIGNAL BOX
	GUY ANCHOR	STS	STREET SIGN
ELEC	ELECTRIC BOX	STOP	STOP SIGN
GP	GUARD POST	SPD	SPEED LIMIT SIGN
WV	WATER VALVE	EP	EDGE OF PAVEMENT
	CONCRETE STANDPIPE	CLF	CHAIN-LINK FENCE
TEL	TELEPHONE BOX	PL	PROPERTY LINE
MLB	MAILBOX	CL	CENTER LINE
	FENCE	R/W	RIGHT OF WAY LINE
	EDGE OF PAVEMENT	FS	FINISH SURFACE
	WALL		
			TREE
			CONCRETE
			FENCE LINE
℄	CENTERLINE		OVERHEAD LINE
CMP	CORRUGATED METAL PIPE		UNDERGROUND LINE
L.F.	LINEAR FEET		PROPERTY LINE (AFTER DEDICATIONS)
TBD	TO BE DETERMINED		PROPERTY LINE (CURRENT)
TYP.	TYPICAL		PARCEL LINE
			INFILTRATION BASIN FLOOD AREA
			ELEVATED ROAD SECTION
		2383	CONTOUR LINE (1' INTERVAL FROM ALL VALLEY SURVEYING)
			10' WIDE VEGETATIVE BUFFER
			10' WIDE SLOPE EASEMENT

EARTHWORK QUANTITIES:

OVEREXCAVATION	=	25,500 CUBIC YARDS
CUT	=	1,000 CUBIC YARDS
FILL	=	1,000 CUBIC YARDS

CUT & FILL QUANTITIES INCLUDE INVERTER PADS, SUBSTATION, BASINS, AND ELEVATED ROAD BED FOR DRAINAGE FEATURES.

OVEREXCAVATION QUANTITY INCLUDES ACCESSIBLE FIRE ROAD.

SURVEY INFORMATION:

TOPOGRAPHIC MAP AND 1' CONTOURING PREPARED BY ALL VALLEY SURVEYING, SEE TOPOGRAPHIC MAP SHEETS.

SURVEYOR:

LARRY E. JERNIGAN, PLS #5924
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA 93534
(661) 942-3639

BASIS OF BEARINGS:

SEE TOPOGRAPHIC MAP SHEETS.

BENCHMARK:

SEE TOPOGRAPHIC MAP SHEETS.

EASEMENTS:

SEE TOPOGRAPHIC MAP SHEETS.

C-02

R2011-00799 (RCUP201100071)

P:\CAD\PROJECTS\106-4336 SILVERADO POWER\SP LA-CUP-14-032A\P3-9\C-02-GRAD-9-A.DWG
PLOT/UPDATE: Mar 24, 2014 11:2:42 AM

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

35MW AC Solar Photovoltaic Generation System
APNs 3268-018-002
3268-018-035
SCH # 2012061068

Project Name:
Project 3 American Solar Greenworks

Project Address:
W Ave. G & 70th St. W
Los Angeles County, CA

DRAWING:
Preliminary Grading & Drainage Plan

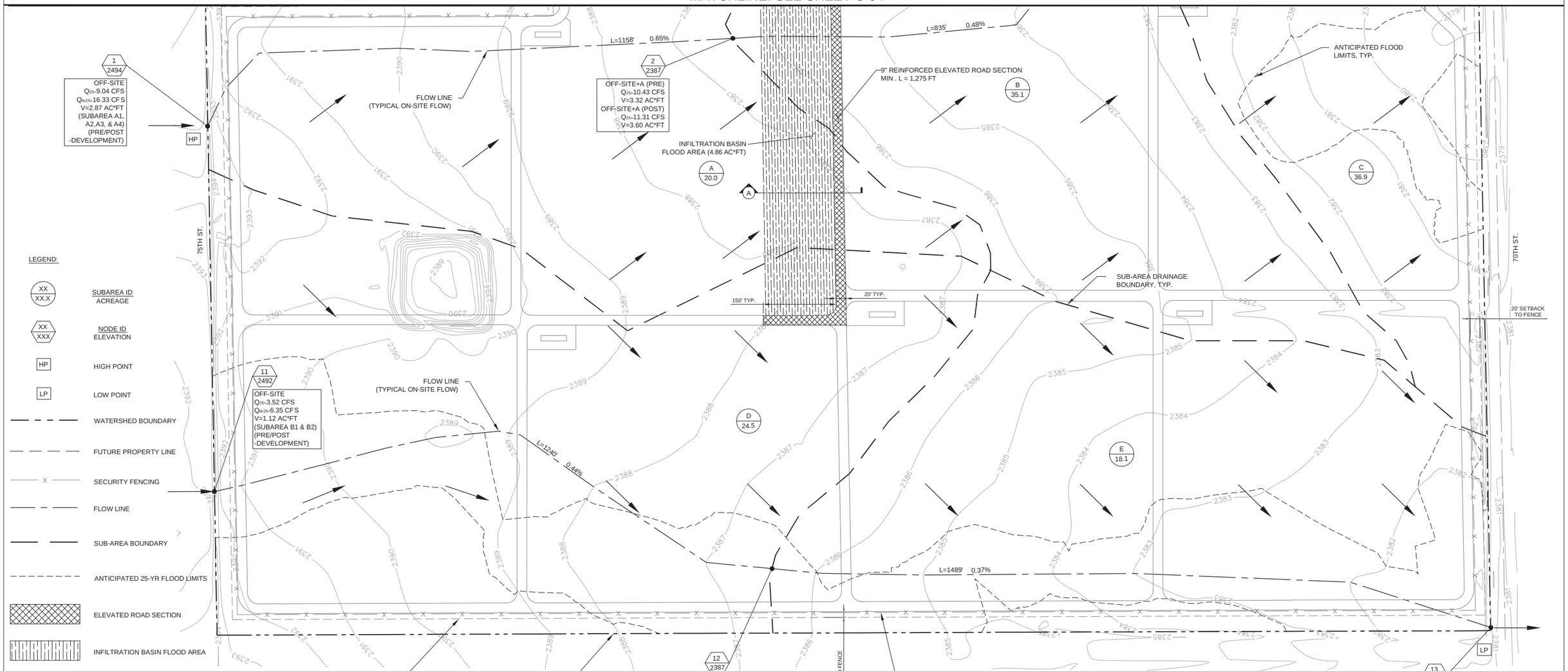
APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 3
AMERICAN SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

MATCHLINE: SEE SHEET C-04



LEGEND:

- XX / XX.X — SUBAREA ID / ACREAGE
- XX / XXX — NODE ID / ELEVATION
- HP — HIGH POINT
- LP — LOW POINT
- WATERSHED BOUNDARY
- FUTURE PROPERTY LINE
- SECURITY FENCING
- FLOW LINE
- SUB-AREA BOUNDARY
- ANTICIPATED 25-YR FLOOD LIMITS
- ELEVATED ROAD SECTION
- INFILTRATION BASIN FLOOD AREA

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Qbr_{25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = (1,300 CY / SQ. MI.) * (TOTAL WATERSHED AREA 0.480 SQ. MI.) = 624 CY

PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION QUANTITIES (FOR ENTIRE SITE)
Q_{25}= 6.47 CFS	Q_{25}= 8.35 CFS	Q_{PM}=4.60 CFS
Qbr_{25}= 11.66 CFS	Qbr_{25}= 13.32 CFS	V_M=1.49 AC*FT
V= 2.07 AC*FT	V= 2.67 AC*FT	DELTA QUANTITIES (FOR ENTIRE SITE)
		ΔQ_{25}=5.93 CFS
		ΔV_{25}=1.90 AC*FT

DRAINAGE CONCEPT NOTES:

1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
2) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3) APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTES).
4) AN OFFSITE DRAINAGE COVENANT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
5) A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
6) A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
7) BASIN SIZES ARE DEPENDENT ON THE VERIFICATION OF PERCOLATION RATES AND ARE SUBJECT TO CHANGE.
8) NOT WITHIN A FEMA ZONE A. WITHIN FEMA ZONE X, UNSHADED.
9) NOT WITHIN A COUNTY ADOPTED FLOODWAY.
10) ALL BASINS ARE PRIVATELY MAINTAINED.
11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATE (Q_{50}) INCREASED BY 9.9%, THE VOLUME (V_{50}) INCREASED BY 3.4%, THE DEPTH INCREASED BY 4.8%, AND THE VELOCITY INCREASED BY 0.0%. THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. SEE IMPACT ANALYSIS CALCULATIONS.

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO: _____ DATE _____
CHECKED BY: _____ DATE _____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

N

0 50' 100' 200'
SCALE: 1" = 100'

R2011-00799 (RCUP201100071)

C-03

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA

JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

35MW AC Solar Photovoltaic Generation System
APNs 3268-018-002
3268-018-035
SCH # 2012061068

Project Name:
Project 3 American Solar Greenworks

Project Address:
W Ave. G & 70th St. W
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID
FOR CUP 201100071
ON-SITE DRAINAGE MAP

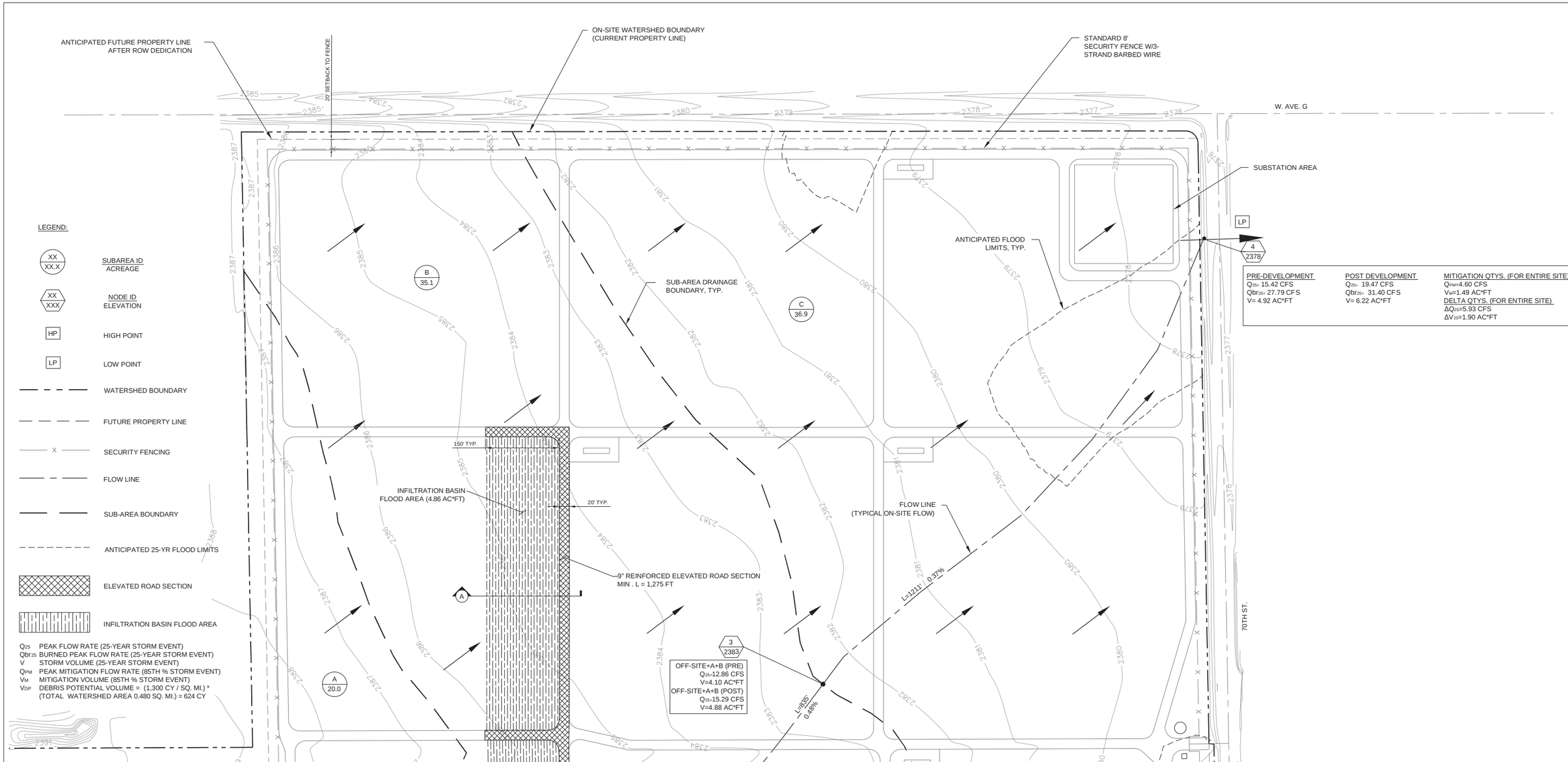
APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 3
AMERICAN SOLAR
GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\045461\35-04546-12001\SUPPORTDOCS\CALCS\HYDROLOGY\9\FINAL DESIGN\ONSITE HYDROLOGY C03.DWG
PLOT/UPDATE: Dec 6, 2013 11:46:22 AM



PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION QTYS. (FOR ENTIRE SITE)
Q_{25}= 15.42 CFS	Q_{25}= 19.47 CFS	Q_{PM}=4.60 CFS
Qbr_{25}= 27.79 CFS	Qbr_{25}= 31.40 CFS	V_M=1.49 AC*FT
V= 4.92 AC*FT	V= 6.22 AC*FT	DELTA QTYS. (FOR ENTIRE SITE)
		ΔQ_{25}=5.93 CFS
		ΔV_{25}=1.90 AC*FT

MATCHLINE: SEE SHEET C-03

DRAINAGE CONCEPT NOTES:

1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
2) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3) APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTES).
4) AN OFFSITE DRAINAGE COVENANT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
5) A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
6) A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
7) BASIN SIZES ARE DEPENDENT ON THE VERIFICATION OF PERCOLATION RATES AND ARE SUBJECT TO CHANGE.
8) NOT WITHIN A FEMA ZONE A. WITHIN FEMA ZONE X, UNSHADED.
9) NOT WITHIN A COUNTY ADOPTED FLOODWAY.
10) ALL BASINS ARE PRIVATELY MAINTAINED.
11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATE (Q_{50}) INCREASED BY 9.9%, THE VOLUME (V_{50}) INCREASED BY 3.4%, THE DEPTH INCREASED BY 4.8%, AND THE VELOCITY INCREASED BY 0.0%. THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. SEE IMPACT ANALYSIS CALCULATIONS.

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO: _____ DATE _____
CHECKED BY: _____ DATE _____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

N
0 50' 100' 200'
SCALE: 1"=100'

R2011-00799 (RCUP201100071) C-04

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

35MW AC Solar Photovoltaic Generation System
APNs 3268-018-002
3268-018-035
SCH # 2012061068

Project Name:
Project 3 American Solar Greenworks
Project Address:
W Ave. G & 70th St. W
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100071 ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 3
AMERICAN SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\045461\35-04546-12001\SUPPORTDOCS\CALCS\HYDROLOGY\9\FINAL DESIGN\ONSITE HYDROLOGY C04.DWG
PLOT/UPDATE: Dec 6, 2013 11:46:44 AM

HYDROLOGY RESULTS: (BASED ON LA FLOOD CONTROL TC CALCULATOR)

ON-SITE HYDROLOGY (PRE DEVELOPMENT)

Project	Subarea	Area (acres)	%Imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre-ft)
Project 3	A	20.0	0.01	2	120	1158	0.0065	1.1	30	0.28	0.10	0.11	0.62	0.34	1.00	0.20
Project 3	B	35.1	0.01	2	120	835	0.0048	1.1	30	0.28	0.10	0.11	1.08	0.34	1.76	0.34
Project 3	C	36.9	0.01	2	120	1211	0.0037	1.1	30	0.28	0.10	0.11	1.14	0.34	1.85	0.36
Project 3	D	24.5	0.01	2	120	1240	0.0044	1.1	30	0.28	0.10	0.11	0.75	0.34	1.23	0.24
Project 3	E	18.1	0.01	2	120	1489	0.0037	1.1	30	0.28	0.10	0.11	0.56	0.34	0.91	0.18
Project 3	A	20.0	0.01	5	120	1158	0.0065	1.6	30	0.42	0.10	0.11	0.92	0.34	1.59	0.30
Project 3	B	35.1	0.01	5	120	835	0.0048	1.6	30	0.42	0.10	0.11	1.62	0.34	2.78	0.52
Project 3	C	36.9	0.01	5	120	1211	0.0037	1.6	30	0.42	0.10	0.11	1.70	0.34	2.92	0.55
Project 3	D	24.5	0.01	5	120	1240	0.0044	1.6	30	0.42	0.10	0.11	1.13	0.34	1.94	0.36
Project 3	E	18.1	0.01	5	120	1489	0.0037	1.6	30	0.42	0.10	0.11	0.84	0.34	1.43	0.27
Project 3	A	20.0	0.01	10	120	1158	0.0065	2.0	30	0.51	0.10	0.11	1.12	0.34	1.97	0.36
Project 3	B	35.1	0.01	10	120	835	0.0048	2.0	30	0.51	0.10	0.11	1.97	0.34	3.46	0.64
Project 3	C	36.9	0.01	10	120	1211	0.0037	2.0	30	0.51	0.10	0.11	2.07	0.34	3.63	0.67
Project 3	D	24.5	0.01	10	120	1240	0.0044	2.0	30	0.51	0.10	0.11	1.37	0.34	2.41	0.44
Project 3	E	18.1	0.01	10	120	1489	0.0037	2.0	30	0.51	0.10	0.11	1.02	0.34	1.78	0.33
Project 3	A	20.0	0.01	25	120	1158	0.0065	2.5	30	0.63	0.10	0.11	1.39	0.34	2.49	0.45
Project 3	B	35.1	0.01	25	120	835	0.0048	2.5	30	0.63	0.10	0.11	2.43	0.34	4.37	0.78
Project 3	C	36.9	0.01	25	120	1211	0.0037	2.5	30	0.63	0.10	0.11	2.56	0.34	4.60	0.82
Project 3	D	24.5	0.01	25	120	1240	0.0044	2.5	30	0.63	0.10	0.11	1.70	0.34	3.05	0.55
Project 3	E	18.1	0.01	25	120	1489	0.0037	2.5	30	0.63	0.10	0.11	1.25	0.34	2.26	0.40
Project 3	A	20.0	0.01	50	120	1158	0.0065	2.8	30	0.72	0.14	0.15	2.16	0.34	3.41	0.52
Project 3	B	35.1	0.01	50	120	835	0.0048	2.8	30	0.72	0.14	0.15	3.79	0.34	5.98	0.91
Project 3	C	36.9	0.01	50	120	1211	0.0037	2.8	30	0.72	0.14	0.15	3.99	0.34	6.29	0.95
Project 3	D	24.5	0.01	50	120	1240	0.0044	2.8	30	0.72	0.14	0.15	2.65	0.34	4.17	0.63
Project 3	E	18.1	0.01	50	120	1489	0.0037	2.8	30	0.72	0.14	0.15	1.95	0.34	3.08	0.47
Project 3	A	20.0	0.01	MIT.	120	1158	0.0065	0.75	30	0.19	0.10	0.11	0.42	0.34	0.65	0.14
Project 3	B	35.1	0.01	MIT.	120	835	0.0048	0.75	30	0.19	0.10	0.11	0.73	0.34	1.13	0.24
Project 3	C	36.9	0.01	MIT.	120	1211	0.0037	0.75	30	0.19	0.10	0.11	0.77	0.34	1.19	0.25
Project 3	D	24.5	0.01	MIT.	120	1240	0.0044	0.75	30	0.19	0.10	0.11	0.51	0.34	0.79	0.17
Project 3	E	18.1	0.01	MIT.	120	1489	0.0037	0.75	30	0.19	0.10	0.11	0.38	0.34	0.58	0.12

ON-SITE HYDROLOGY (POST DEVELOPMENT)

Project	Subarea	Area (acres)	%Imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre-ft)
Project 3	A	20.0	0.1	2	120	1158	0.0065	1.1	30	0.28	0.10	0.18	1.01	0.34	1.36	0.32
Project 3	B	35.1	0.1	2	120	835	0.0048	1.1	30	0.28	0.10	0.18	1.77	0.34	2.39	0.56
Project 3	C	36.9	0.1	2	120	1211	0.0037	1.1	30	0.28	0.10	0.18	1.86	0.34	2.51	0.59
Project 3	D	24.5	0.1	2	120	1240	0.0044	1.1	30	0.28	0.10	0.18	1.23	0.34	1.67	0.39
Project 3	E	18.1	0.1	2	120	1489	0.0037	1.1	30	0.28	0.10	0.18	0.91	0.34	1.23	0.29
Project 3	A	20.0	0.1	5	120	1158	0.0065	1.6	30	0.42	0.10	0.18	1.51	0.34	2.11	0.49
Project 3	B	35.1	0.1	5	120	835	0.0048	1.6	30	0.42	0.10	0.18	2.65	0.34	3.71	0.85
Project 3	C	36.9	0.1	5	120	1211	0.0037	1.6	30	0.42	0.10	0.18	2.79	0.34	3.90	0.90
Project 3	D	24.5	0.1	5	120	1240	0.0044	1.6	30	0.42	0.10	0.18	1.85	0.34	2.59	0.59
Project 3	E	18.1	0.1	5	120	1489	0.0037	1.6	30	0.42	0.10	0.18	1.37	0.34	1.91	0.44
Project 3	A	20.0	0.1	10	120	1158	0.0065	2.0	30	0.51	0.10	0.18	1.84	0.34	2.61	0.59
Project 3	B	35.1	0.1	10	120	835	0.0048	2.0	30	0.51	0.10	0.18	3.22	0.34	4.58	1.04
Project 3	C	36.9	0.1	10	120	1211	0.0037	2.0	30	0.51	0.10	0.18	3.39	0.34	4.81	1.09
Project 3	D	24.5	0.1	10	120	1240	0.0044	2.0	30	0.51	0.10	0.18	2.25	0.34	3.19	0.73
Project 3	E	18.1	0.1	10	120	1489	0.0037	2.0	30	0.51	0.10	0.18	1.66	0.34	2.36	0.54
Project 3	A	20.0	0.1	25	120	1158	0.0065	2.5	30	0.63	0.10	0.18	2.27	0.34	3.28	0.73
Project 3	B	35.1	0.1	25	120	835	0.0048	2.5	30	0.63	0.10	0.18	3.98	0.34	5.75	1.28
Project 3	C	36.9	0.1	25	120	1211	0.0037	2.5	30	0.63	0.10	0.18	4.18	0.34	6.04	1.34
Project 3	D	24.5	0.1	25	120	1240	0.0044	2.5	30	0.63	0.10	0.18	2.78	0.34	4.01	0.89
Project 3	E	18.1	0.1	25	120	1489	0.0037	2.5	30	0.63	0.10	0.18	2.05	0.34	2.96	0.66
Project 3	A	20.0	0.1	50	120	1158	0.0065	2.8	30	0.72	0.14	0.22	3.17	0.34	4.30	0.84
Project 3	B	35.1	0.1	50	120	835	0.0048	2.8	30	0.72	0.14	0.22	5.56	0.34	7.54	1.47
Project 3	C	36.9	0.1	50	120	1211	0.0037	2.8	30	0.72	0.14	0.22	5.84	0.34	7.93	1.55
Project 3	D	24.5	0.1	50	120	1240	0.0044	2.8	30	0.72	0.14	0.22	3.88	0.34	5.27	1.03
Project 3	E	18.1	0.1	50	120	1489	0.0037	2.8	30	0.72	0.14	0.22	2.87	0.34	3.89	0.76
Project 3	A	20.0	0.1	MIT.	120	1158	0.0065	0.75	30	0.19	0.10	0.18	0.68	0.34	0.89	0.22
Project 3	B	35.1	0.1	MIT.	120	835	0.0048	0.75	30	0.19	0.10	0.18	1.20	0.34	1.56	0.39
Project 3	C	36.9	0.1	MIT.	120	1211	0.0037	0.75	30	0.19	0.10	0.18	1.26	0.34	1.64	0.41
Project 3	D	24.5	0.1	MIT.	120	1240	0.0044	0.75	30	0.19	0.10	0.18	0.84	0.34	1.09	0.27
Project 3	E	18.1	0.1	MIT.	120	1489	0.0037	0.75	30	0.19	0.10	0.18	0.62	0.34	0.81	0.20

Incremental Flow and Volume Increase for Various Storm Events

Storm Event	Pre-Q (cfs)	Post-Q (cfs)	Delta-Q (cfs)	Pre-V (acre-ft)	Post-V (acre-ft	Delta-V (acre-ft)
2.00	4.15	6.78	2.63	1.32	2.15	0.83
5.00	6.21	10.17	3.96	2.00	3.27	1.27
10.00	7.55	12.36	4.81	2.44	3.99	1.55
25.00	9.33	15.26	5.93	3.00	4.90	1.90
50.00	14.54	21.32	6.78	3.48	5.65	2.17

NOTE: FOR INFILTRATION BASIN MITIGATION VOLUME, SUM MIT. FREQUENCY VOLUMES UNDER POST-DEVELOPMENT TABLE. V_{PM}=1.49 AC*FT.

DELTA QUANTITIES FOR DRAINAGE AREA A:
ΔQ25 = 2.27 - 1.39 = 0.88 CFS
ΔV25 = 0.73 - 0.45 = 0.28 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA B:
ΔQ25 = 3.98 - 2.43 = 1.55 CFS
ΔV25 = 1.28 - 0.78 = 0.50 AC*FT

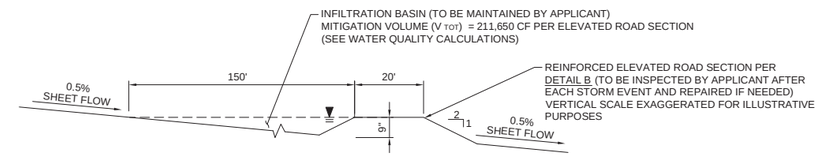
DELTA QUANTITIES FOR DRAINAGE AREA C
ΔQ25 = 4.18 - 2.56 = 1.62 CFS
ΔV25 = 1.34 - 0.82 = 0.52 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA D
ΔQ25 = 2.78 - 1.70 = 1.08 CFS
ΔV25 = 0.89 - 0.55 = 0.34 AC*FT

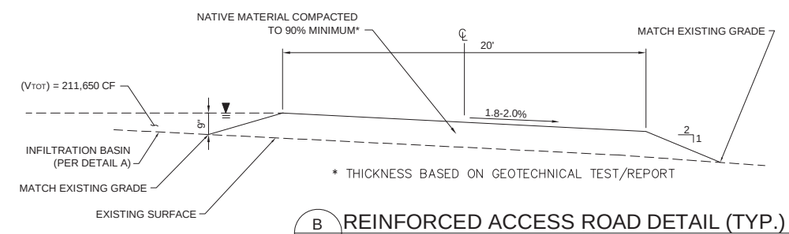
DELTA QUANTITIES FOR DRAINAGE AREA E
ΔQ25 = 2.05 - 1.25 = 0.80 CFS
ΔV25 = 0.66 - 0.40 = 0.26 AC*FT

TOTAL DELTA QUANTITIES
ΔQ25 = 5.93 CFS
ΔV25 = 1.90 AC*FT

NOTE: DUE TO THE LID Δ QUANTITIES ABOVE BEING GREATER THAN THE MITIGATION QUANTITIES (Q_{PM} AND V_{PM}) THEY REPRESENT THE WORST CASE SCENARIO BETWEEN THE PRE-/POST DEVELOPMENT CONDITIONS AND THEREFORE SHALL BE USED FOR SIZING THE INFILTRATION BASINS.



A INFILTRATION BASIN DETAIL
SCALE: NTS



B REINFORCED ACCESS ROAD DETAIL (TYP.)
SCALE: NTS

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO: _____ DATE _____
CHECKED BY: _____ DATE _____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00799 (RCUP201100071) C-05

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
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Solar PV System Summary

35MW AC Solar Photovoltaic Generation System
APNs 3268-018-002
3268-018-035
SCH # 2012061068

Project Name:
Project 3 American Solar Greenworks
Project Address:
W Ave. G & 70th St. W
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100071 ON-SITE DRAINAGE MAP

APPLICANT:
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SILVERADO power

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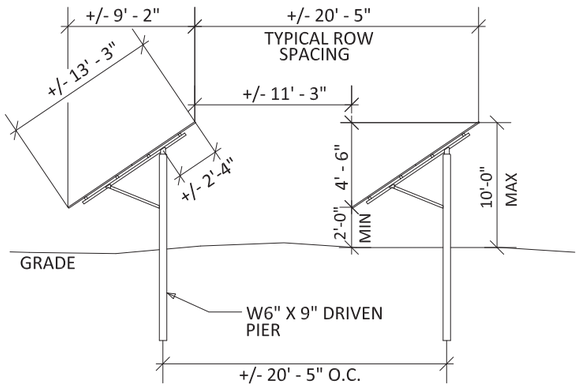
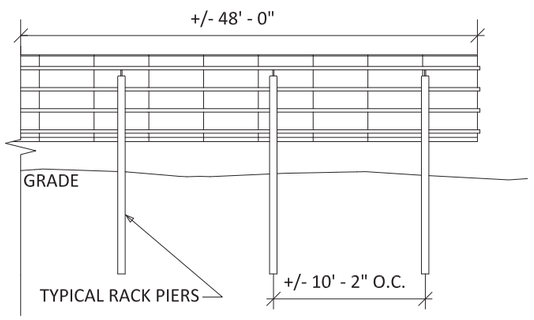


TYPICAL SOLAR ARRAY RACK DETAIL AND END ELEVATION

NOT TO SCALE



SOLAR ARRAY RACK DETAIL ELEVATION

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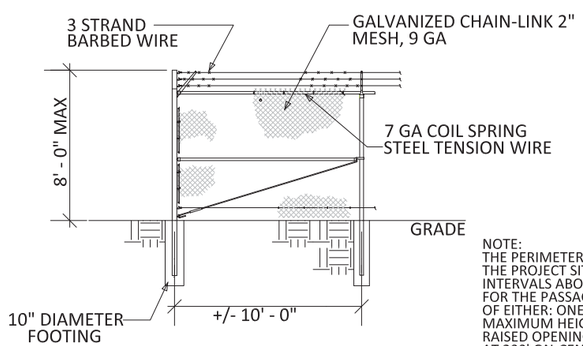
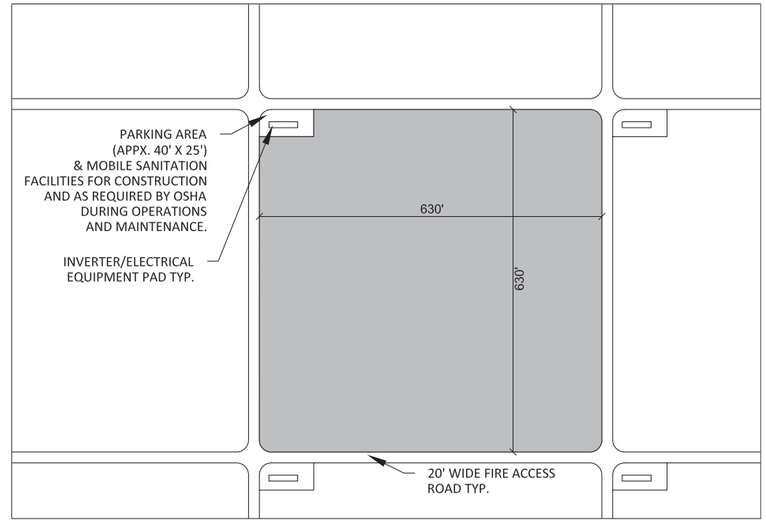


NOTE:
THE PERIMETER FENCING SURROUNDING THE PROJECT SITE WILL BE RAISED AT REGULAR INTERVALS ABOVE GROUND LEVEL TO ALLOW FOR THE PASSAGE OF WILDLIFE TO THE LESSER OF EITHER: ONE FOOT ABOVE GRADE OR TO THE MAXIMUM HEIGHT ALLOWED BY THE PUC. RAISED OPENINGS WILL BE 50' WIDE SPACED AT 200' ON-CENTER.

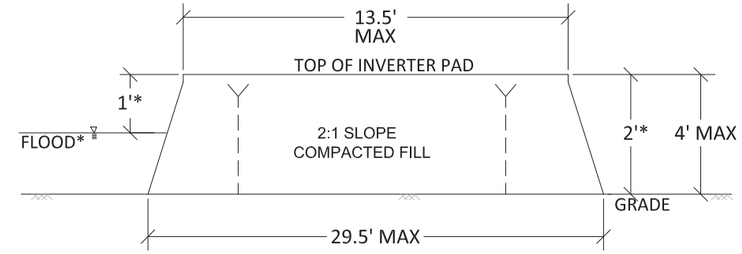
CHAIN LINK SECURITY FENCE ELEVATION

NOT TO SCALE



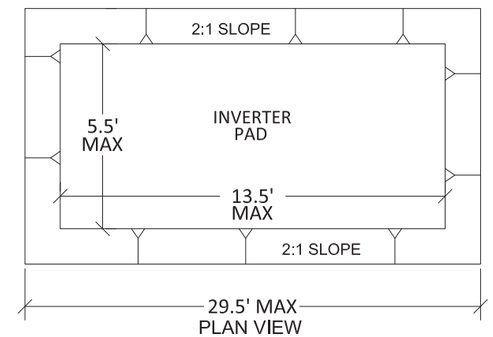
ARRAY BLOCK DETAIL (TYPICAL)

NOT TO SCALE



*TOP OF INVERTER PAD TO BE 1' MINIMUM ABOVE FLOOD WATER ELEVATION AS DETERMINED IN FINAL HYDROLOGY REPORT AND 2' ABOVE GRADE IN FEMA ZONE A.

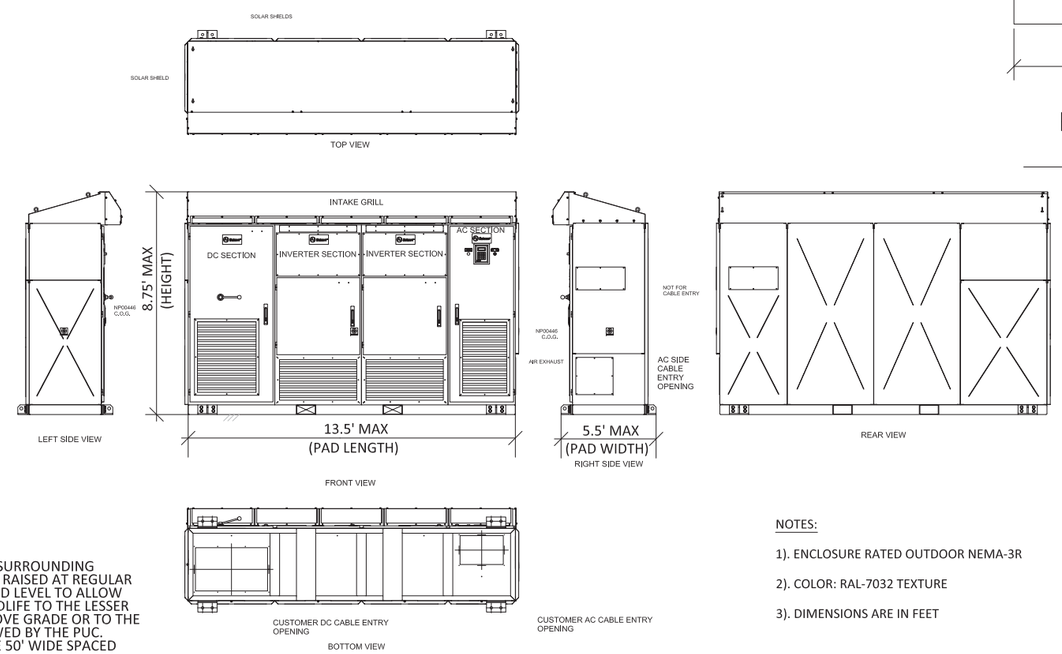
ELEVATION VIEW



PLAN VIEW

RAISED INVERTER PAD DETAILS FOR FLOOD AREAS AS NEEDED

NOT TO SCALE



NOTES:

1). ENCLOSURE RATED OUTDOOR NEMA-3R

2). COLOR: RAL-7032 TEXTURE

3). DIMENSIONS ARE IN FEET

INVERTER PAD DETAILS (TYPICAL)

NOT TO SCALE

C-06

R2011-00799 (RCUP201100071)

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
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Solar PV System Summary

35MW AC Solar Photovoltaic Generation System
APNs 3268-018-002
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SCH # 2012061068

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Los Angeles County, CA

DRAWING: DETAIL SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
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SILVERADO power

PROJECT 3
AMERICAN SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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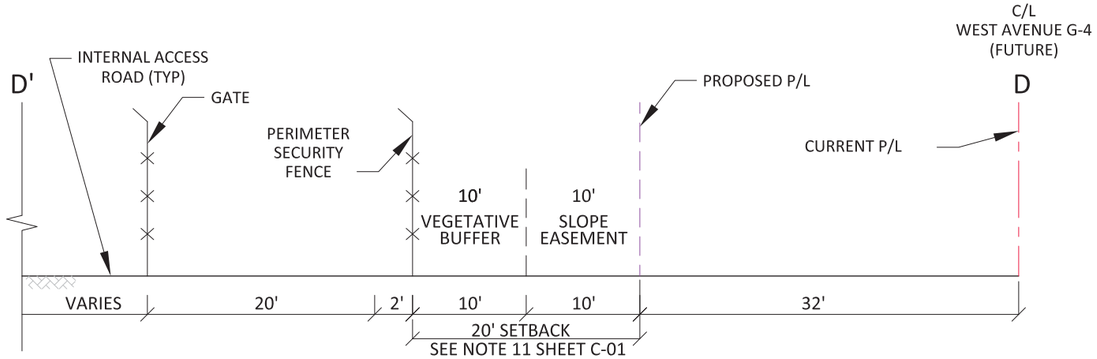

SECTION D' - D

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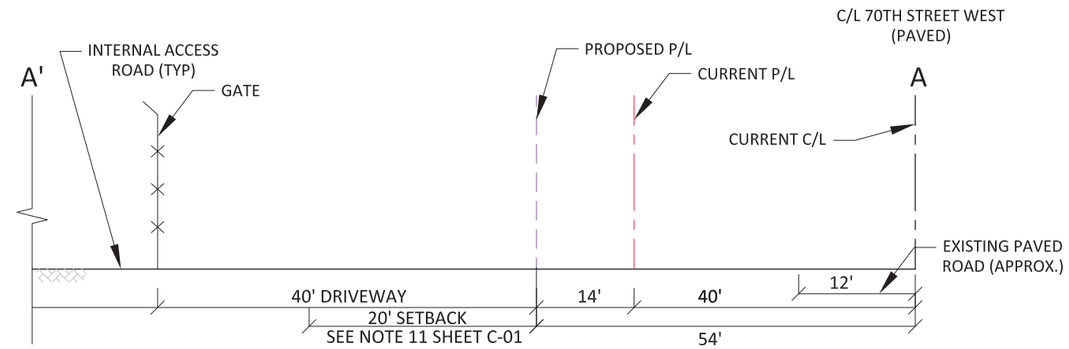

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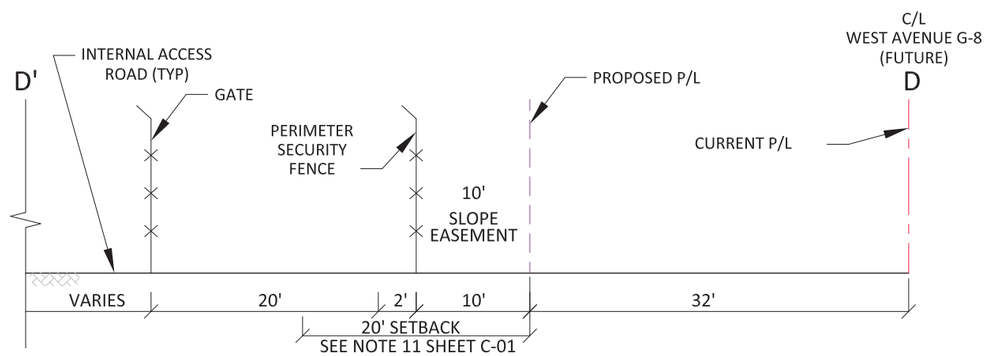

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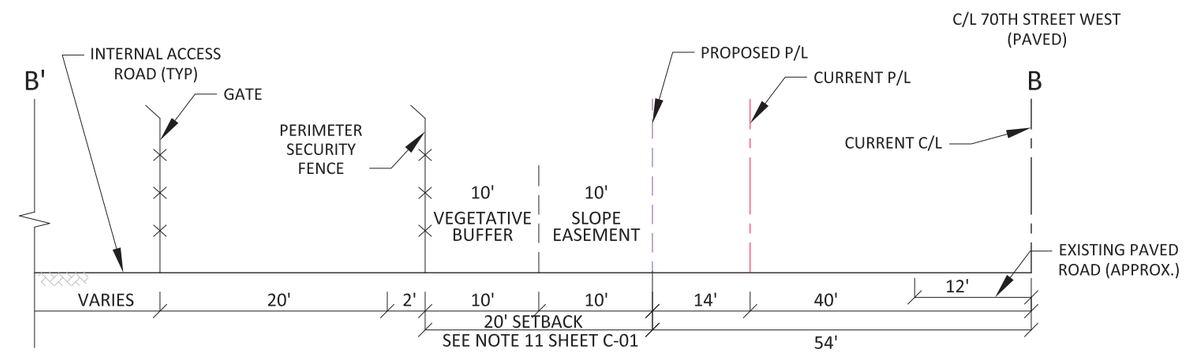

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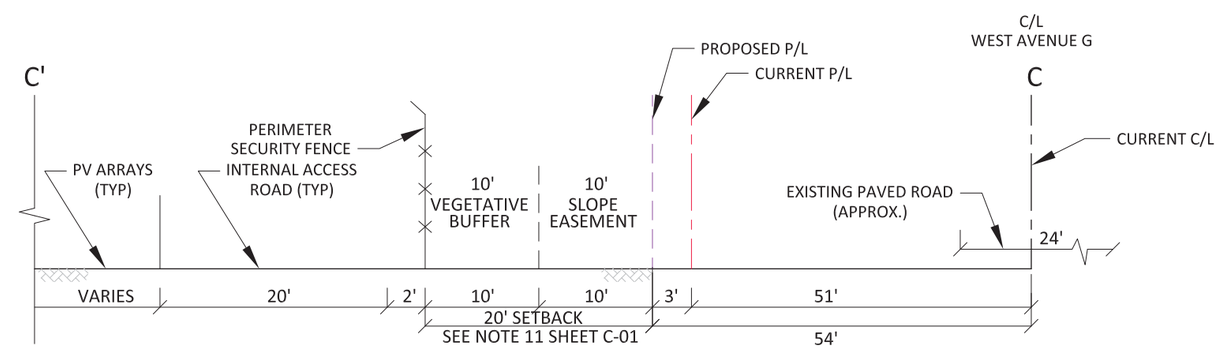


SECTION C' - C

NOT TO SCALE

C-07

R2011-00799 (RCUP201100071)

P:\CAD\PROJECTS\106-4336 SILVERADO POWER\SP LA-CUP_14-0324\P3-R\C-07-SECTIONS-9.DWG
PLOT/UPDATE: Mar 23, 2014 2:7:37 PM

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.

17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

35MW AC Solar Photovoltaic Generation System
APNs 3268-018-002
3268-018-035
SCH # 2012061068

Project Name:
Project 3 American Solar Greenworks

Project Address:
W Ave. G & 70th St. W
Los Angeles County, CA

DRAWING: SECTION SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

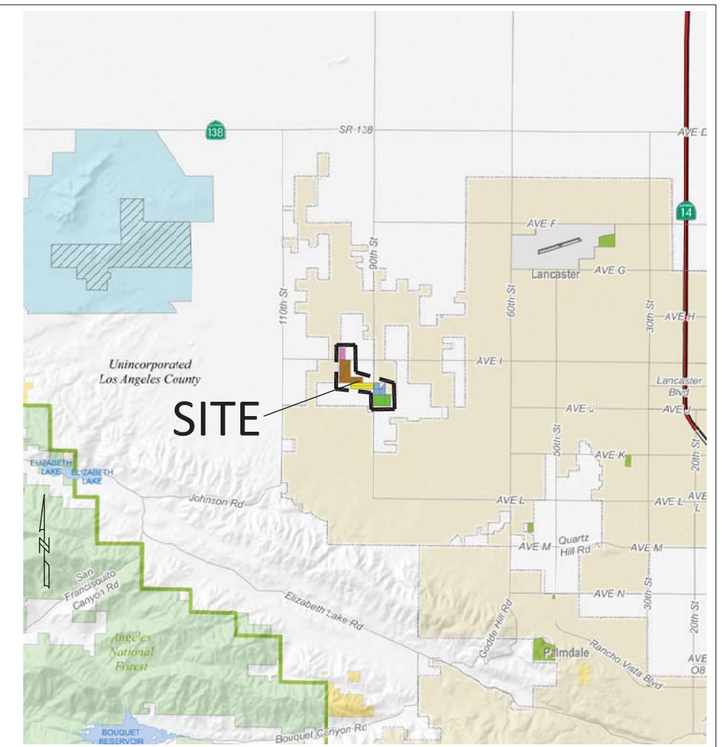
PROJECT 3
AMERICAN SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

KEY MAP
NOT TO SCALE

PROJECT 4 ANTELOPE SOLAR GREENWORKS

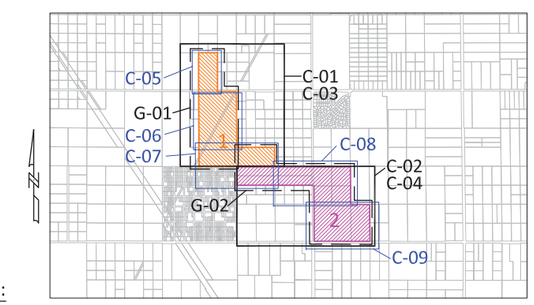
LOS ANGELES COUNTY, CALIFORNIA



VICINITY MAP
NOT TO SCALE

DRAWING INDEX

DRAWING NO.	TITLE
T-01	TITLE SHEET
G-01	SURVEY SHEET
G-02	SURVEY SHEET
C-01	SITE PLAN - NORTH
C-02	SITE PLAN - SOUTH
C-03	GRADING PLAN - NORTH
C-04	GRADING PLAN - SOUTH
C-05	ON-SITE DRAINAGE MAP
C-06	ON-SITE DRAINAGE MAP
C-07	ON-SITE DRAINAGE MAP
C-08	ON-SITE DRAINAGE MAP
C-09	ON-SITE DRAINAGE MAP
C-10	ON-SITE DRAINAGE MAP
C-11	DETAIL SHEET
C-12	SECTION SHEET
C-13	SECTION SHEET
C-14	SECTION SHEET



LEGEND:

1 = NORTH PROJECT AREA
2 = SOUTH PROJECT AREA
C-01 = DRAWING NUMBER

DRAWING REFERENCE MAP
NOT TO SCALE

SURVEY INFORMATION:

TOPOGRAPHIC MAP AND 1' CONTOURING PREPARED BY ALL VALLEY SURVEYING.
BENCHMARK AND BASIS OF BEARINGS SHOWN ON TOPOGRAPHIC MAPS, DRAWINGS G-01 & G-02.

SURVEYOR:

LARRY E. JERNIGAN, PLS #5924
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA 93534
(661) 942-3639

R2011-00807 (RCUP201100076) T-01

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System
APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks
Project Address:
90th St. W & W Ave. J
Los Angeles County, CA
SCH # 2012061068

DRAWING: TITLE SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 4
ANTELOPE SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\(240)PROJECTS\106-4336 SILVERADO POWER\SP LA-CUP_14-032A\P4-10A\T-01-TITLE PAGE-10A.DWG
PLOT/APRIATE: Mar 20, 2014 2:35:58 PM

EASEMENT REFERENCES

1	10-FOOT EASEMENT PER BOOK D-1499, PAGE 128 O.R.
2	10-FOOT EASEMENT PER BOOK 54001, PAGE 220 O.R.
3	30-FOOT EASEMENT PER MINUTE BOOK 184, PAGE 360 O.R.
4	30-FOOT EASEMENT PER BOOK 678, PAGE 368, BOOK 3385, PAGE 254, MINUTE BOOK 184, PAGE 360, AND RESERVED IN INST. NO. 20090120583
5	30-FOOT EASEMENT 2-4, PER PER BOOK 21183, PAGE 338 O.R.
6	13-FOOT CORNER CUT OFF, IRREVOCABLE OFFER TO DEDICATE, PART D, PER INST. NO. 82-770282
7	32-FOOT IRREVOCABLE OFFER TO DEDICATE, PART C, PER INST. NO. 82-770282
8	32-FOOT IRREVOCABLE OFFER TO DEDICATE, PART C, PER INST. NO. 82-761883
9	110-FOOT EASEMENT PER INST. NO. 88-186797
10	30-FOOT EASEMENT 2-6, PER PER BOOK 21183, PAGE 332 O.R.
11	30-FOOT IRREVOCABLE OFFER TO DEDICATE, PART B, PER INST. NO. 82-761883 AND A 30-FOOT EASEMENT PER DOCUMENT RECORDED MARCH 5TH, 1958 AS INST. NO. 477 OF O.R.
12	13-FOOT CORNER CUT OFF, IRREVOCABLE OFFER TO DEDICATE, PART D, PER INST. NO. 82-761883
13	32-FOOT IRREVOCABLE OFFER TO DEDICATE, PART B, PER INST. NO. 82-770282
14	30-FOOT STORM DRAIN EASEMENT SHOWN ON ASSESSORS BOOK 3218 PAGE 002, NOT RECORDED OF OFFICIAL RECORDS
15	13-FOOT CORNER CUT OFF, IRREVOCABLE OFFER TO DEDICATE, PART E, PER INST. NO. 82-770282
16	20-FOOT IRREVOCABLE OFFER TO DEDICATE, PART A, PER INST. NO. 82-770282
17	20-FOOT IRREVOCABLE OFFER TO DEDICATE, PART A, PER INST. NO. 82-761883
18	13-FOOT CORNER CUT OFF, IRREVOCABLE OFFER TO DEDICATE, PART E, PER INST. NO. 82-761883
19	32-FOOT EASEMENT RESERVED IN PARCEL IV, INST. NO. 97-1922638, PARCEL III A, INST. NO. 97-1922639, AND PARCEL 2 INST. NO. 04-1626977
20	32-FOOT EASEMENT PARCEL IV A, INST. NO. 97-1922638, PARCEL III, INST. NO. 97-1922639, AND PARCEL 4, INST. NO. 04-1626977
21	32-FOOT EASEMENT RESERVED IN PARCEL IV, INST. NO. 97-1922638, PARCEL III A, INST. NO. 97-1922639, AND PARCEL 2, INST. NO. 04-1626977
22	5-FOOT EASEMENT RESERVED IN BOOK 7078, PAGE 357 AND BOOK 6719, PAGE 218 O.R.
23	32-FOOT EASEMENT PARCEL IV A, INST. NO. 97-1922638, PARCEL III, INST. NO. 97-1922639, AND PARCEL 4, INST. NO. 04-1626977
24	5-FOOT EASEMENT RESERVED IN DEED RECORDED MARCH 25TH, 1930 AS INST. NO. 421 OF O.R.
25	5-FOOT EASEMENT RESERVED IN THE FOLLOWING DEEDS BOOK 8986, PAGE 368, BOOK 24226, PAGE 289, AND BOOK 40552, PAGE 801 ALL OF O.R.
26	6-FOOT EASEMENT RECORDED DEC. 21, 1951 AS INST. NO. 2020 OF O.R.

LEGEND

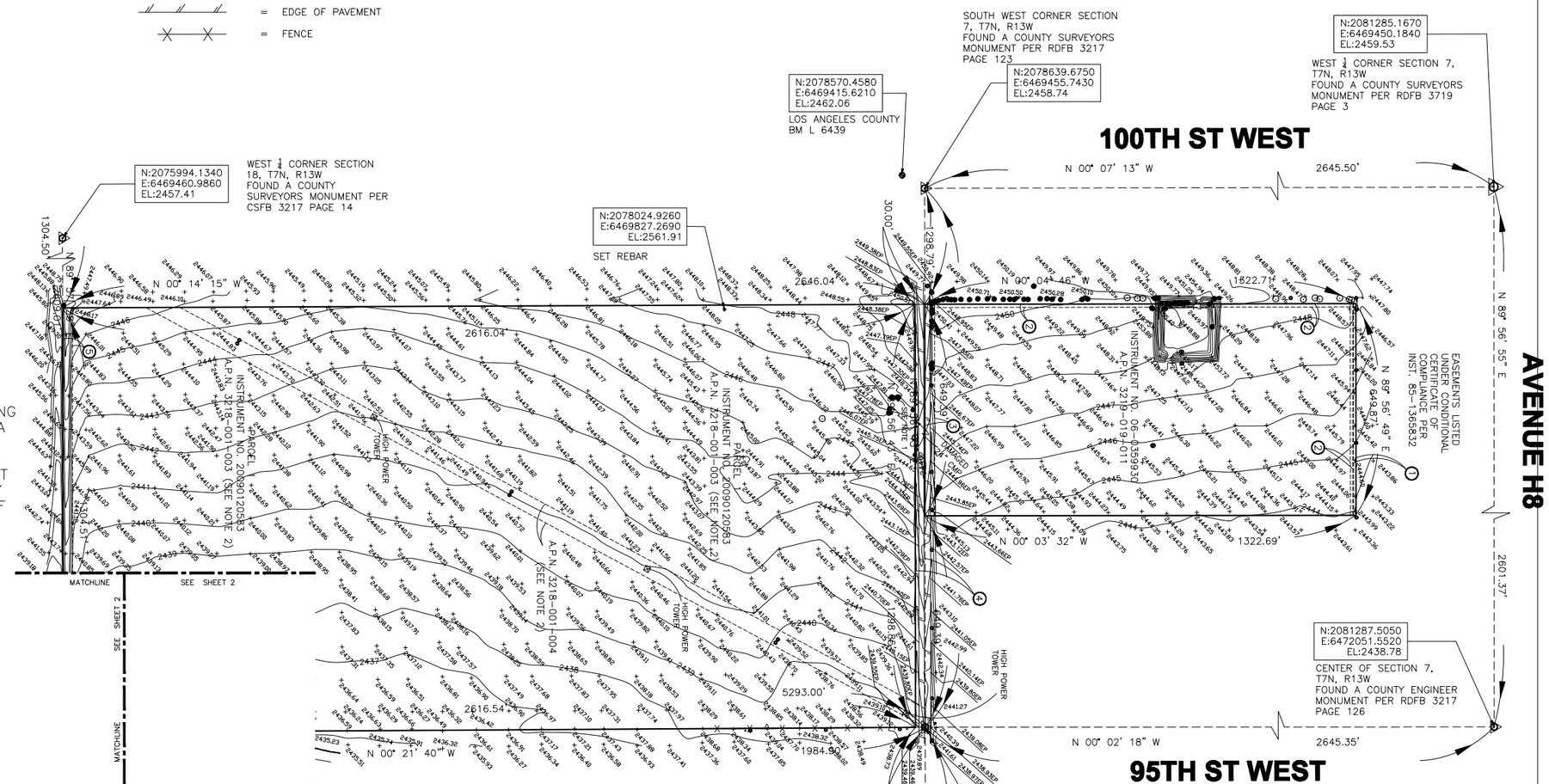
- = SURVEY CONTROL MONUMENT AS NOTED
- = LOS ANGELES COUNTY BENCHMARK AS NOTED
- = TREE 12" & 24"
- = LARGE BUSH
- = PADDLE MARKER POST
- = POWER POLE
- = GUY WIRE
- = MAILBOX
- TW = TOP OF WALL
- EP = EDGE OF PAVEMENT
- 5 = EASEMENT IDENTIFIER
- = TELEPHONE RISER
- = POST
- = STANDPIPE
- = EDGE OF PAVEMENT
- = FENCE

DATUM STATEMENT

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, (CCS83) ZONE V, 1983 NORTH AMERICAN DATUM, 1991.35 EPOCH ADJUSTMENT. COORDINATES SHOWN ARE GRID IN U.S. SURVEY FEET. ALL DISTANCES SHOWN ARE GRID DISTANCES. TO OBTAIN A GROUND DISTANCE, DIVIDE THE GRID DISTANCE BY 0.99983621. COMBINATION FACTOR IS PROJECT BASED.

NOTE 1 – FOUND TWO APPARENT GAS LINES ORIGIN UNKNOWN

NOTE 2 – INST. NO. 20090120583 DESCRIBES AN ALIQUOT PART OF THE NORTHWEST QUARTER OF SECTION 18, T7N, R13W, AND MAKES NO EXCEPTION OF THE APPARENT EDISON EASEMENT CUTTING THROUGH THE LAND IN A NORTHEASTERLY DIRECTION AS SHOWN. A CURRENT TITLE SEARCH ALSO MAKES NO MENTION OF SAID EASEMENT. THE COUNTY ASSESOR SHOWS AN EASEMENT AS PARCEL 004. TRANSMISSION TOWERS AND POWER POLES DO EXIST WITHIN LINES AS SHOWN SCALED FROM THE LOS ANGELES COUNTY REGIONAL PLANNING GIS WEB SITE. A MORE THOROUGH SEARCH OF TITLE IS NECESSARY TO DETERMINE THE ORIGN OF THIS APPARENT EASEMENT.



BASIS OF BEARING	BENCH MARK
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE V, NAD 83, EPOCH 1991.35, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS), EW7123 AND EW7124, BEING NORTH 13°31'30" EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE NATIONAL GEODETIC SURVEY.	LOS ANGELES COUNTY BENCHMARK L 6439, LANCASTER 2004 ADJUSTMENT, NAVD 1988, ELEVATION = 2462.062 FEET C-NAIL IN CONC STANDPIPE @ SW COR AVE I & 100TH ST W 19.8M(65FT) S/O & 10.7M(35FT) W/O C/L INT

SCALE
HORIZ: 1"= 200'

PROFESSIONAL LAND SURVEYOR
LARRY E JERNIGAN
No. 5924
EXP 12-31-12
STATE OF CALIFORNIA

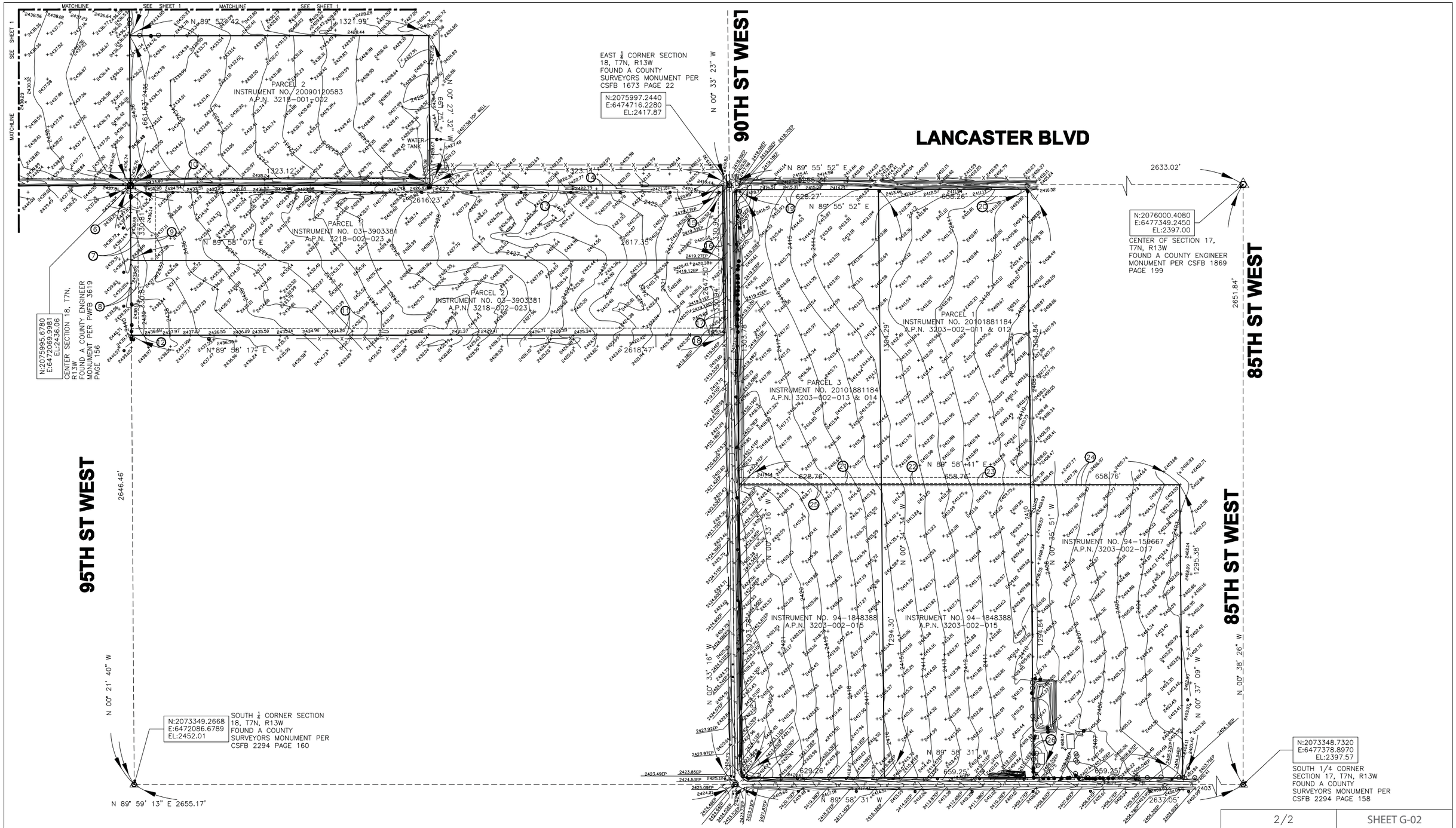
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA. 93534
(661) 942-3639

NO.	REVISION	BY	APPR.	DATE
1				
2				
3				

1/2 | SHEET G-01

TOPOGRAPHIC MAP
AVENUE I & 90TH STREET WEST
ANTELOPE VALLEY
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

DATE OF SURVEY	COUNTY PLAN CHECK NUMBER
1/22/12	R2011-00807(RCUP2011-00076)



BASIS OF BEARING	BENCH MARK
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE V, NAD 83, EPOCH 1991.35, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS), EW7123 AND EW7124, BEING NORTH 13°31'30" EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE NATIONAL GEODETIC SURVEY.	LOS ANGELES COUNTY BENCHMARK L 6439, LANCASTER 2004 ADJUSTMENT, NAVD 1988, ELEVATION = 2462.062 FEET C-NAIL IN CONC STANDPIPE @ SW COR AVE I & 100TH ST W 19.8M(65FT) S/O & 10.7M(35FT) W/O C/L INT

SCALE
HORIZ: 1"= 200'

PROFESSIONAL LAND SURVEYOR
LARRY E. JERNIGAN
No. 5924
EXP 12-31-12
STATE OF CALIFORNIA

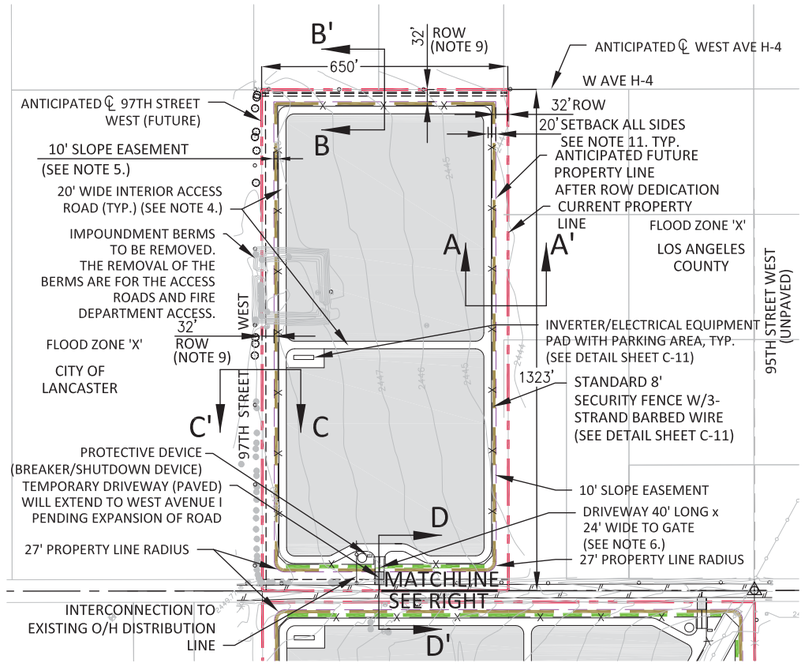
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA. 93534
(661) 942-3639

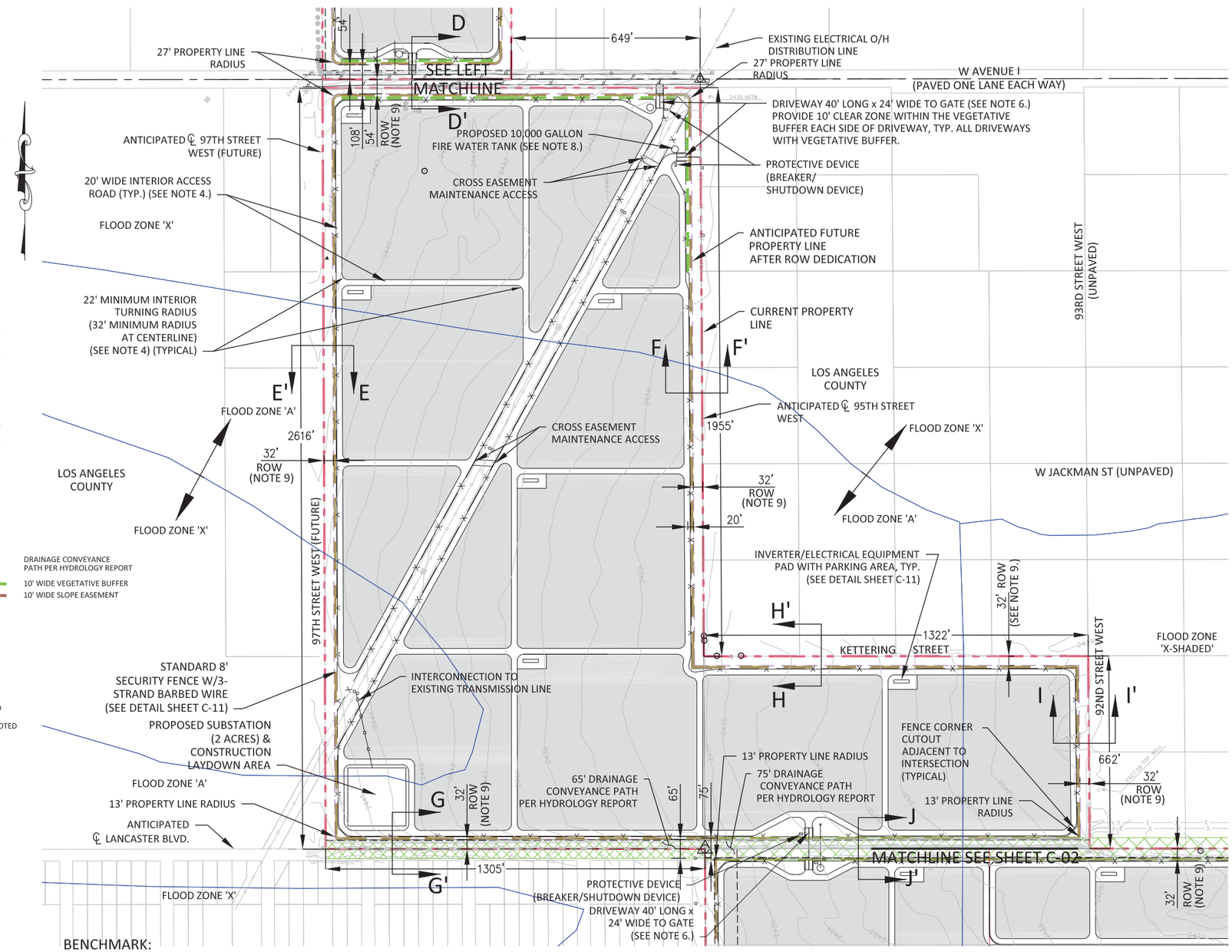
NO.	REVISION	BY	APPR.	DATE
1				
2				
3				

2/2 | SHEET G-02

TOPOGRAPHIC MAP
AVENUE I & 90TH STREET WEST
ANTELOPE VALLEY
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

DATE OF SURVEY	COUNTY PLAN CHECK NUMBER
1/22/12	R2011-00807(RCUP2011-00076)





SITE PLAN NOTES:

1. 'ZONE X' AS SHOWN ON PANEL 0150F OF FLOOD INSURANCE RATE MAP NO. 06037C0400F. ZONE "X" DESIGNATED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN. ZONE "A" DESIGNATED AS, "NO BASE FLOOD ELEVATIONS DETERMINED".

2. FIRE DEPARTMENT ACCESS DEVICE AND EMERGENCY CONTACT PLACARD LOCATED AT ALL ENTRANCE GATES.

3. MOBILE SANITATION FACILITY, AS DEFINED BY THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH, CAN BE LOCATED AT ALL PARKING LOCATIONS AND WILL BE LOCATED AT THE NEAREST LOCATION TO CONSTRUCTION AND OPERATIONAL WORKERS ACTIVITY. THE FACILITIES WILL BE KEPT TO LOS ANGELES COUNTY CODE, TITLE 11 - HEALTH & SAFETY, AND CAL-OSHA SANITATION STANDARDS IN SECTION 3360, TITLE 8, CALIFORNIA CODE OF REGULATIONS. MOBILE SANITATION FACILITIES WILL BE MADE AVAILABLE DURING CONSTRUCTION AND AS REQUIRED BY OSHA DURING OPERATIONS AND MAINTENANCE. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-11.

4. INTERIOR ACCESS ROADS WILL BE 20' WIDE, COMPACTED TO 90%, WITH 32 FOOT TURNING RADIUS AT CENTER LINE. THE INNER RADIUS WILL BE 22' AND THE OUTER RADIUS WILL BE 42'. INTERIOR ACCESS ROADS WILL BE PROVIDED TO INVERTER/ELECTRICAL EQUIPMENT PADS AND AROUND THE PERIMETER OF THE PROJECT. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-11.

5. 10 FOOT WIDE SLOPE EASEMENT WILL BE PROVIDED AROUND PERIMETER.

6. DRIVEWAY ACCESS GATES TO BE SET 40 FEET BACK FROM EDGE OF PROPERTY. DRIVEWAY WILL BE 24 FEET WIDE.

7. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND SUBJECT TO VERIFICATION DURING DETAILED DESIGN.

8. TANK CONNECTIONS PER LOS ANGELES COUNTY FIRE DEPARTMENT.

9. ANTICIPATED ROW SETBACK/DEDICATION FOR FUTURE ROAD DEVELOPMENT. REFER TO SHEETS C-12, C-13, AND C-14 FOR SECTIONS AND ROW DETAILS.

10. CONTOURS SHOWN ARE BASED ON TOPOGRAPHIC MAP PREPARED BY ALL VALLEY SURVEYING.

11. A 20' MINIMUM SETBACK FROM PROPERTY LINE (AFTER DEDICATIONS) TO ARRAYS OR EQUIPMENT TO BE MAINTAINED ON SITE. PROJECT FENCE, FIRE ROADS, EASEMENTS, AND VEGETATION ARE OK WITHIN THE SETBACK.

200 0 200 400

SCALE IN FEET

1"=200'

WHEN PRINTED TO SCALE ON 22"x34" SHEET

SITE PLAN LEGEND:

TYP.	TYPICAL	
MIN	MINIMUM	
O/H	OVERHEAD LINES	
ROW	RIGHT OF WAY	
℄	CENTERLINE	
— x — x —	FENCE LINE	
	OVERHEAD LINE	
	UNDERGROUND LINE	
	PROPERTY LINE (AFTER DEDICATIONS)	
	PROPERTY LINE (CURRENT)	
	PARCEL LINE	
	FLOOD ZONE DESIGNATION	
2445	CONTOUR LINE	
	SOLAR ARRAY FIELD	
	= SURVEY CONTROL MONUMENT AS NOTED	
	= LOS ANGELES COUNTY BENCHMARK AS NOTED	
	= TREE 12" & 24"	
	= LARGE BUSH	
	= PADDLE MARKER POST	
	= POWER POLE	
	= GUY WIRE	
	= MAILBOX	
	= TELEPHONE RISER	
	= POST	
	= STANDPIPE	
	= EDGE OF PAVEMENT	
	= FENCE	
TW	= TOP OF WALL	
EP	= EDGE OF PAVEMENT	
5	= EASEMENT IDENTIFIER	

DRAINAGE CONVEYANCE PATH PER HYDROLOGY REPORT

10' WIDE VEGETATIVE BUFFER

10' WIDE SLOPE EASEMENT

BENCHMARK:

LOS ANGELES COUNTY BENCHMARK L 6439, LANCASTER 2004 ADJUSTMENT, NAVD 1988, ELEVATION = 2462.062 FEET

C-NAIL IN CONC STANDPIPE @ SW COR AVE I & 100TH ST W 19.8M(65FT) S/O & 10.7M(35FT) W/O C/L INT

R2011-00807 (RCUP201100076) C-01

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.

17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System

APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks

Project Address:
90th St. W & W Ave. J
Los Angeles County, CA

SCH # 2012061068

DRAWING: SITE PLAN-NORTH

APPLICANT:

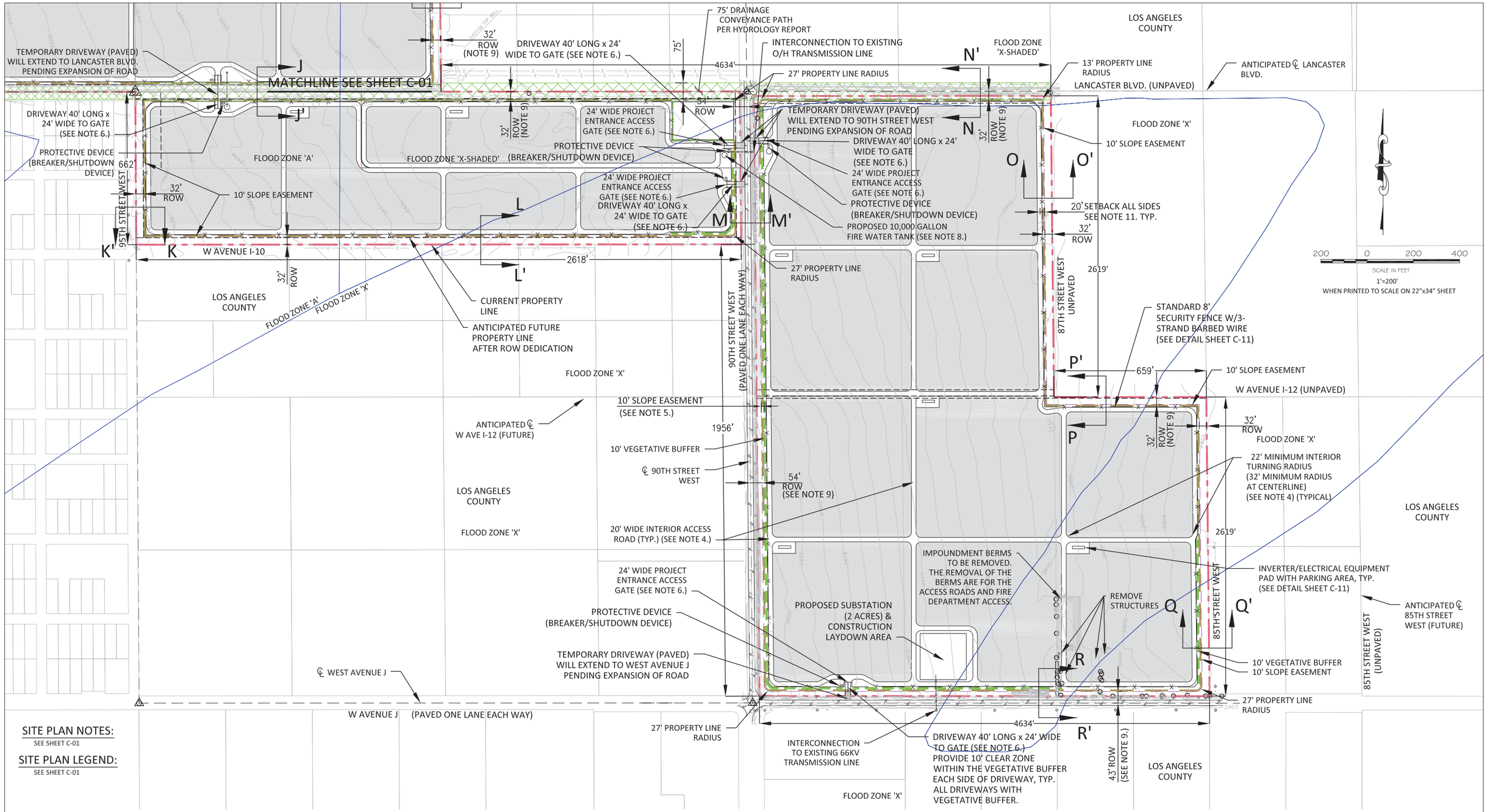
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 4
ANTELOPE SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\CAD\PROJECTS\196-4336 SILVERADO POWER\SP LA-CUP_14-032AY94-10A\C-01-SITE PLAN-10A.DWG
PLOT/PAGE: Mar 24, 2014 - 8:14 PM



SITE PLAN NOTES:

SEE SHEET C-01

SITE PLAN LEGEND:

SEE SHEET C-01

R2011-00807 (RCUP201100076) C-02

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

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17885 VON KARMAN AVENUE, SUITE 500
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52MW AC Solar Photovoltaic Generation System

APNs 3218-002-018, 023
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3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks

Project Address:
90th St. W & W Ave. J
Los Angeles County, CA

SCH # 2012061068

DRAWING: SITE PLAN-SOUTH

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 4
ANTELOPE SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

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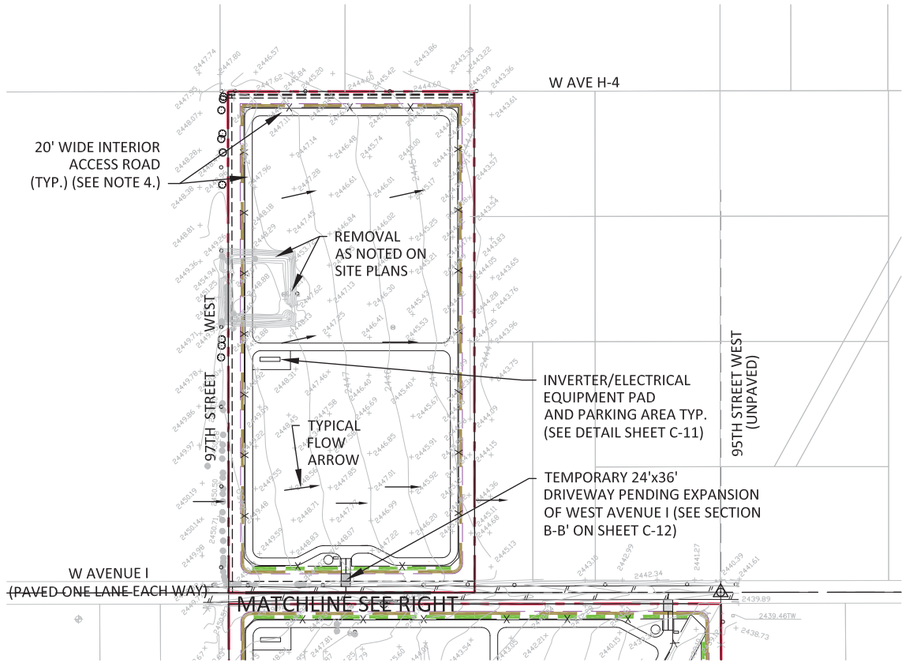


SURVEY INFORMATION:

TOPOGRAPHIC MAP AND 1' CONTOURING PREPARED BY ALL VALLEY SURVEYING, JANUARY 22, 2012

SURVEYOR:

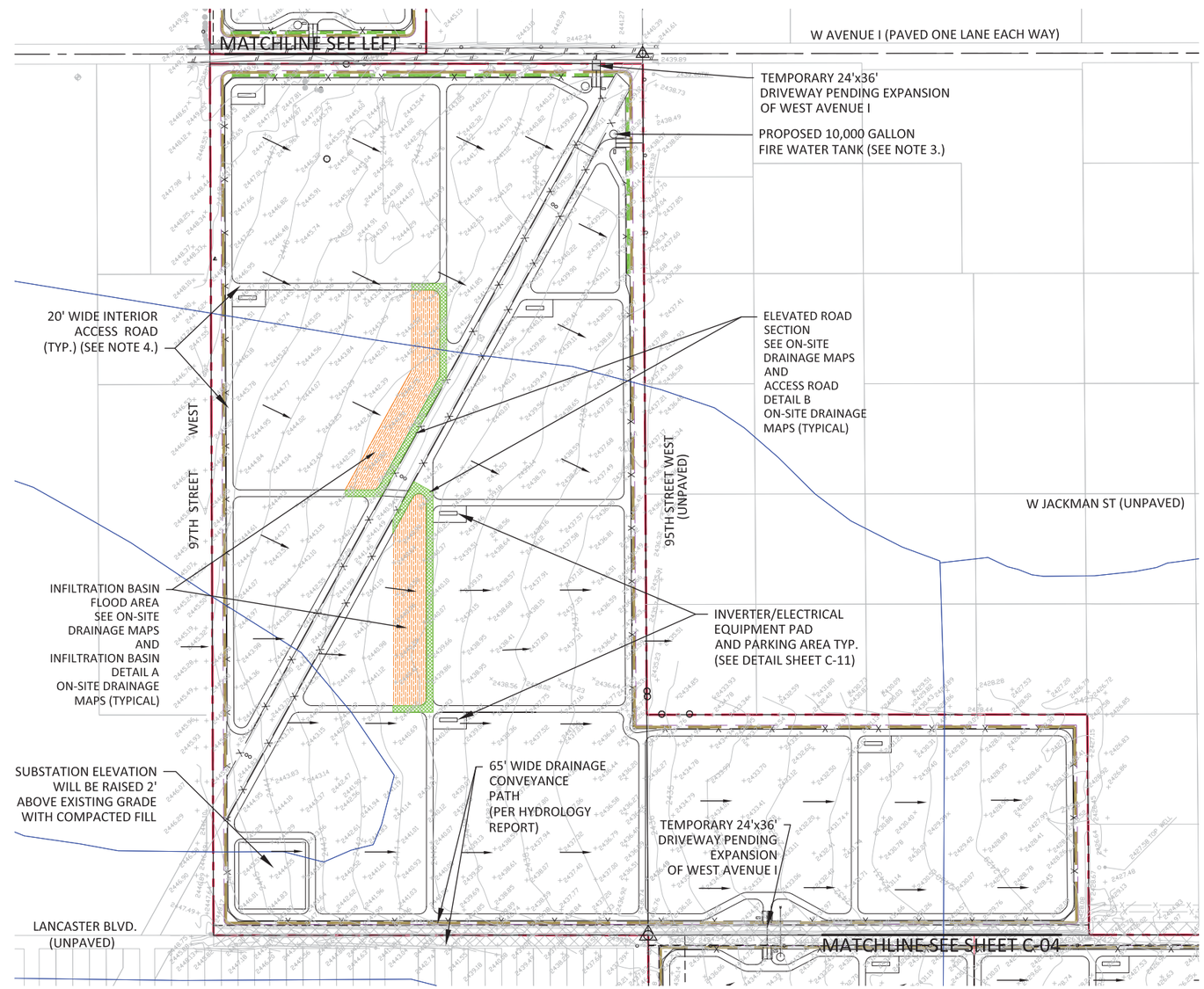
LARRY E. JERNIGAN, PLS #5924
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA 93534
(661) 942-3639

BASIS OF BEARINGS:

SEE TOPOGRAPHIC MAP SHEET G-01

BENCHMARK:

SEE TOPOGRAPHIC MAP SHEET G-01



EARTHWORK QUANTITIES:

OVEREXCAVATION	=	60,000 CUBIC YARDS
CUT	=	4,200 CUBIC YARDS
FILL	=	4,200 CUBIC YARDS

CUT & FILL QUANTITIES INCLUDE INVERTER PADS, SUBSTATIONS/SWITCHYARDS, BASINS, AND ELEVATED ROAD BED FOR DRAINAGE FEATURES.

OVEREXCAVATION QUANTITY INCLUDES ACCESSIBLE FIRE ROAD.

200 0 200 400
SCALE IN FEET

1'=200'
WHEN PRINTED TO SCALE ON 22"x34" SHEET

GRADING NOTES:

1. DRAINAGE ACROSS SITE IS CURRENTLY FROM THE WEST TO THE EAST, AS SHOWN ON THE SURFACE CONTOURS. TOPOGRAPHY/CONTOURS ARE BASED ON SURVEY DATA PROVIDED BY ALL VALLEY SURVEYING.

2. OVERALL EXISTING GRADING AND DRAINAGE PATTERN TO REMAIN UNCHANGED DURING AND AFTER CONSTRUCTION WITH THE EXCEPTION OF AREAS USED FOR DRAINAGE FEATURES. ELEVATED ROAD SECTIONS WILL BE USED TO CREATE INFILTRATION BASINS. FLOOD AREAS AND FLOW PATTERN ARROWS ARE SHOWN ON THIS SHEET AND SHEETS C-04 - C-10. LIMIT OF GRADING ACTIVITIES WILL BE AT PROPERTY LINE (AFTER DEDICATIONS) EXCEPT WHERE NOTED.

3. EQUIPMENT PADS WILL BE GRADED AS REQUIRED PER MANUFACTURER SPECIFICATIONS.

GRADING LEGEND:

TYP.	TYPICAL
MIN	MINIMUM
O/H	OVERHEAD LINES
ROW	RIGHT OF WAY
℄	CENTERLINE
—— x —— x ——	FENCE LINE
	PROPERTY LINE (AFTER DEDICATIONS)
	PROPERTY LINE (CURRENT)
	PARCEL LINE
	FLOOD ZONE DESIGNATION
	CONTOUR LINE
	INFILTRATION BASIN FLOOD AREA
	ELEVATED ROAD SECTION
	= SURVEY CONTROL MONUMENT AS NOTED
	= LOS ANGELES COUNTY BENCHMARK AS NOTED
	= TREE 12" & 24"
	= LARGE BUSH
	= PADDLE MARKER POST
	= POWER POLE
	= GUY WIRE
	= MAILBOX
TW	= TOP OF WALL
EP	= EDGE OF PAVEMENT
	= EASEMENT IDENTIFIER
	DRAINAGE CONVEYANCE PATH PER HYDROLOGY REPORT
	10' WIDE VEGETATIVE BUFFER
	10' WIDE SLOPE EASEMENT
	= TELEPHONE RISER
	= POST
	= STANDPIPE
	= EDGE OF PAVEMENT
	= FENCE

R2011-00807 (RCUP201100076) C-03

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

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17885 VON KARMAN AVENUE, SUITE 500
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TEL: 949.809.5000

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NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

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52MW AC Solar Photovoltaic Generation System

APNs 3218-002-018, 023
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Project Address:
90th St. W & W Ave. J
Los Angeles County, CA

SCH # 2012061068

DRAWING: GRADING PLAN N

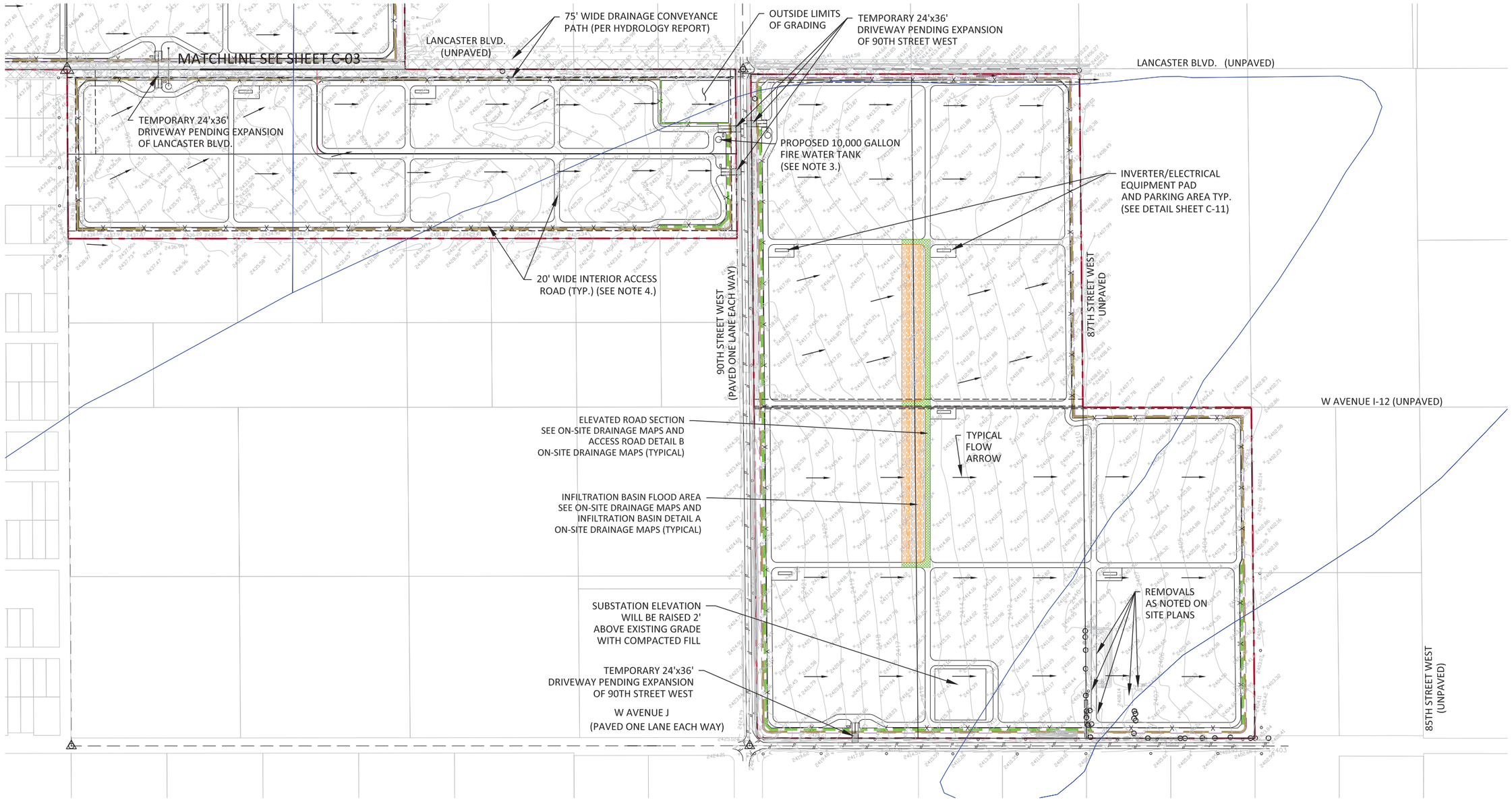
APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 4
ANTELOPE SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\CAD\PROJECTS\106-4338_SILVERADO_POWER\SP_LA-CUP_14-0324\P4-10A\C-03-GRADE PLAN-10A.DWG
PLOT/UPDATE: Mar 24, 2014 12:6:28 PM



GRADING NOTES:

SEE SHEET C-03

GRADING LEGEND:

SEE SHEET C-03

R2011-00807 (RCUP201100076) **C-04**

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System

APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks

Project Address:
90th St. W & W Ave. J
Los Angeles County, CA

SCH # 2012061068

DRAWING: GRADING PLAN S

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 4
ANTELOPE SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\CAD\PROJECTS\106-4336 SILVERADO POWER\SP LA-CUP_P4-0324\P4-10A\C-03-GRADE PLAN-10A.DWG
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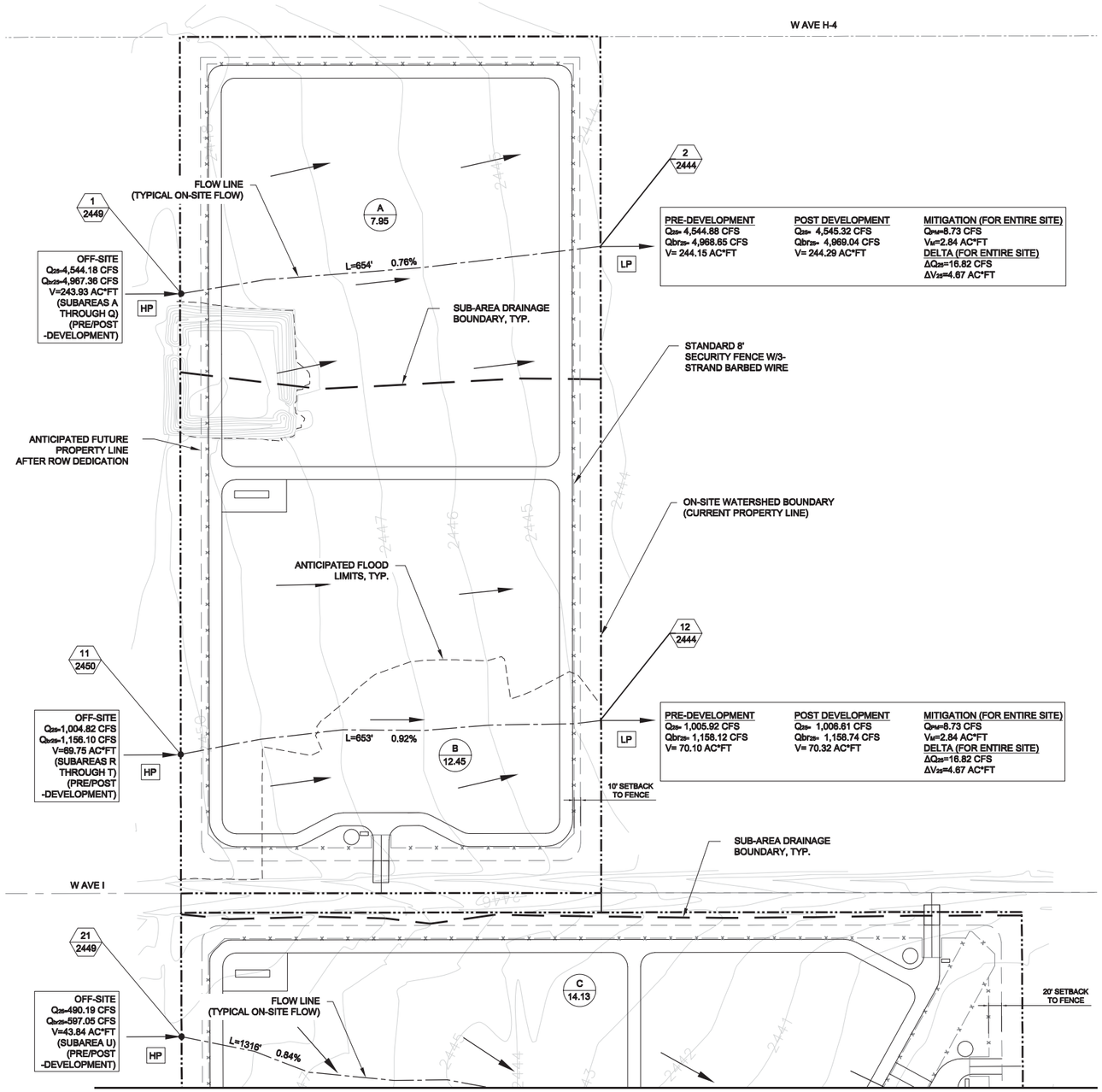


MATCHLINE: SEE SHEET C-06

LEGEND:

XX / XX.X	SUBAREA ID / ACREAGE
XX / XXX	NODE ID / ELEVATION
HP	HIGH POINT
LP	LOW POINT
	WATERSHED BOUNDARY
	FUTURE PROPERTY LINE
X	SECURITY FENCING
	FLOW LINE
	SUB-AREA BOUNDARY
	ANTICIPATED 25-YR FLOOD LIMITS
	ELEVATED ROAD SECTION
	INFILTRATION BASIN FLOOD AREA

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Q_{br25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = 112,283 CY

DRAINAGE CONCEPT NOTES:
1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
2) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3) APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTES).
4) AN OFFSITE DRAINAGE COVENANT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
5) A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
6) A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
7) BASIN SIZES ARE DEPENDENT ON THE VERIFICATION OF PERCOLATION RATES AND ARE SUBJECT TO CHANGE.
8) WITHIN A FEMA ZONE A, FEMA ZONE X - UNSHADED, AND FEMA ZONE X - SHADED.
9) WITHIN A COUNTY ADOPTED FLOODWAY.
10) ALL BASINS ARE PRIVATELY MAINTAINED.
11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATES (Q_{50}) INCREASED BY MAXIMUM OF 0.7%, AND THE VOLUMES (V_{50}) INCREASED BY A MAXIMUM OF 3.5%. SIMILAR INCREASES ARE ANTICIPATED FOR THE DEPTHS AND VELOCITIES DUE TO THE SMALL INCREASE IN PEAK FLOW RATES (<1%). THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. THE POST-DEVELOPMENT DOES NOT INCLUDE THE MITIGATION EFFECTS OF THE BASINS. SEE IMPACT ANALYSIS CALCULATIONS.

0 50 100 200
SCALE: 1"=100'

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____RCE NO:_____DATE_____
CHECKED BY:_____DATE_____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00807 (RCUP201100076) C-05

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System
APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks
Project Address:
90th St. W & W Ave. J
Los Angeles County, CA
SCH # 2012061068

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100076 ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

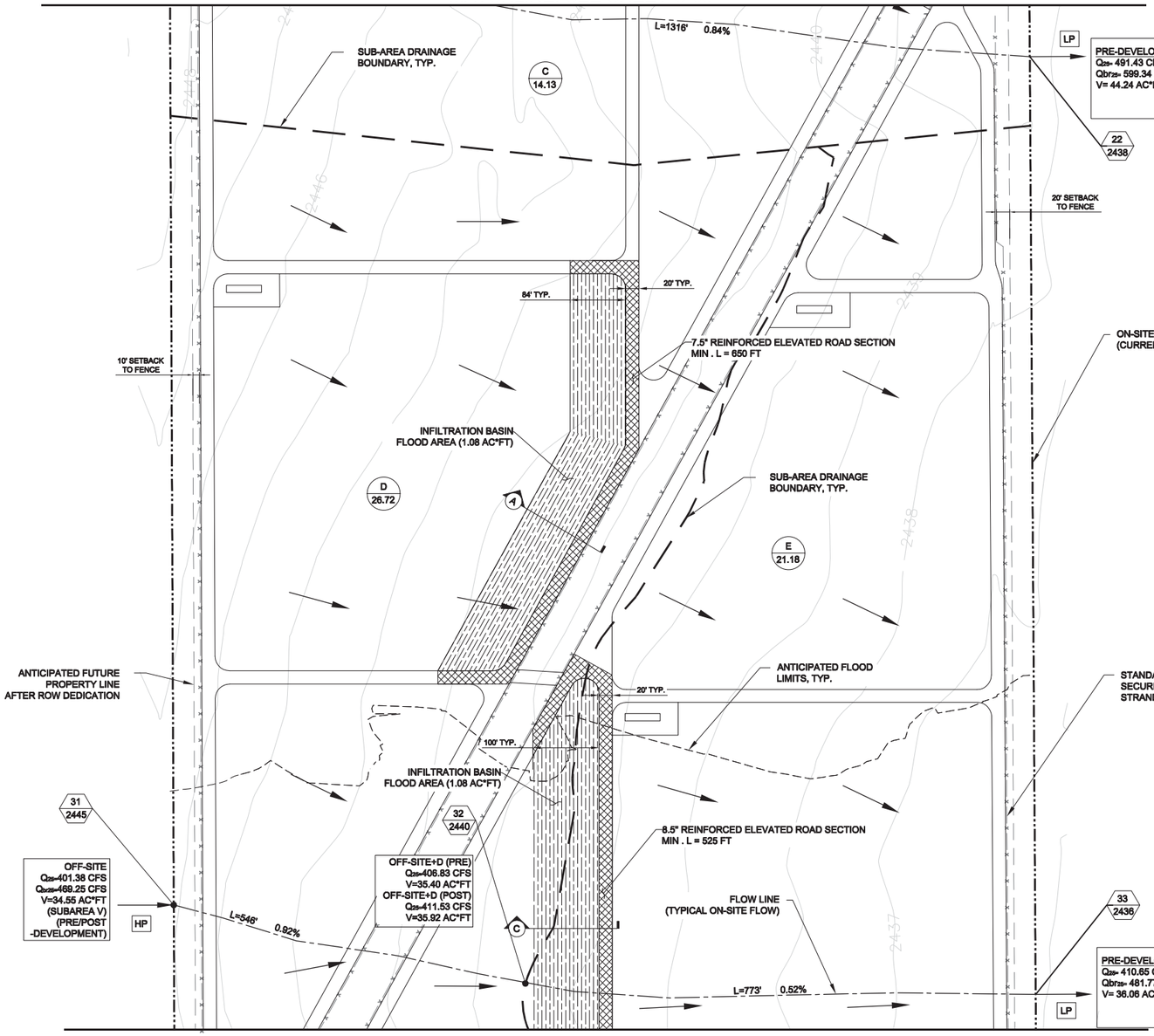
SILVERADO power

PROJECT 4
ANTELOPE SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\04041\135--04646-12001\SUPPORTDOCS\CALCS\HYDROLOGY\10A\FINAL DESIGN\ONSITE HYDROLOGY C-05,C-06.DWG
PLOT/UPDATE: Dec 12, 2013 10:14:46 AM

MATCHLINE: SEE SHEET C-05



PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION (FOR ENTIRE SITE)
Q_{25}= 491.43 CFS	Q_{25}= 492.22 CFS	Q_{PM}=8.73 CFS
Qbr_{25}= 599.34 CFS	Qbr_{25}= 600.04 CFS	V_M=2.84 AC*FT
V= 44.24 AC*FT	V= 44.49 AC*FT	DELTA (FOR ENTIRE SITE)
		ΔQ_{25}=16.82 CFS
		ΔV_{25}=4.67 AC*FT

PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION (FOR ENTIRE SITE)
Q_{25}= 410.65 CFS	Q_{25}= 416.39 CFS	Q_{PM}=8.73 CFS
Qbr_{25}= 481.77 CFS	Qbr_{25}= 487.35 CFS	V_M=2.84 AC*FT
V= 36.06 AC*FT	V= 36.96 AC*FT	DELTA (FOR ENTIRE SITE)
		ΔQ_{25}=16.82 CFS
		ΔV_{25}=4.67 AC*FT

MATCHLINE: SEE SHEET C-07

LEGEND:

- XX / XX.X — SUBAREA ID / ACREAGE
- XX / XXX — NODE ID / ELEVATION
- HP — HIGH POINT
- LP — LOW POINT
- WATERSHED BOUNDARY
- FUTURE PROPERTY LINE
- SECURITY FENCING
- FLOW LINE
- SUB-AREA BOUNDARY
- ANTICIPATED 25-YR FLOOD LIMITS
- ELEVATED ROAD SECTION
- INFILTRATION BASIN FLOOD AREA

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Qbr_{25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = 112,283 CY

DRAINAGE CONCEPT NOTES:
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0 50 100 200
SCALE: 1"=100'

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____RCE NO:_____DATE_____
CHECKED BY:_____DATE _____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00807 (RCUP201100076) C-06

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System
APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks
Project Address:
90th St. W & W Ave. J
Los Angeles County, CA
SCH # 2012061068

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100076 ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 4
ANTELOPE SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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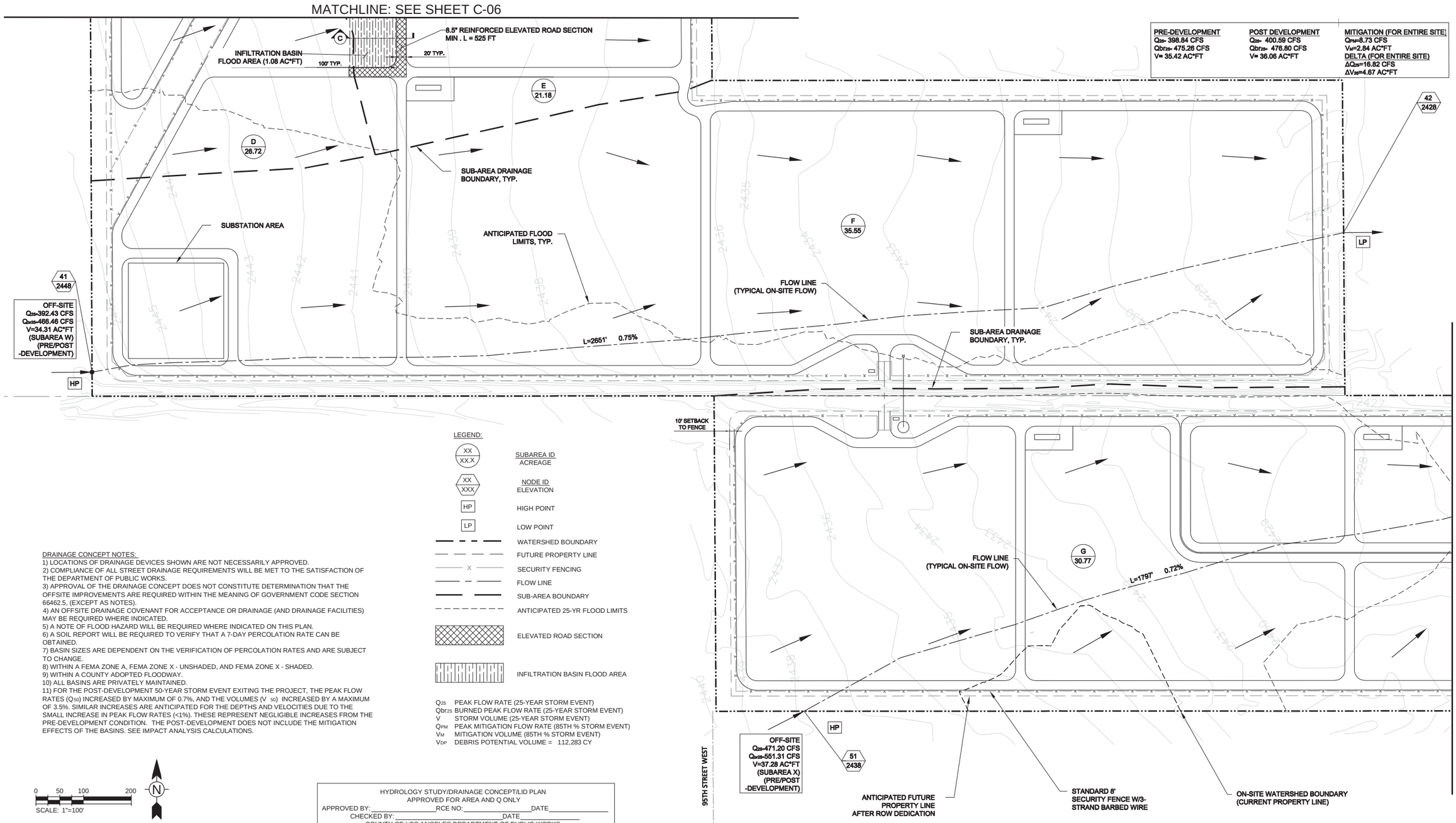

PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION (FOR ENTIRE SITE)
Q_{25}= 398.84 CFS	Q_{25}= 400.59 CFS	Q_{PM}=8.73 CFS
Q_{br25}= 475.26 CFS	Q_{br25}= 476.80 CFS	V_M=2.84 AC*FT
V= 35.42 AC*FT	V= 36.06 AC*FT	DELTA (FOR ENTIRE SITE)
		ΔQ_{25}=16.82 CFS
		ΔV_{25}=4.67 AC*FT

LEGEND:

XX / XX.X	SUBAREA ID / ACREAGE
XX / XXX	NODE ID / ELEVATION
HP	HIGH POINT
LP	LOW POINT
	WATERSHED BOUNDARY
	FUTURE PROPERTY LINE
	SECURITY FENCING
	FLOW LINE
	SUB-AREA BOUNDARY
	ANTICIPATED 25-YR FLOOD LIMITS
	ELEVATED ROAD SECTION
	INFILTRATION BASIN FLOOD AREA

DRAINAGE CONCEPT NOTES:

1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
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11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATES (Q_{50}) INCREASED BY MAXIMUM OF 0.7%, AND THE VOLUMES (V_{50}) INCREASED BY A MAXIMUM OF 3.5%. SIMILAR INCREASES ARE ANTICIPATED FOR THE DEPTHS AND VELOCITIES DUE TO THE SMALL INCREASE IN PEAK FLOW RATES (<1%). THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. THE POST-DEVELOPMENT DOES NOT INCLUDE THE MITIGATION EFFECTS OF THE BASINS. SEE IMPACT ANALYSIS CALCULATIONS.

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Q_{br25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = 112,283 CY

0 50 100 200
SCALE: 1"=100'

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____RCE NO:_____DATE_____
CHECKED BY:_____DATE_____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00807 (RCUP201100076) C-07

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System
APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks
Project Address:
90th St. W & W Ave. J
Los Angeles County, CA
SCH # 2012061068

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID
FOR CUP 201100076
ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power
2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

PROJECT 4
ANTELOPE SOLAR
GREENWORKS
LOS ANGELES COUNTY, CA

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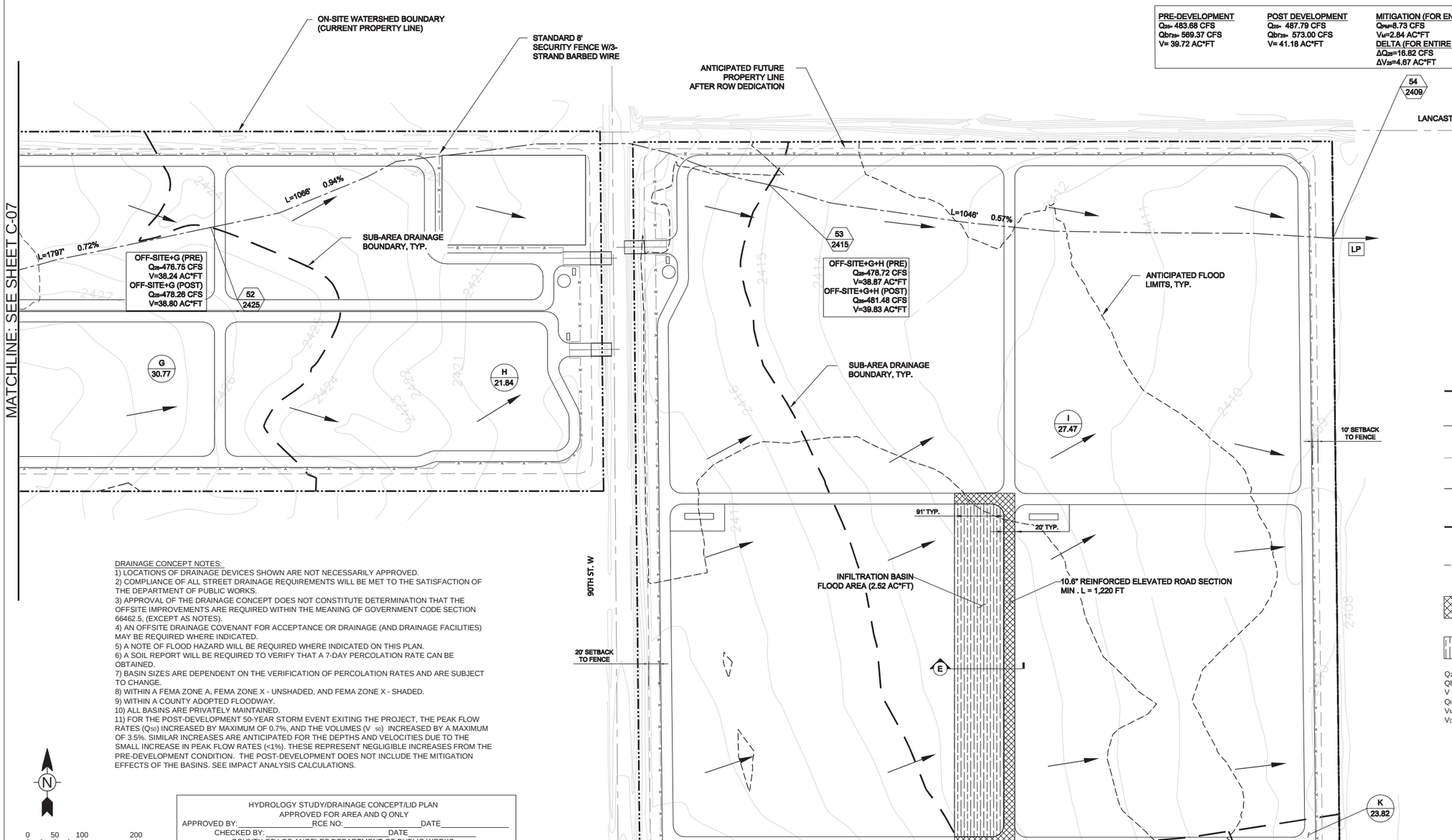
PLOT/UPDATE: Dec 6, 2013 1:24:54 PM

PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION (FOR ENTIRE SITE)
Q_{25}= 483.68 CFS	Q_{25}= 487.79 CFS	Q_{PM}=8.73 CFS
Qbr_{25}= 569.37 CFS	Qbr_{25}= 573.00 CFS	V_M=2.84 AC*FT
V= 39.72 AC*FT	V= 41.18 AC*FT	DELTA (FOR ENTIRE SITE)
		ΔQ_{25}=16.82 CFS
		ΔV_{25}=4.67 AC*FT



LEGEND:

- XX / XX.X — SUBAREA ID / ACREAGE
- XX / XXX — NODE ID / ELEVATION
- HP — HIGH POINT
- LP — LOW POINT
- WATERSHED BOUNDARY
- FUTURE PROPERTY LINE
- X — SECURITY FENCING
- FLOW LINE
- SUB-AREA BOUNDARY
- ANTICIPATED 25-YR FLOOD LIMITS
- ELEVATED ROAD SECTION
- INFILTRATION BASIN FLOOD AREA

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Qbr_{25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = 112,283 CY

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N

0 50 100 200
SCALE: 1"=100'

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO: _____ DATE _____
CHECKED BY: _____ DATE _____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00807 (RCUP201100076) C-08

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA

JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:

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TEL: 949.809.5000

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NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

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52MW AC Solar Photovoltaic Generation System
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Project Name:
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90th St. W & W Ave. J
Los Angeles County, CA
SCH # 2012061068

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100076 ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

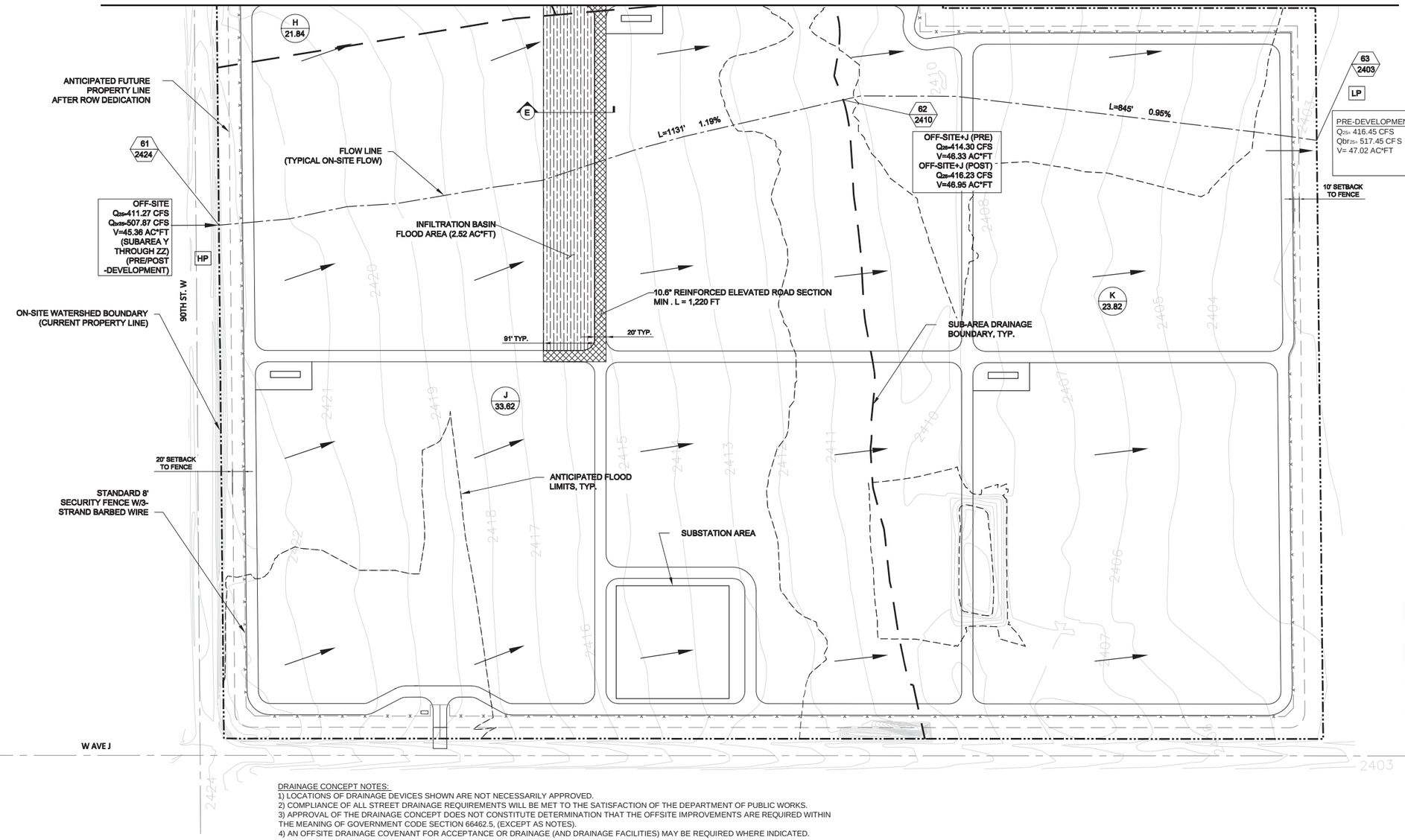
SILVERADO power

PROJECT 4
ANTELOPE SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\045461\135-045461-1000\SUPPORTDOCS\CALCS\HYDROLOGY\10A\FINAL DESIGN\ONSITE HYDROLOGY C-07\C-08.DWG
PLOT/APRIL 02, Dec 6, 2013 1:24:54 PM

MATCHLINE: SEE SHEET C-08



PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION (FOR ENTIRE SITE)
Q_{25}= 416.45 CFS	Q_{25}= 419.75 CFS	Q_{PM}=8.73 CFS
Qbr_{25}= 517.45 CFS	Qbr_{25}= 520.36 CFS	V_M=2.84 AC*FT
V= 47.02 AC*FT	V= 48.08 AC*FT	DELTA (FOR ENTIRE SITE)
		ΔQ_{25}=16.82 CFS
		ΔV_{25}=4.67 AC*FT

LEGEND:

- XX / XX.X — SUBAREA ID / ACREAGE
- XX / XXX — NODE ID / ELEVATION
- HP — HIGH POINT
- LP — LOW POINT
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- FUTURE PROPERTY LINE
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- ANTICIPATED 25-YR FLOOD LIMITS
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Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Qbr_{25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = 112,283 CY

DRAINAGE CONCEPT NOTES:

1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
2) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3) APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTES).
4) AN OFFSITE DRAINAGE COVENANT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
5) A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
6) A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
7) BASIN SIZES ARE DEPENDENT ON THE VERIFICATION OF PERCOLATION RATES AND ARE SUBJECT TO CHANGE.
8) WITHIN A FEMA ZONE A, FEMA ZONE X - UNSHADED, AND FEMA ZONE X - SHADED.
9) WITHIN A COUNTY ADOPTED FLOODWAY.
10) ALL BASINS ARE PRIVATELY MAINTAINED.
11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATES (Q_{50}) INCREASED BY MAXIMUM OF 0.7%, AND THE VOLUMES (V_{50}) INCREASED BY A MAXIMUM OF 3.5%. SIMILAR INCREASES ARE ANTICIPATED FOR THE DEPTHS AND VELOCITIES DUE TO THE SMALL INCREASE IN PEAK FLOW RATES (<1%). THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. THE POST-DEVELOPMENT DOES NOT INCLUDE THE MITIGATION EFFECTS OF THE BASINS. SEE IMPACT ANALYSIS CALCULATIONS.

N

0 50 100 200
SCALE: 1"=100'

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____RCE NO:_____DATE_____
CHECKED BY:_____DATE_____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00807 (RCUP201100076) C-09

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System
APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks
Project Address:
90th St. W & W Ave. J
Los Angeles County, CA
SCH # 2012061068

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100076 ON-SITE DRAINAGE MAP

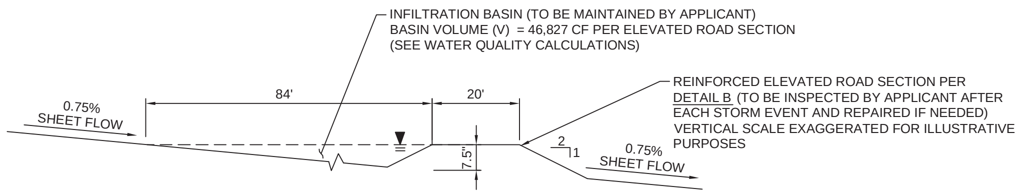
APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 4
ANTELOPE SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

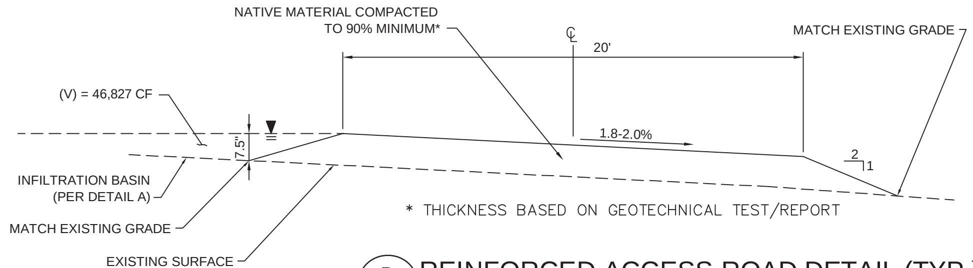
2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\04646\135-04646-12001\SUPPORTDOCS\CALCS\HYDROLOGY\10A\FINAL DESIGN\ONSITE HYDROLOGY C-09.DWG
PLOT DATE: Dec 16, 2013 - 12:25 PM



A INFILTRATION BASIN DETAIL

SCALE: NTS



B REINFORCED ACCESS ROAD DETAIL (TYP.)

SCALE: NTS

HYDROLOGY RESULTS: (BASED ON LA FLOOD CONTROL TC CALCULATOR)

ON SITE HYDROLOGY (PRE-DEVELOPMENT)

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre ft)
Project 4	A	7.95	0.01	25	134	654	0.0076	3.1	30	0.80	0.10	0.11	0.70	0.34	1.29	0.22
Project 4	B	12.45	0.01	25	134	653	0.0092	3.1	30	0.80	0.10	0.11	1.10	0.34	2.02	0.35
Project 4	C	14.13	0.01	25	134	1316	0.0084	3.1	30	0.80	0.10	0.11	1.24	0.34	2.29	0.40
Project 4	D	26.72	0.01	25	120	546	0.0092	3.2	28	0.85	0.23	0.24	5.45	0.34	7.28	0.85
Project 4	E	21.18	0.01	25	120	773	0.0052	3.2	30	0.82	0.21	0.22	3.82	0.34	5.24	0.66
Project 4	F	35.55	0.01	25	120	2651	0.0075	3.2	30	0.82	0.21	0.22	6.41	0.34	8.80	1.11
Project 4	G	30.77	0.01	25	120	1797	0.0072	3.2	30	0.82	0.21	0.22	5.55	0.34	7.62	0.96
Project 4	H	21.84	0.01	25	134	1066	0.0094	3.2	30	0.82	0.10	0.11	1.97	0.34	3.64	0.63
Project 4	I	27.47	0.01	25	120	1046	0.0057	3.2	30	0.82	0.21	0.22	4.96	0.34	6.80	0.85
Project 4	J	33.62	0.01	25	134	1131	0.0119	3.2	30	0.82	0.10	0.11	3.03	0.34	5.61	0.97
Project 4	K	23.82	0.01	25	134	845	0.0095	3.2	30	0.82	0.10	0.11	2.15	0.34	3.97	0.69
Project 4	A	7.95	0.01	50	134	654	0.0076	3.5	30	0.91	0.10	0.11	0.80	0.34	1.49	0.25
Project 4	B	12.45	0.01	50	134	653	0.0092	3.5	30	0.91	0.10	0.11	1.25	0.34	2.33	0.40
Project 4	C	14.13	0.01	50	134	1316	0.0084	3.5	30	0.91	0.10	0.11	1.41	0.34	2.64	0.45
Project 4	D	26.72	0.01	50	120	546	0.0092	3.6	18	1.19	0.38	0.39	12.40	0.34	14.61	1.08
Project 4	E	21.18	0.01	50	120	773	0.0052	3.6	30	0.94	0.29	0.30	5.97	0.34	7.48	0.79
Project 4	F	35.55	0.01	50	120	2651	0.0075	3.6	30	0.94	0.29	0.30	10.03	0.34	12.56	1.33
Project 4	G	30.77	0.01	50	120	1797	0.0072	3.6	30	0.94	0.29	0.30	8.68	0.34	10.87	1.15
Project 4	H	21.84	0.01	50	134	1066	0.0094	3.6	30	0.94	0.10	0.11	2.26	0.34	4.24	0.72
Project 4	I	27.47	0.01	50	120	1046	0.0057	3.6	30	0.94	0.29	0.30	7.75	0.34	9.70	1.03
Project 4	J	33.62	0.01	50	134	1131	0.0119	3.6	30	0.94	0.10	0.11	3.48	0.34	6.52	1.11
Project 4	K	23.82	0.01	50	134	845	0.0095	3.6	30	0.94	0.10	0.11	2.46	0.34	4.62	0.79

ON SITE HYDROLOGY (POST-DEVELOPMENT)

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre ft)
Project 4	A	7.95	0.1	25	134	654	0.0076	3.1	30	0.80	0.10	0.18	1.14	0.34	1.68	0.36
Project 4	B	12.45	0.1	25	134	653	0.0092	3.1	30	0.80	0.10	0.18	1.79	0.34	2.64	0.57
Project 4	C	14.13	0.1	25	134	1316	0.0084	3.1	30	0.80	0.10	0.18	2.03	0.34	2.99	0.65
Project 4	D	26.72	0.1	25	120	546	0.0092	3.2	20	1.00	0.32	0.38	10.15	0.34	11.94	1.37
Project 4	E	21.18	0.1	25	120	773	0.0052	3.2	30	0.82	0.21	0.28	4.86	0.34	6.16	1.04
Project 4	F	35.55	0.1	25	120	2651	0.0075	3.2	30	0.82	0.21	0.28	8.16	0.34	10.34	1.75
Project 4	G	30.77	0.1	25	120	1797	0.0072	3.2	30	0.82	0.21	0.28	7.06	0.34	8.95	1.52
Project 4	H	21.84	0.1	25	134	1066	0.0094	3.2	30	0.82	0.10	0.18	3.22	0.34	4.75	1.03
Project 4	I	27.47	0.1	25	120	1046	0.0057	3.2	30	0.82	0.21	0.28	6.31	0.34	7.99	1.35
Project 4	J	33.62	0.1	25	134	1131	0.0119	3.2	30	0.82	0.10	0.18	4.96	0.34	7.31	1.59
Project 4	K	23.82	0.1	25	134	845	0.0095	3.2	30	0.82	0.10	0.18	3.52	0.34	5.18	1.13
Project 4	A	7.95	0.1	50	134	654	0.0076	3.5	30	0.91	0.10	0.18	1.30	0.34	1.93	0.42
Project 4	B	12.45	0.1	50	134	653	0.0092	3.5	30	0.91	0.10	0.18	2.04	0.34	3.03	0.65
Project 4	C	14.13	0.1	50	134	1316	0.0084	3.5	30	0.91	0.10	0.18	2.31	0.34	3.44	0.74
Project 4	D	26.72	0.1	50	120	546	0.0092	3.6	17	1.22	0.38	0.43	14.02	0.34	16.11	1.62
Project 4	E	21.18	0.1	50	120	773	0.0052	3.6	25	1.02	0.33	0.39	8.43	0.34	9.85	1.26
Project 4	F	35.55	0.1	50	120	2651	0.0075	3.6	30	0.94	0.29	0.35	11.70	0.34	14.01	2.06
Project 4	G	30.77	0.1	50	120	1797	0.0072	3.6	30	0.94	0.29	0.35	10.12	0.34	12.13	1.79
Project 4	H	21.84	0.1	50	134	1066	0.0094	3.6	30	0.94	0.10	0.18	3.70	0.34	5.50	1.18
Project 4	I	27.47	0.1	50	120	1046	0.0057	3.6	30	0.94	0.29	0.35	9.04	0.34	10.83	1.59
Project 4	J	33.62	0.1	50	134	1131	0.0119	3.6	30	0.94	0.10	0.18	5.69	0.34	8.46	1.81
Project 4	K	23.82	0.1	50	134	845	0.0095	3.6	30	0.94	0.10	0.18	4.03	0.34	6.00	1.29
Project 4	A	7.95	0.1	MIT.	134	654	0.0076	0.75	30	0.19	0.10	0.18	0.27	0.34	0.35	0.09
Project 4	B	12.45	0.1	MIT.	134	653	0.0092	0.75	30	0.19	0.10	0.18	0.43	0.34	0.55	0.14
Project 4	C	14.13	0.1	MIT.	134	1316	0.0084	0.75	30	0.19	0.10	0.18	0.48	0.34	0.63	0.16
Project 4	D	26.72	0.1	MIT.	120	546	0.0092	0.75	30	0.19	0.10	0.18	0.91	0.34	1.19	0.30
Project 4	E	21.18	0.1	MIT.	120	773	0.0052	0.75	30	0.19	0.10	0.18	0.72	0.34	0.94	0.24
Project 4	F	35.55	0.1	MIT.	120	2651	0.0075	0.75	30	0.19	0.10	0.18	1.22	0.34	1.58	0.39
Project 4	G	30.77	0.1	MIT.	120	1797	0.0072	0.75	30	0.19	0.10	0.18	1.05	0.34	1.37	0.34
Project 4	H	21.84	0.1	MIT.	134	1066	0.0094	0.75	30	0.19	0.10	0.18	0.75	0.34	0.97	0.24
Project 4	I	27.47	0.1	MIT.	120	1046	0.0057	0.75	30	0.19	0.10	0.18	0.94	0.34	1.22	0.31
Project 4	J	33.62	0.1	MIT.	134	1131	0.0119	0.75	30	0.19	0.10	0.18	1.15	0.34	1.50	0.37
Project 4	K	23.82	0.1	MIT.	134	845	0.0095	0.75	30	0.19	0.10	0.18	0.81	0.34	1.06	0.26

NOTE: FOR INFILTRATION BASIN MITIGATION VOLUME, SUM MIT. FREQUENCY VOLUMES UNDER POST-DEVELOPMENT TABLE. V_{PM}=2.84 AC*FT.

DELTA QUANTITIES FOR DRAINAGE AREA A:
ΔQ25 = 1.14 - 0.70 = 0.44 CFS
ΔV25 = 0.36 - 0.22 = 0.14 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA B:
ΔQ25 = 1.79 - 1.10 = 0.69 CFS
ΔV25 = 0.57 - 0.35 = 0.22 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA C
ΔQ25 = 2.03 - 1.24 = 0.79 CFS
ΔV25 = 0.65 - 0.40 = 0.25 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA D
ΔQ25 = 10.15 - 5.45 = 4.70 CFS
ΔV25 = 1.37 - 0.85 = 0.52 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA E
ΔQ25 = 4.86 - 3.82 = 1.04 CFS
ΔV25 = 1.04 - 0.66 = 0.38 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA F
ΔQ25 = 8.16 - 6.41 = 1.75 CFS
ΔV25 = 1.75 - 1.11 = 0.64 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA G
ΔQ25 = 7.06 - 5.55 = 1.51 CFS
ΔV25 = 1.52 - 0.96 = 0.56 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA H
ΔQ25 = 3.22 - 1.97 = 1.25 CFS
ΔV25 = 1.03 - 0.63 = 0.40 AC*FT

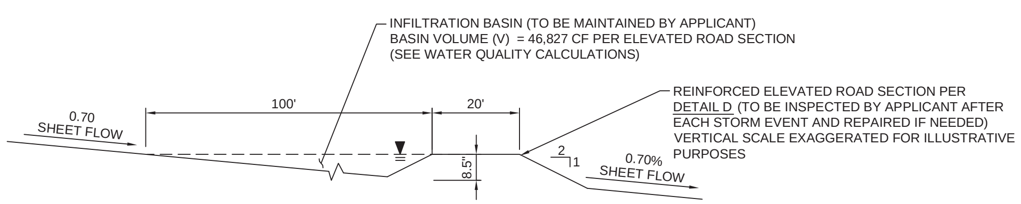
DELTA QUANTITIES FOR DRAINAGE AREA I
ΔQ25 = 6.31 - 4.96 = 1.35 CFS
ΔV25 = 1.35 - 0.85 = 0.50 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA J
ΔQ25 = 4.96 - 3.03 = 1.93 CFS
ΔV25 = 1.59 - 0.97 = 0.62 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA K
ΔQ25 = 3.52 - 2.15 = 1.37 CFS
ΔV25 = 1.13 - 0.69 = 0.44 AC*FT

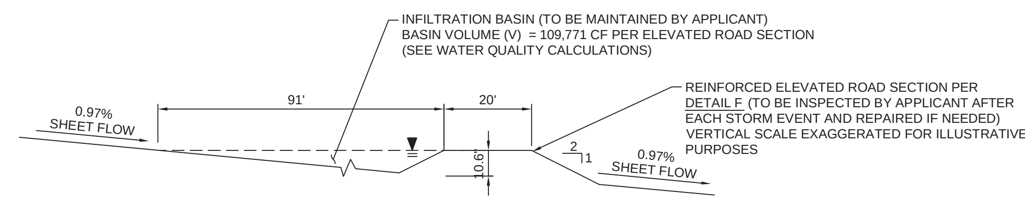
TOTAL DELTA QUANTITIES
ΔQ25 = 16.82 CFS
ΔV25 = 4.67 AC*FT

NOTE: DUE TO THE LID Δ QUANTITIES ABOVE BEING GREATER THAN THE MITIGATION QUANTITIES (Q_{PM} AND V_{PM}) THEY REPRESENT THE WORST CASE SCENARIO BETWEEN THE PRE-/POST DEVELOPMENT CONDITIONS AND THEREFORE SHALL BE USED FOR SIZING THE INFILTRATION BASINS.



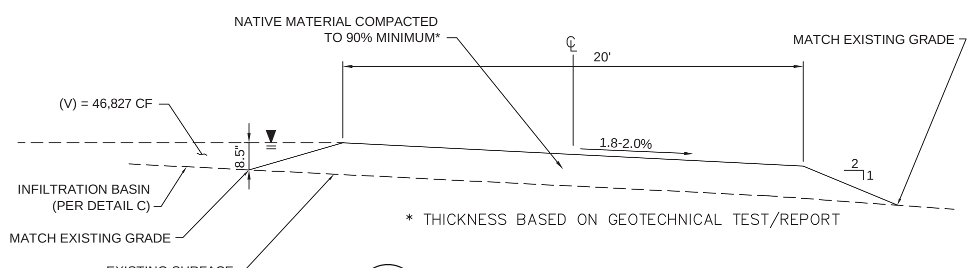
C INFILTRATION BASIN DETAIL

SCALE: NTS



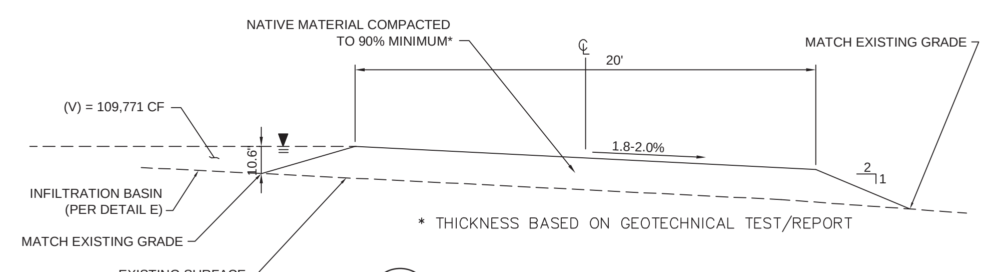
E INFILTRATION BASIN DETAIL

SCALE: NTS



D REINFORCED ACCESS ROAD DETAIL (TYP.)

SCALE: NTS



F REINFORCED ACCESS ROAD DETAIL (TYP.)

SCALE: NTS

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____________RCE NO:_____________DATE_____________
CHECKED BY:_____________DATE_____________
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00807 (RCUP201100076) C-10

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PLOTUPDATE: Dec 2, 2013 8:54 AM

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
JOSEPH E. DIETZ
No. 67032
EXP. 9-30-14
CIVIL
STATE OF CALIFORNIA

JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System
APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks
Project Address:
90th St. W & W Ave. J
Los Angeles County, CA
SCH # 2012061068

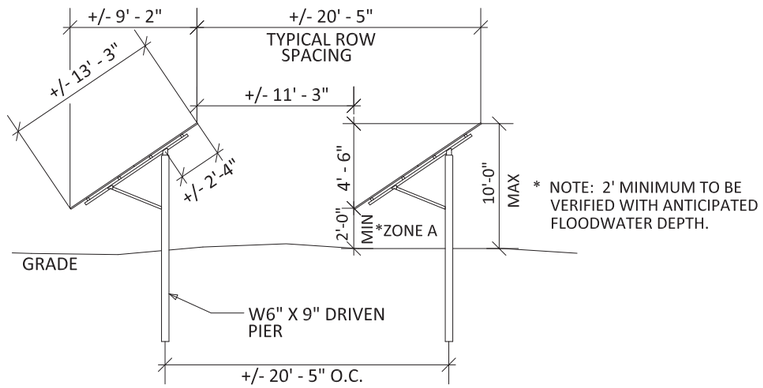
HYDROLOGY STUDY/DRAINAGE CONCEPT/LID
FOR CUP 201100076
ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

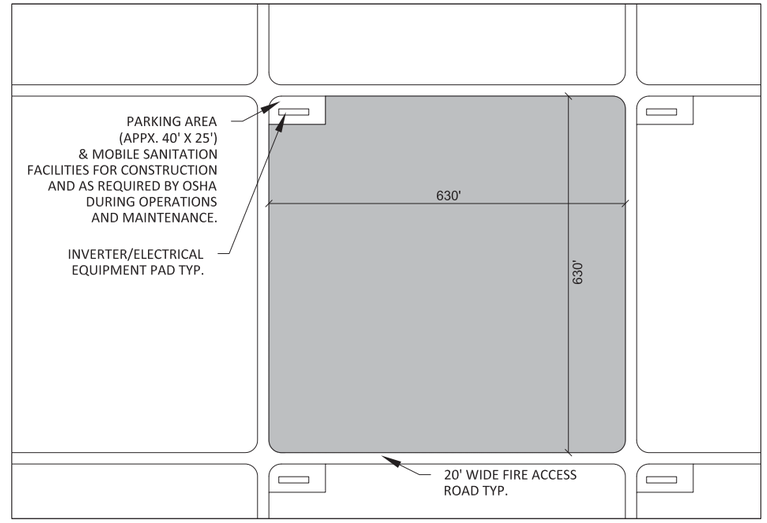
PROJECT 4
ANTELOPE SOLAR
GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main



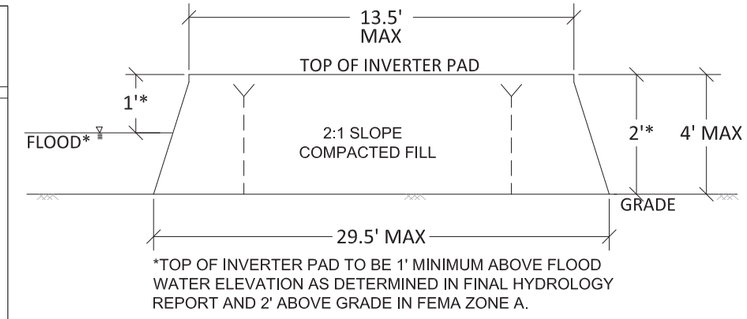
TYPICAL SOLAR ARRAY RACK DETAIL AND END ELEVATION

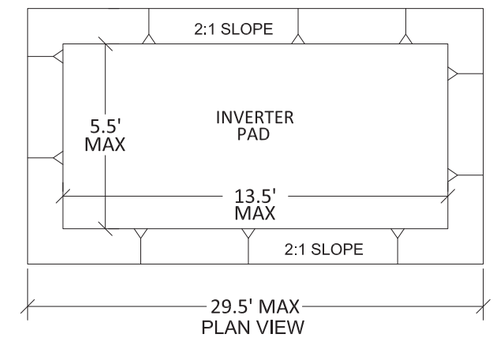
NOT TO SCALE



ARRAY BLOCK DETAIL (TYPICAL)

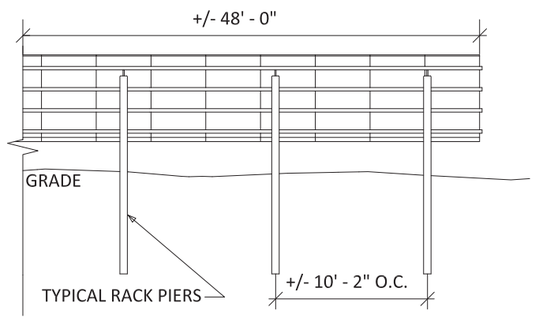
NOT TO SCALE





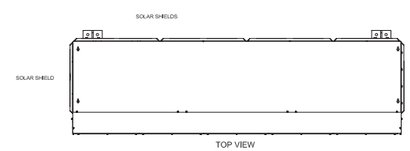
RAISED INVERTER PAD DETAILS FOR FLOOD AREAS AS NEEDED

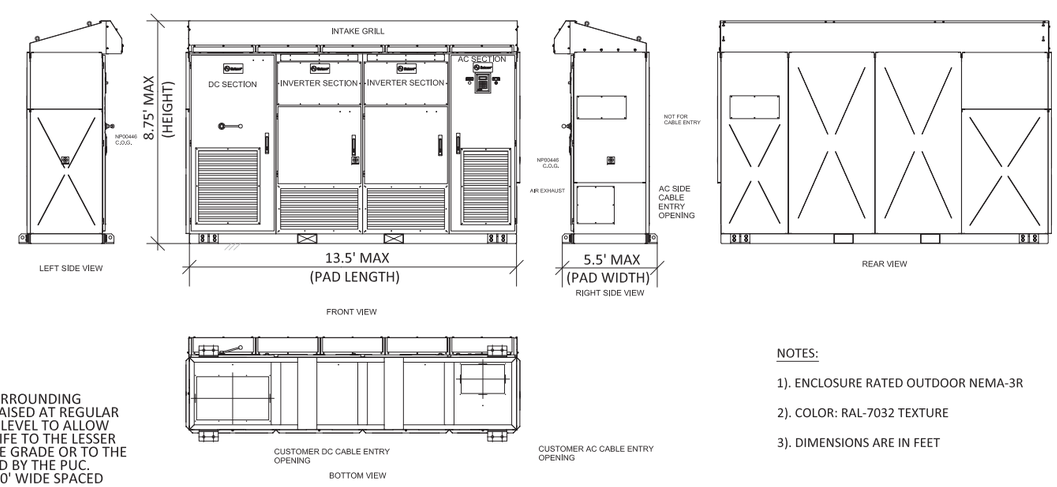
NOT TO SCALE



SOLAR ARRAY RACK DETAIL ELEVATION

NOT TO SCALE



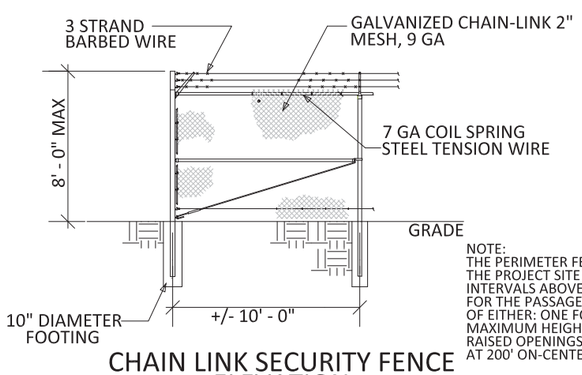


NOTES:

1). ENCLOSURE RATED OUTDOOR NEMA-3R

2). COLOR: RAL-7032 TEXTURE

3). DIMENSIONS ARE IN FEET



NOTE:
THE PERIMETER FENCING SURROUNDING THE PROJECT SITE WILL BE RAISED AT REGULAR INTERVALS ABOVE GROUND LEVEL TO ALLOW FOR THE PASSAGE OF WILDLIFE TO THE LESSER OF EITHER: ONE FOOT ABOVE GRADE OR TO THE MAXIMUM HEIGHT ALLOWED BY THE PUC. RAISED OPENINGS WILL BE 50' WIDE SPACED AT 200' ON-CENTER.

CHAIN LINK SECURITY FENCE ELEVATION

NOT TO SCALE

INVERTER PAD DETAILS (TYPICAL)

NOT TO SCALE

R2011-00807 (RCUP201100076) C-11

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System

APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks

Project Address:
90th St. W & W Ave. J
Los Angeles County, CA

SCH # 2012061068

DRAWING: DETAIL SHEET

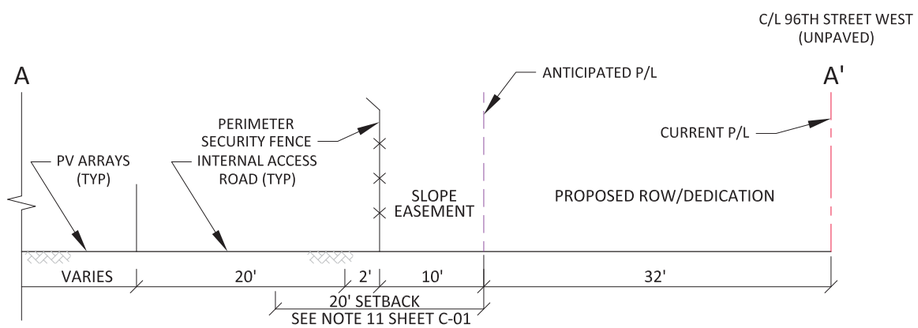
APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 4
ANTELOPE SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\CAD\PROJECTS\06-4336 SILVERADO POWER\VP LA-OUP_14-0324\P4-10A\C-11-DETAIL SHEET-10A.DWG
PLOT/UPDATE: Mar 24, 2014 - 11:6:34 AM



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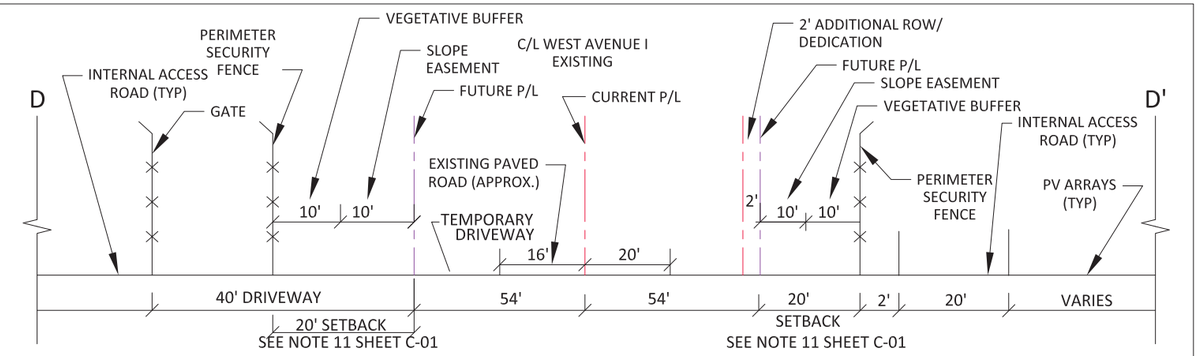

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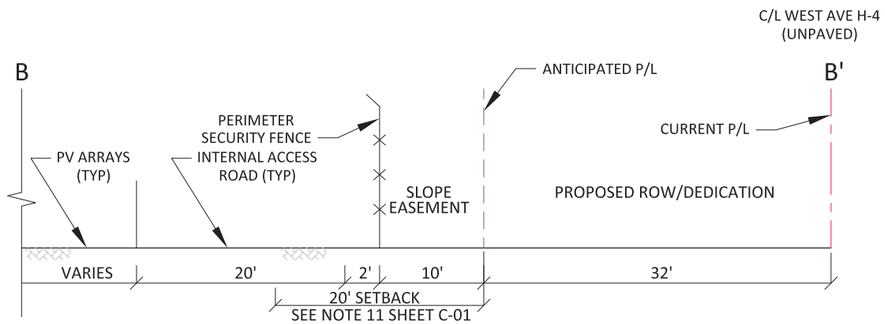

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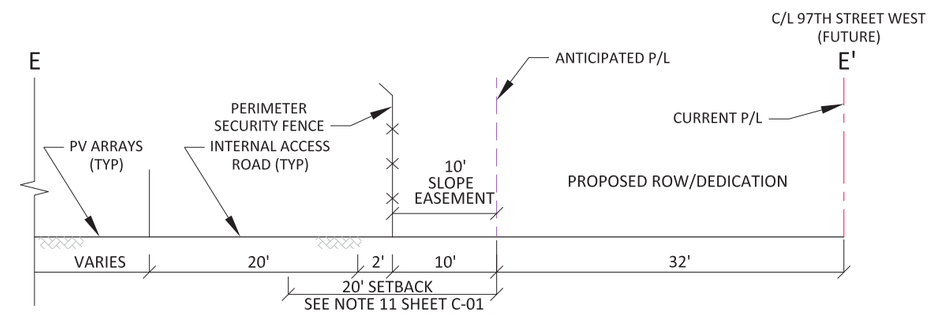

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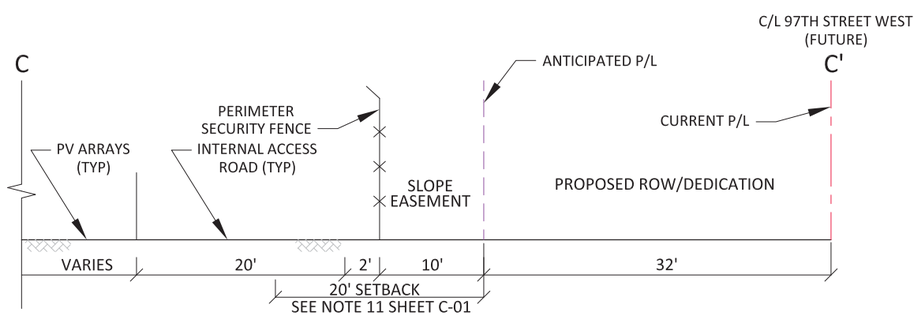

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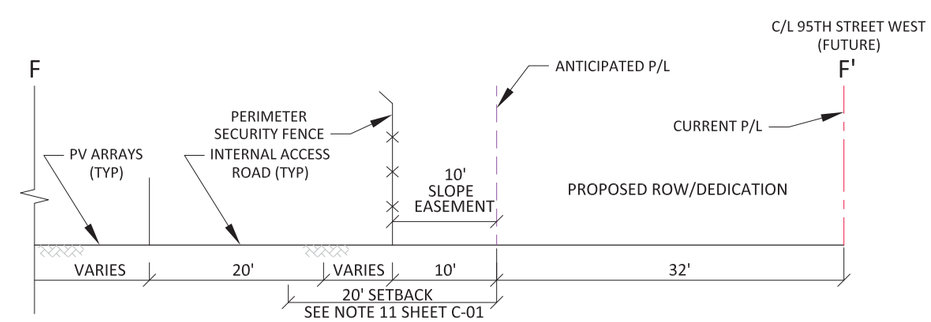


SECTION F - F'

NOT TO SCALE

R2011-00807 (RCUP201100076) C-12

REGISTERED PROFESSIONAL ENGINEER
JULIE ANN DELANEY
No.C54558
CIVIL
STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System

APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks

Project Address:
90th St. W & W Ave. J
Los Angeles County, CA

SCH # 2012061068

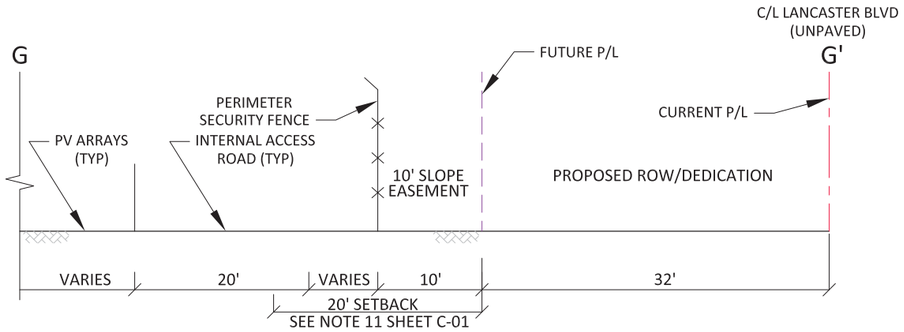
DRAWING: SECTION SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

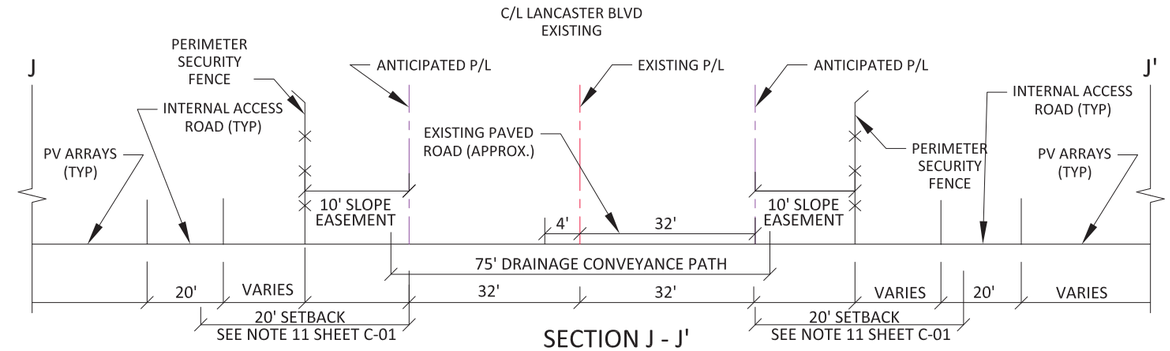
PROJECT 4
ANTELOPE SOLAR
GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main



SECTION G - G'

NOT TO SCALE



SECTION J - J'

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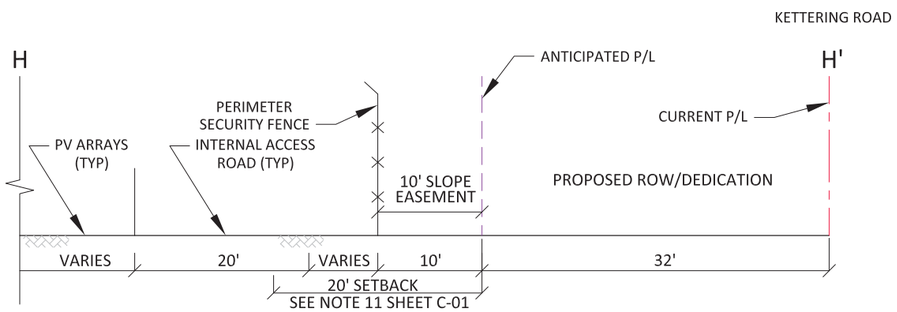
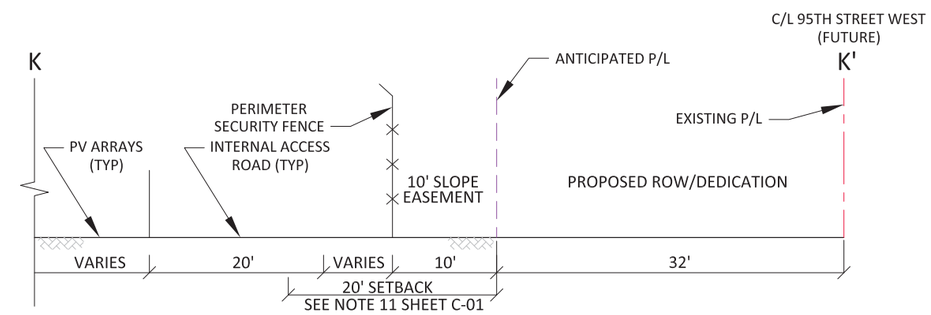


SECTION H - H'

NOT TO SCALE



SECTION K - K'

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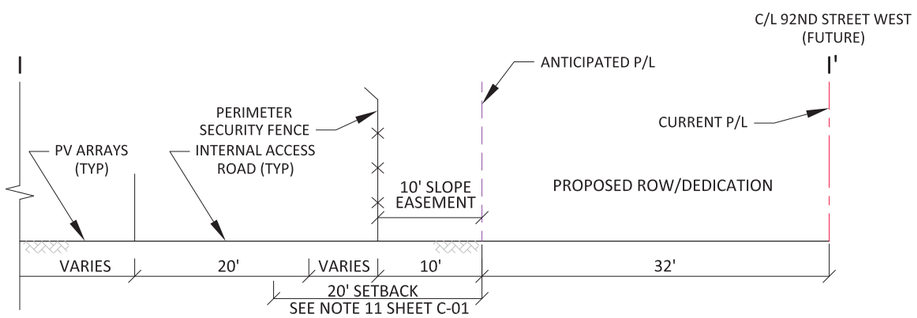
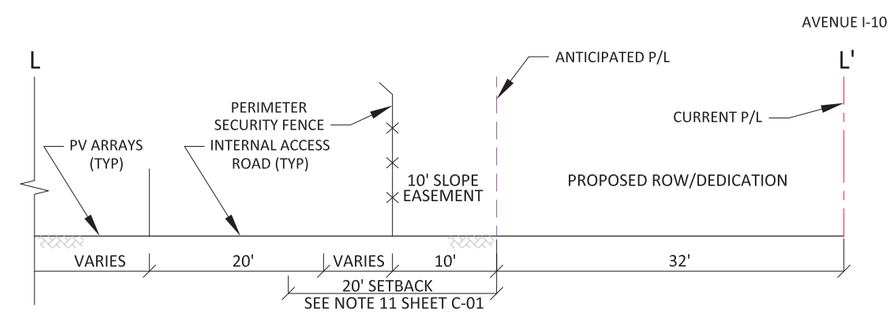


SECTION I - I'

NOT TO SCALE



SECTION L - L'

NOT TO SCALE

R2011-00807 (RCUP201100076) C-13

REGISTERED PROFESSIONAL ENGINEER
JULIE ANN GEZAKEY
No.C54556
CIVIL
STATE OF CALIFORNIA

EXHIBIT PREPARER:

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IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System

APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks

Project Address:
90th St. W & W Ave. J
Los Angeles County, CA

SCH # 2012061068

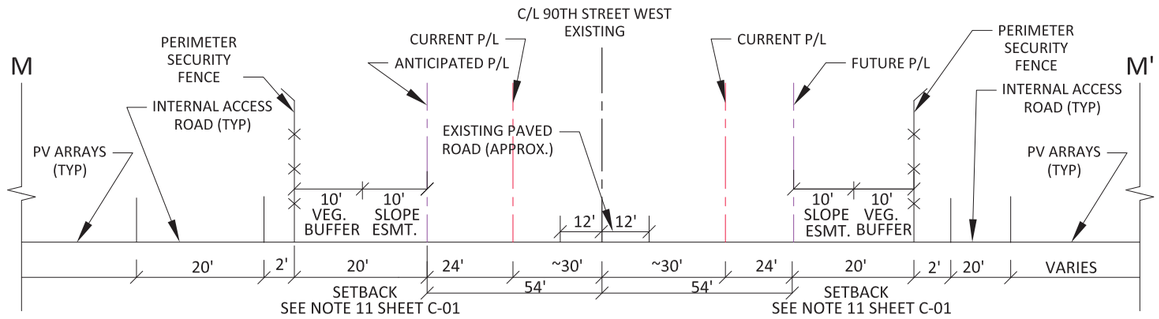
DRAWING: SECTION SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 4
ANTELOPE SOLAR
GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main



SECTION M - M'

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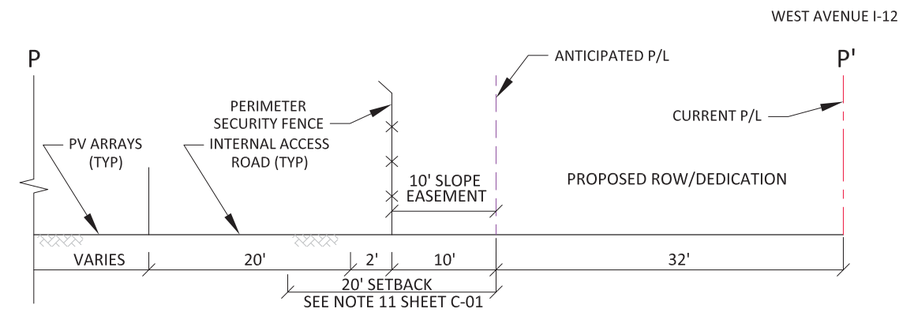

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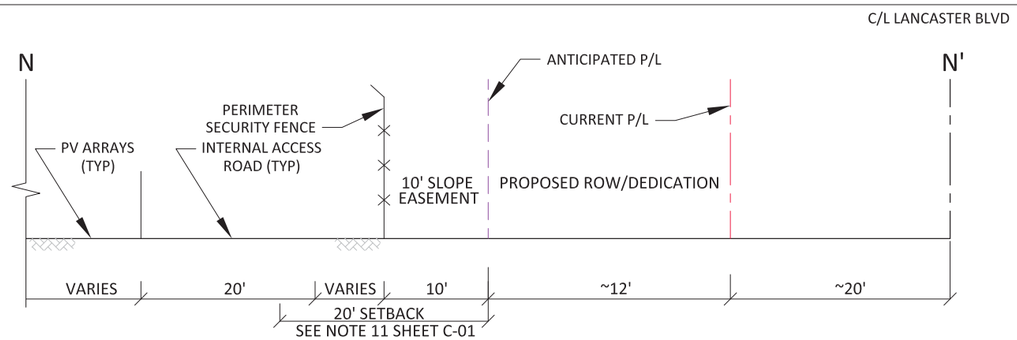
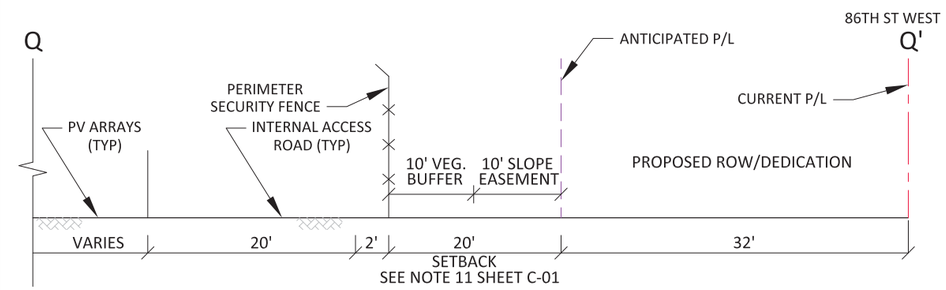


SECTION N -N'

NOT TO SCALE



SECTION Q - Q'

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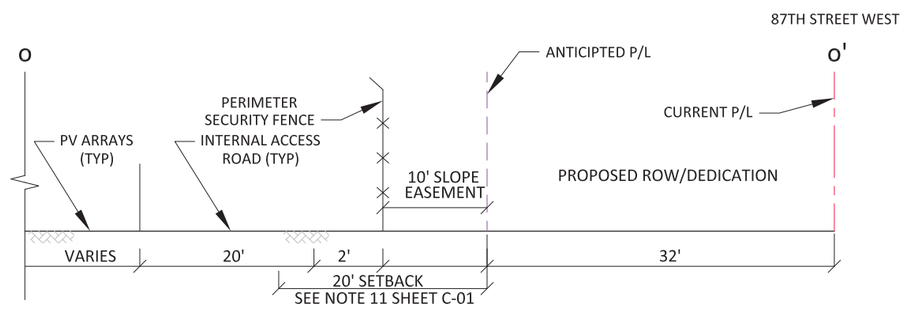

SECTION O - O'

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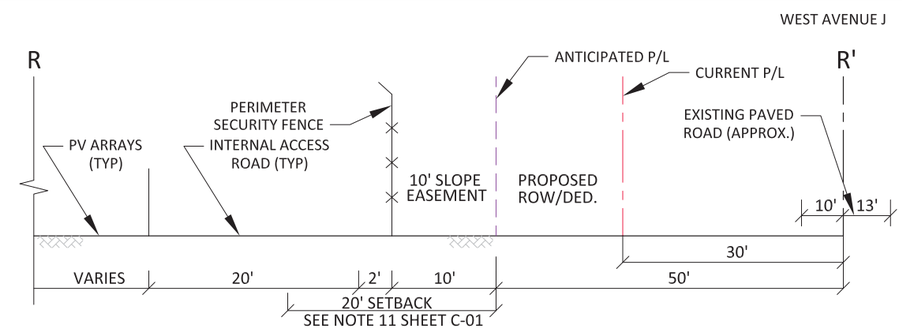

SECTION R - R'

NOT TO SCALE

R2011-00807 (RCUP201100076) C-14

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELCARD No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

52MW AC Solar Photovoltaic Generation System
APNs 3218-002-018, 023
3203-002-015, 017
3218-001-002, 003, 004
3203-002-011, 012, 013, 014
3219-019-011

Project Name:
Project 4 Antelope Solar Greenworks
Project Address:
90th St. W & W Ave. J
Los Angeles County, CA
SCH # 2012061068

DRAWING: SECTION SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 4
ANTELOPE SOLAR GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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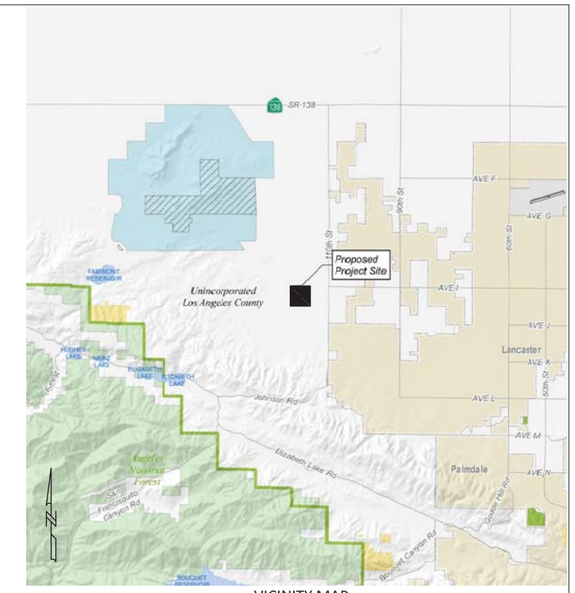
LOCATION MAP
NOT TO SCALE

PROJECT 5
SILVER SUN GREENWORKS
LOS ANGELES COUNTY, CALIFORNIA



VICINITY MAP
NOT TO SCALE

DRAWING INDEX

DRAWING NO.	TITLE
T-01	TITLE SHEET
G-01	TOPOGRAPHIC MAP
G-02	TOPOGRAPHIC MAP
C-01	SITE PLAN
C-02	GRADING PLAN
C-03	ON-SITE DRAINAGE MAP
C-04	ON-SITE DRAINAGE MAP
C-05	ON-SITE DRAINAGE MAP
C-06	DETAIL SHEET
C-07	SECTION SHEET
C-08	GEN-TIE ROUTE OPTIONS

SURVEY INFORMATION:

TOPOGRAPHIC MAP AND 1' CONTOURING PREPARED BY ALL VALLEY SURVEYING.
BENCHMARK AND BASIS OF BEARINGS SHOWN ON TOPOGRAPHIC MAPS, DRAWINGS G-01 & G-02.

SURVEYOR:

LARRY E. JERNIGAN, PLS #5924
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA 93534
(661) 942-3639

R2011-00801 (RCUP201100072) T-01

REGISTERED PROFESSIONAL ENGINEER
JULIE ANN DELANEY
No.C54558
CIVIL
STATE OF CALIFORNIA

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System
APNs: 3267-003-001, 3267-003-002 & 3267-003-003
SCH # 2012061068

Project Name:
Project 5 Silver Sun Greenworks
Project Address:
120TH ST W & W AVE I
Lancaster,
Los Angeles County, CA

DRAWING: TITLE SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 5
SILVER SUN GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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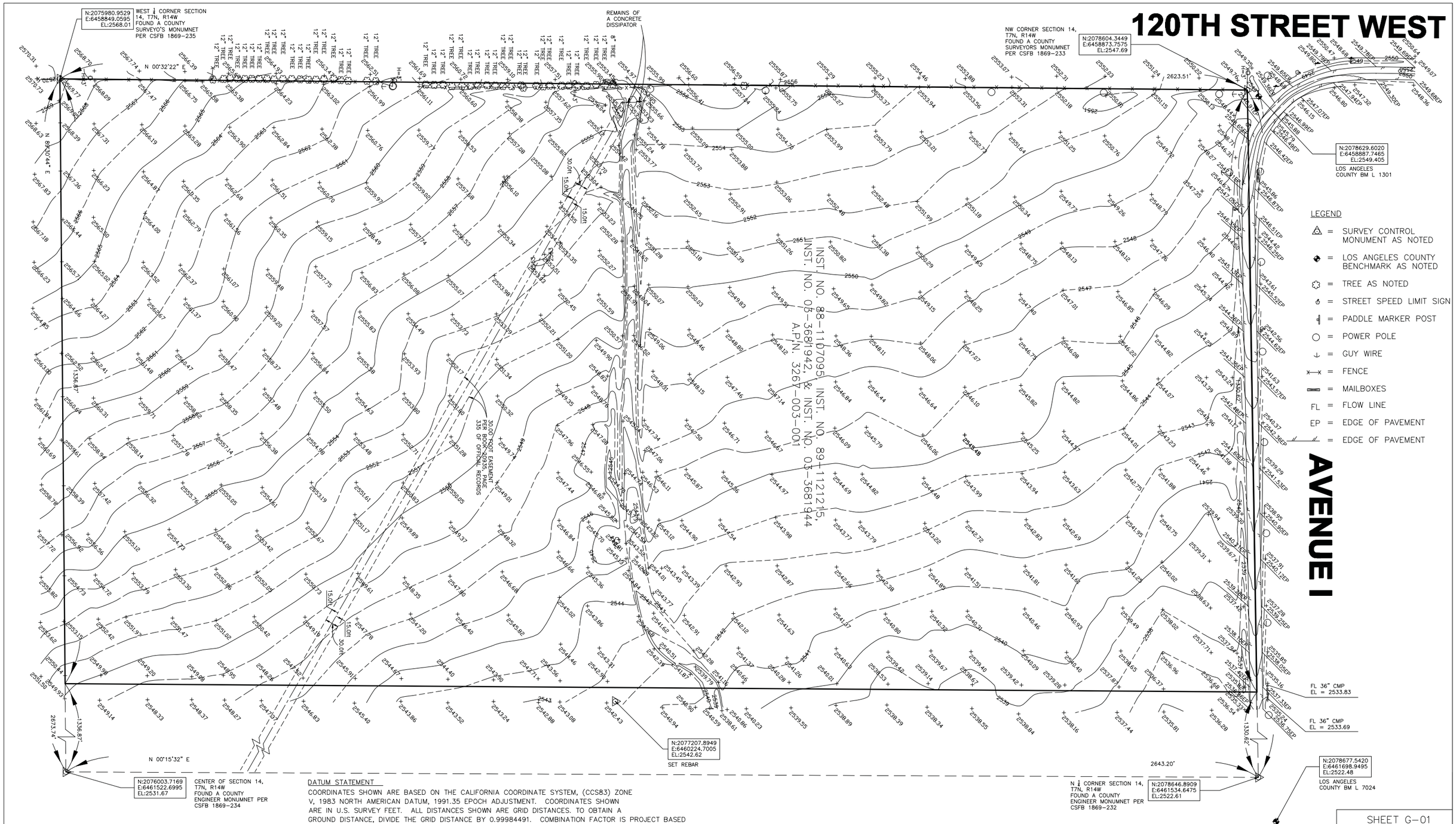


DATUM STATEMENT

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, (CCS83) ZONE V, 1983 NORTH AMERICAN DATUM, 1991.35 EPOCH ADJUSTMENT. COORDINATES SHOWN ARE IN U.S. SURVEY FEET. ALL DISTANCES SHOWN ARE GRID DISTANCES. TO OBTAIN A GROUND DISTANCE, DIVIDE THE GRID DISTANCE BY 0.99984491. COMBINATION FACTOR IS PROJECT BASED

SHEET G-01

BASIS OF BEARING	BENCH MARK
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE V, NAD 83, EPOCH 1991.35, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS), EW7110 AND EW7125, BEING NORTH 00°10'12" EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE NATIONAL GEODETIC SURVEY.	LOS ANGELES COUNTY BENCHMARK L 1301, LANCASTER 2004 ADJUSTMENT, NAVD 1988, ELEVATION = 2549.405 FEET CSBM MON UP 75MM(3IN) 7.6M(25FT) N/O C/L PROD AVE I & 17M(55.8FT) E/O CL PROD 120TH ST W 15M(49.2FT) SE/O PP #3002085E MKD (BM102-27 1957 RE 5869) BUTTON GONE

SCALE HORIZ: 1" = 100'

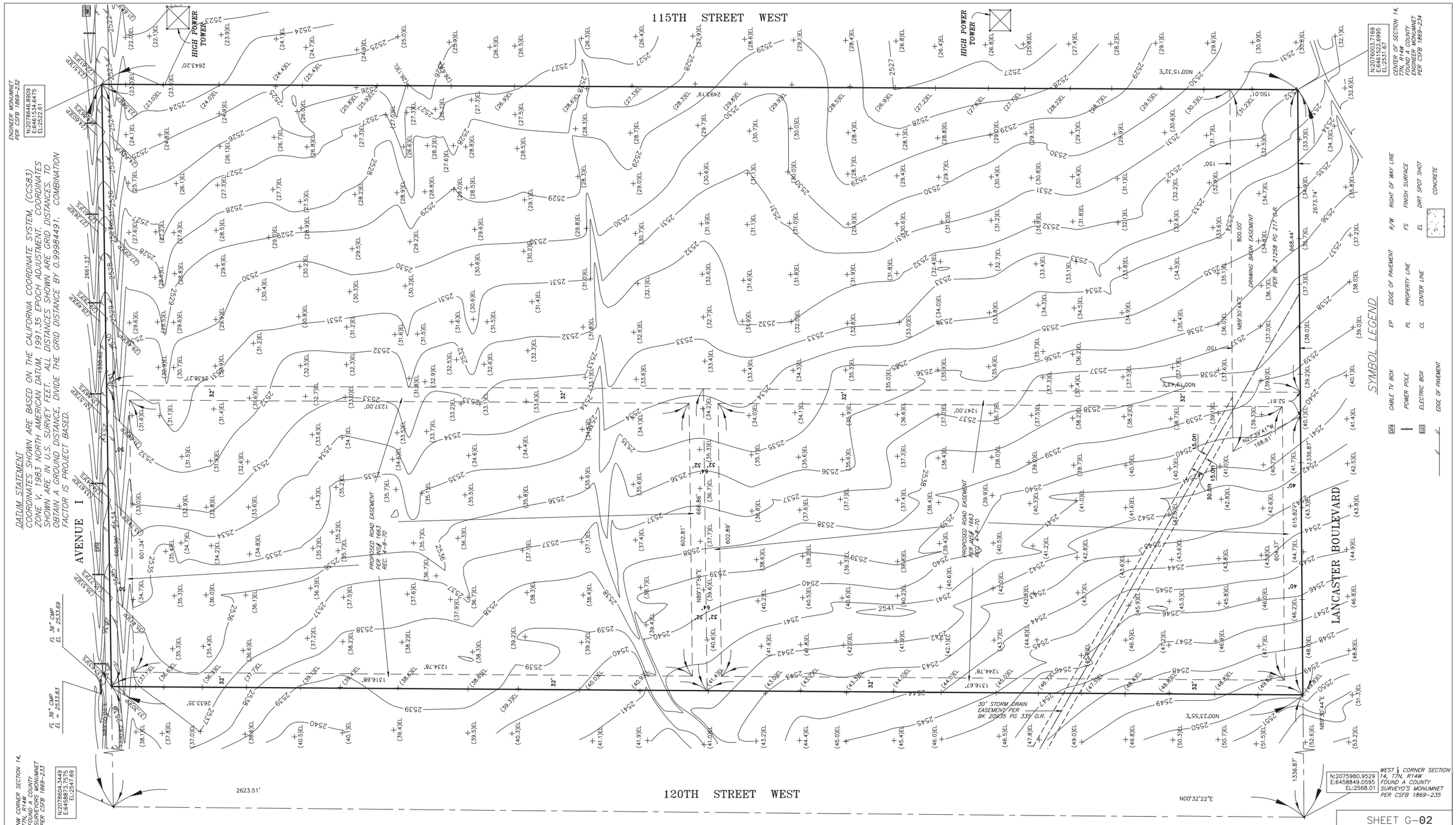
PROFESSIONAL LAND SURVEYOR LARRY E JERNIGAN No. 5924 EXP 12-31-12 STATE OF CALIFORNIA

ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA. 93534
(661) 942-3639

NO.	REVISION	BY	APPR.	DATE
1				
2				
3				

TOPOGRAPHIC MAP
AVENUE I & 120TH STREET WEST
ANTELOPE VALLEY
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

DATE OF SURVEY	COUNTY PLAN CHECK NUMBER
1/20/12	R2011-00801(RCUP2011-00072)



SHEET G-02

BASIS OF BEARING	BENCH MARK
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE V, NAD 83, EPOCH 1991.35, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS), EW7110 AND EW7125, BEING NORTH 00°10'12" EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE NATIONAL GEODETIC SURVEY.	LOS ANGELES COUNTY BENCHMARK L 1301, LANCASTER 2004 ADJUSTMENT, NAVD 1988, ELEVATION = 2549.405 FEET CSBM MON UP 75MM(3IN) 7.6M(25FT) N/O C/L PROD AVE I & 17M(55.8FT) E/O CL PROD 120TH ST W 15M(49.2FT) SE/O PP #3002085E MKD (BM102-27 1957 RE 5869) BUTTON GONE

SCALE
HORIZ: 1"= 100'

PROFESSIONAL LAND SURVEYOR
LARRY E JERNIGAN
No. 5924
EXP 12-31-12
STATE OF CALIFORNIA

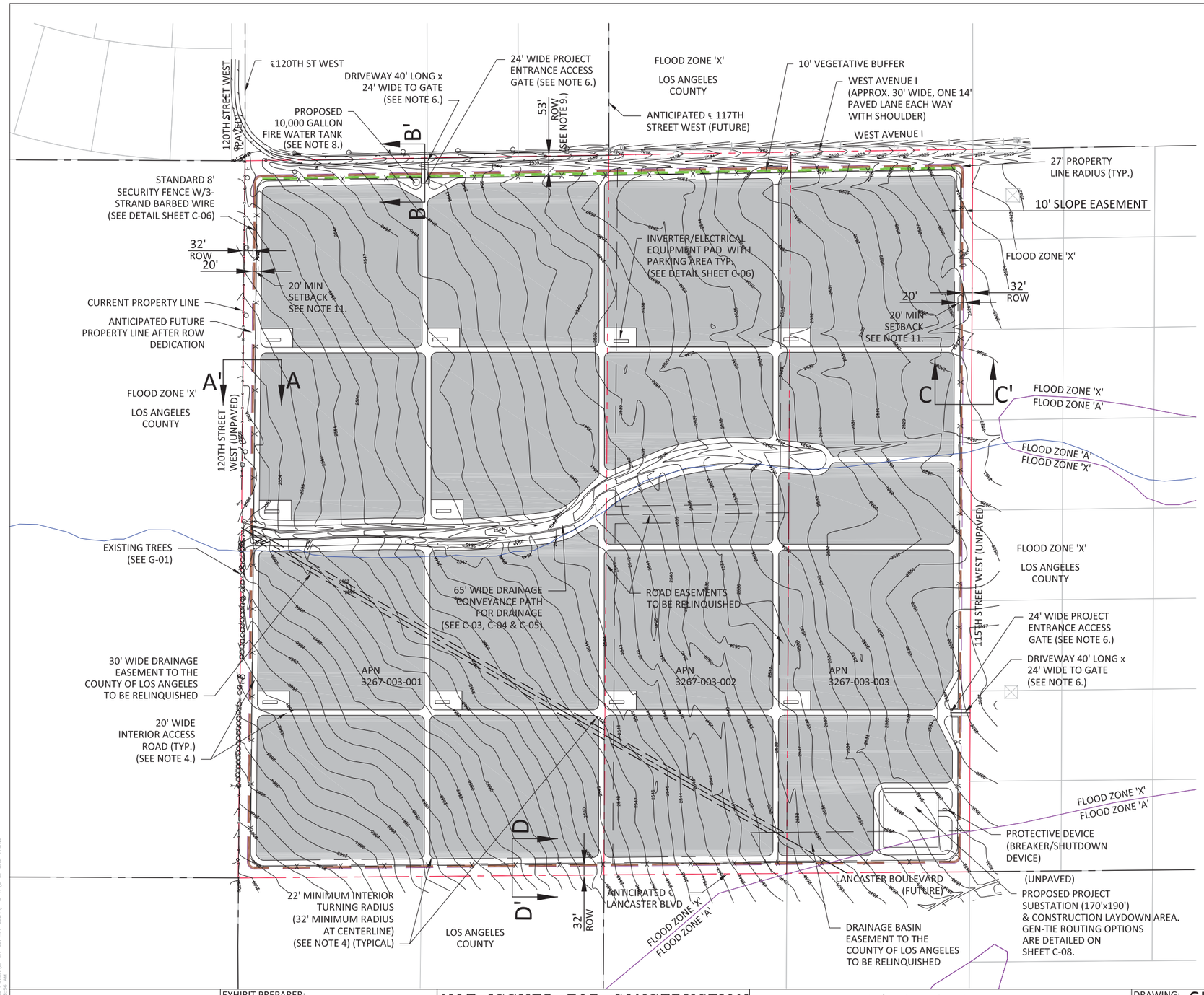
THIS MAP WAS PREPARED BY ME OR UNDER MY SUPERVISION SEPTEMBER, 2012.
LARRY E. JERNIGAN, PLS 5924

ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA. 93534
(661) 942-3639 JN: AV1246

NO.	REVISION	BY	APPR.	DATE
1				
2				
3				

TOPOGRAPHIC MAP
SILVER SUN EXPANSION
ANTELOPE VALLEY
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

DATE OF SURVEY	COUNTY PLAN CHECK NUMBER
9/2/12	R2011-00801(RCUP2011-00072)



PROJECT SITE:

PROJECT SITE IS 160 ACRES (NET)

NOTES:

1. 'ZONE X' AND 'ZONE A' AS SHOWN ON PANEL 0150F OF FLOOD INSURANCE RATE MAP NO. 06037C0400F. ZONE "X" DESIGNATED AS, "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN". ZONE "A" DESIGNATED AS, "NO BASE FLOOD ELEVATIONS DETERMINED".

2. FIRE DEPARTMENT ACCESS DEVICE AND EMERGENCY CONTACT PLACARD LOCATED AT ENTRANCE GATE.

3. MOBILE SANITATION FACILITY, AS DEFINED BY THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH, CAN BE LOCATED AT ALL PARKING LOCATIONS AND WILL BE LOCATED AT THE NEAREST LOCATION TO CONSTRUCTION AND OPERATIONAL WORKERS ACTIVITY. THE FACILITIES WILL BE KEPT TO LOS ANGELES COUNTY CODE, TITLE 11 - HEALTH & SAFETY, AND CAL-OSHA SANITATION STANDARDS IN SECTION 3360, TITLE 8, CALIFORNIA CODE OF REGULATIONS. MOBILE SANITATION FACILITIES WILL BE MADE AVAILABLE DURING CONSTRUCTION AND AS REQUIRED BY OSHA DURING OPERATIONS AND MAINTENANCE. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-06.

4. INTERIOR ACCESS ROADS WILL BE 20' WIDE, COMPACTED TO 90%, WITH 32 FOOT TURNING RADIUS AT CENTER LINE. THE INNER RADIUS WILL BE 22' AND THE OUTER RADIUS WILL BE 42'. INTERIOR ACCESS ROADS WILL BE PROVIDED TO INVERTER/ELECTRICAL EQUIPMENT PADS AND AROUND THE PERIMETER OF THE PROJECT. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-06.

5. 10 FOOT WIDE SLOPE EASEMENT WILL BE PROVIDED AROUND PERIMETER.

6. DRIVEWAY ACCESS GATES TO BE SET 40 FEET BACK FROM EDGE OF PROPERTY. DRIVEWAY WILL BE 24 FEET WIDE.

7. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND SUBJECT TO VERIFICATION DURING DETAILED DESIGN.

8. TANK CONNECTIONS PER LOS ANGELES COUNTY FIRE DEPARTMENT.

9. ANTICIPATED ROW SETBACK/DEDICATION FOR FUTURE ROAD DEVELOPMENT.

10. CONTOURS SHOWN ON SITE PLAN, C-01, ARE BASED ON SURVEY BY ALL VALLEY SURVEYING.

11. A 20' MINIMUM SETBACK FROM PROPERTY LINE (AFTER DEDICATIONS) TO ARRAYS OR EQUIPMENT TO BE MAINTAINED ON SITE. PROJECT FENCE, FIRE ROADS, EASEMENTS, AND VEGETATION ARE OK WITHIN THE SETBACK.

BENCHMARK:

BM L1462 NAVD 1988, 2004 LANCASTER ADJUSTMENT, ELEV.=2336.348'

RDBM TAG IN CTR CONC HDWL 6.4M(21FT) N/O C/L AVE D & 101M(331FT) E/O C/L PROP 35TH ST W

LEGEND:

	TREE AS NOTED
	POWER POLE
TYP.	TYPICAL
MIN	MINIMUM
ROW	RIGHT OF WAY
℄	CENTERLINE
x x	FENCE LINE
	OVERHEAD LINE
	UNDERGROUND LINE
	PROPERTY LINE (AFTER DEDICATIONS)
	PROPERTY LINE (CURRENT)
	PARCEL LINE
2470	CONTOUR LINE
	EASEMENT (SEE SHEETS G-01 AND G-02)
	BLUELINE STREAM (FROM USGS)
	FLOOD ZONE BOUNDARY DELINEATION
	SOLAR ARRAY FIELD
	10' WIDE VEGETATIVE BUFFER
	10' WIDE SLOPE EASEMENT

200 0 200 400

SCALE IN FEET

1'=200'

WHEN PRINTED TO SCALE ON 22"x34" SHEET

R2011-00801 (RCUP201100072) C-01

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.

17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System

APNs: 3267-003-001, 3267-003-002 & 3267-003-003

SCH # 2012061068

Project Name:
Project 5 Silver Sun Greenworks

Project Address:
120TH ST W & W AVE I
Lancaster,
Los Angeles County, CA

DRAWING: SITE PLAN

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 5
SILVER SUN GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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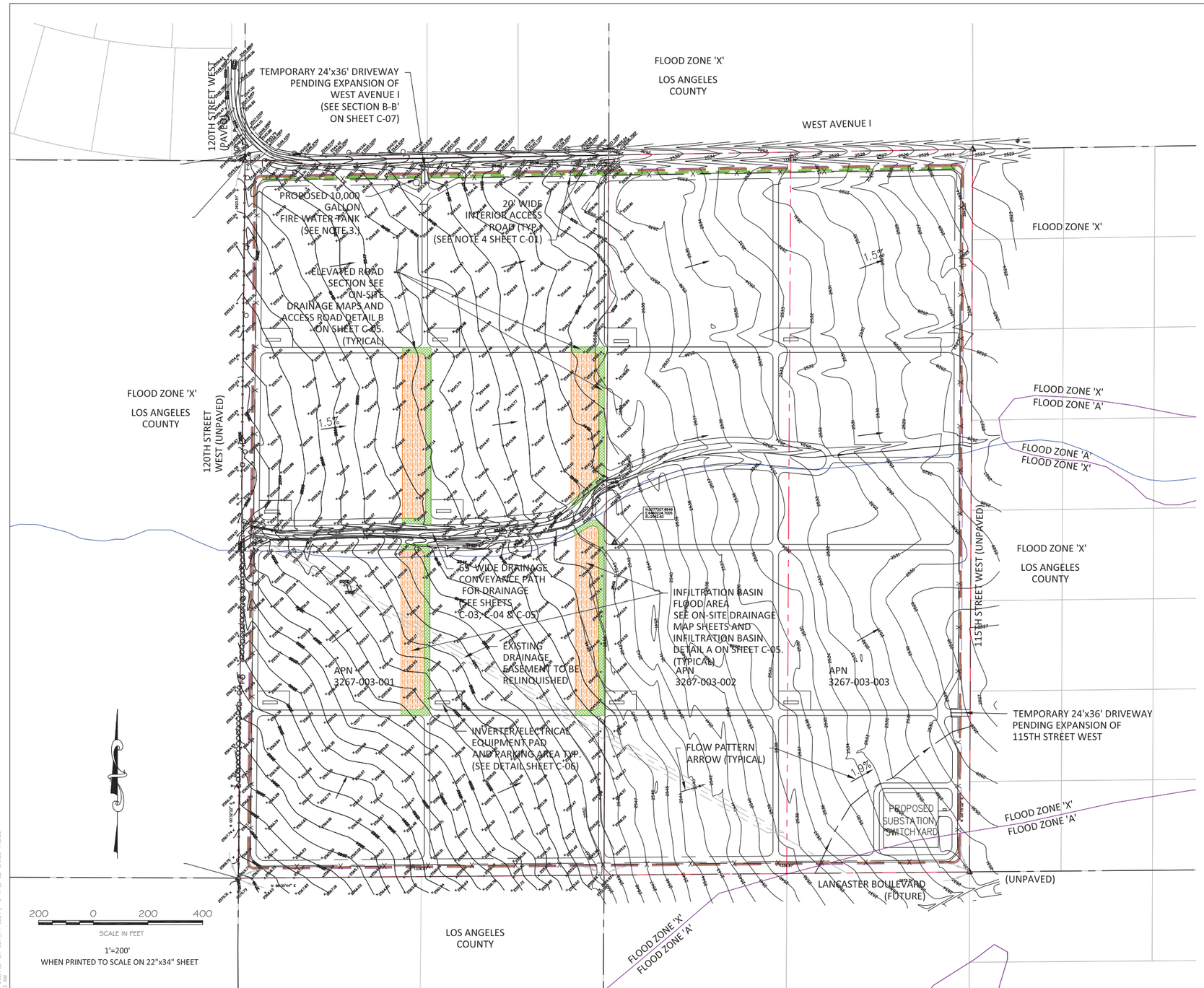

NOTES:

1. DRAINAGE ACROSS SITE IS CURRENTLY FROM THE SOUTHWEST TO THE NORTHEAST, AS SHOWN ON THE SURFACE CONTOURS. TOPOGRAPHY/CONTOURS ARE BASED ON SURVEY DATA PROVIDED BY ALL VALLEY SURVEYING.

2. OVERALL EXISTING GRADING AND DRAINAGE PATTERN TO REMAIN UNCHANGED DURING AND AFTER CONSTRUCTION WITH THE EXCEPTION OF AREAS USED FOR DRAINAGE FEATURES. ELEVATED ROAD SECTIONS WILL BE USED TO CREATE INFILTRATION BASINS. FLOOD AREAS AND FLOW PATTERN ARROWS ARE SHOWN ON THIS SHEET AND SHEETS C-03 AND C-04.

3. EQUIPMENT PADS WILL BE GRADED AS REQUIRED PER MANUFACTURER SPECIFICATIONS.

LEGEND:

=	SURVEY CONTROL MONUMENT AS NOTED	TYP.	TYPICAL
=	LOS ANGELES COUNTY BENCHMARK AS NOTED	MIN	MINIMUM
=	TREE AS NOTED	ROW	RIGHT OF WAY
=	STREET SPEED LIMIT SIGN	℄	CENTERLINE
=	PADDLE MARKER POST	x x	FENCE LINE
=	POWER POLE		UNDERGROUND LINE
=	GUY WIRE		PROPERTY LINE (AFTER DEDICATIONS)
x x	FENCE		PROPERTY LINE (CURRENT)
=	MAILBOXES		PARCEL LINE
FL =	FLOW LINE	2470	CONTOUR LINE
EP =	EDGE OF PAVEMENT		EASEMENT (SEE SHEETS G-01 AND G-02)
=	EDGE OF PAVEMENT		BLUELINE STREAM (FROM USGS)
			FLOOD ZONE BOUNDARY DELINEATION
			INFILTRATION BASIN FLOOD AREA
			ELEVATED ROAD SECTION
			10' WIDE VEGETATIVE BUFFER
			10' WIDE SLOPE EASEMENT

EARTHWORK QUANTITIES:

OVEREXCAVATION	=	32,900 CUBIC YARDS
CUT	=	3,100 CUBIC YARDS
FILL	=	3,100 CUBIC YARDS

CUT & FILL QUANTITIES INCLUDE INVERTER PADS, SUBSTATION, BASINS, AND ELEVATED ROAD BED FOR DRAINAGE FEATURES.

OVEREXCAVATION QUANTITY INCLUDES ACCESSIBLE FIRE ROAD.

SURVEY INFORMATION:

TOPOGRAPHIC MAP AND 1' CONTOURING PREPARED BY ALL VALLEY SURVEYING, JANUARY 20, 2012 & SEPTEMBER 2, 2012.

SURVEYOR:

LARRY E. JERNIGAN, PLS #5924
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA 93534
(661) 942-3639

BASIS OF BEARINGS:

SEE TOPOGRAPHIC MAP SHEETS G-01 & G-02.

BENCHMARK:

SEE TOPOGRAPHIC MAP SHEETS G-01 & G-02.

NOTE:

EXISTING SURVEYED ELEVATIONS ARE SHOWN IN FEET. SURVEY ON EAST SIDE IN '( )' ADD 2500'.

R2011-00801 (RCUP201100072) C-02

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System

APNs: 3267-003-001, 3267-003-002 & 3267-003-003

SCH # 2012061068

Project Name:
Project 5 Silver Sun Greenworks

Project Address:
120TH ST W & W AVE I
Lancaster,
Los Angeles County, CA

DRAWING: GRADING PLAN

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 5
SILVER SUN GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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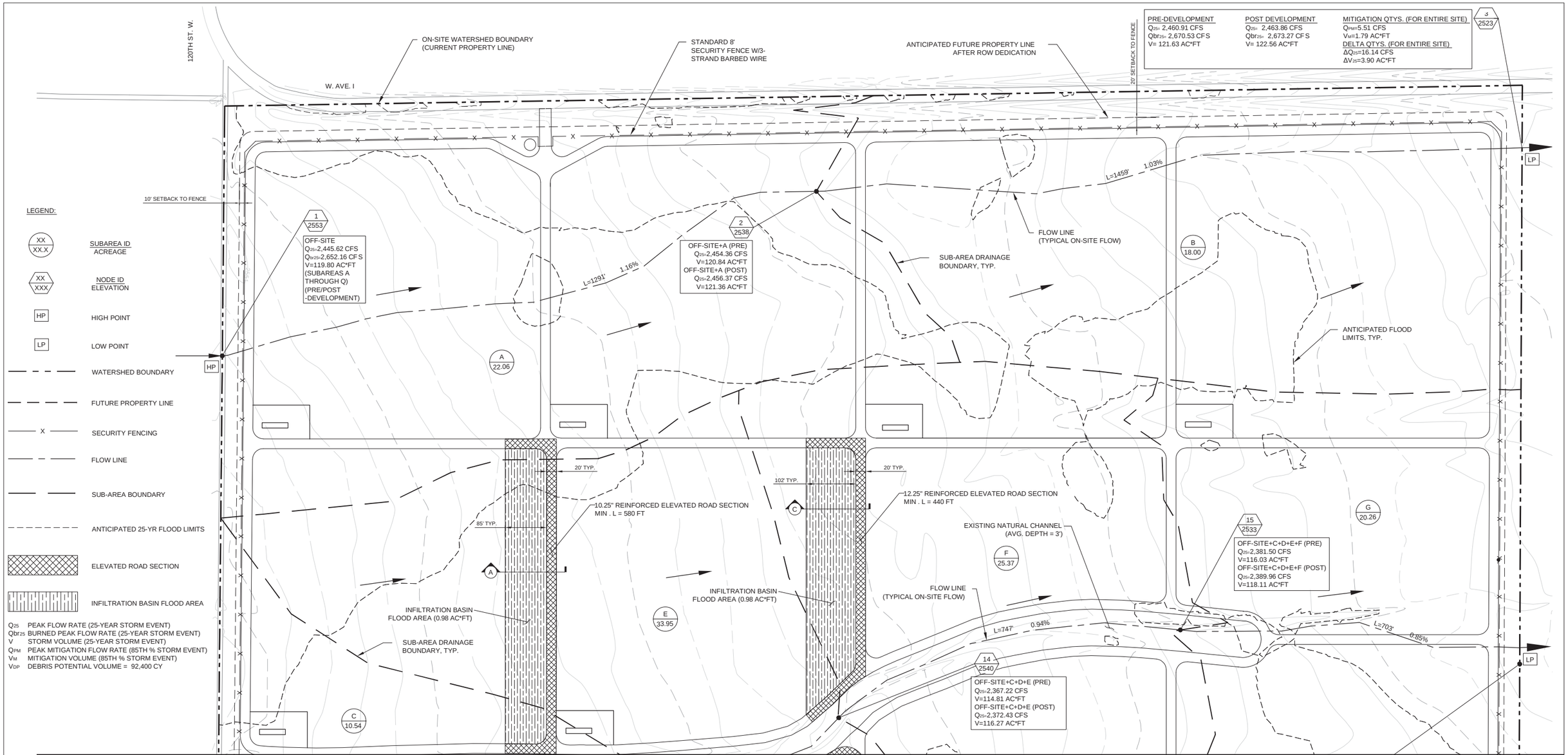

MATCHLINE: SEE SHEET C-04

DRAINAGE CONCEPT NOTES:

1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
2) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3) APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTES).
4) AN OFFSITE DRAINAGE COVENANT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
5) A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
6) A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
7) BASIN SIZES ARE DEPENDENT ON THE VERIFICATION OF PERCOLATION RATES AND ARE SUBJECT TO CHANGE.
8) WITHIN A FEMA ZONE A AND ZONE X, UNSHADED.
9) WITHIN A COUNTY ADOPTED FLOODWAY.
10) ALL BASINS ARE PRIVATELY MAINTAINED.
11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATES (Q_{50}) INCREASED BY MAXIMUM OF 0.4%, AND THE VOLUMES (V_{50}) INCREASED BY A MAXIMUM OF 2.0%. SIMILAR INCREASES ARE ANTICIPATED FOR THE DEPTHS AND VELOCITIES DUE TO THE SMALL INCREASE IN PEAK FLOW RATES (<1%). THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. THE POST-DEVELOPMENT DOES NOT INCLUDE THE MITIGATION EFFECTS OF THE BASINS. SEE IMPACT ANALYSIS CALCULATIONS.

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____RCE NO:_____DATE_____
CHECKED BY:_____DATE_____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00801 (RCUP201100072) C-03

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA

JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System

APNs: 3267-003-001, 3267-003-002 & 3267-003-003

SCH # 2012061068

Project Name:
Project 5 Silver Sun Greenworks

Project Address:
120TH ST W & W AVE I
Lancaster,
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100072 ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 5
SILVER SUN GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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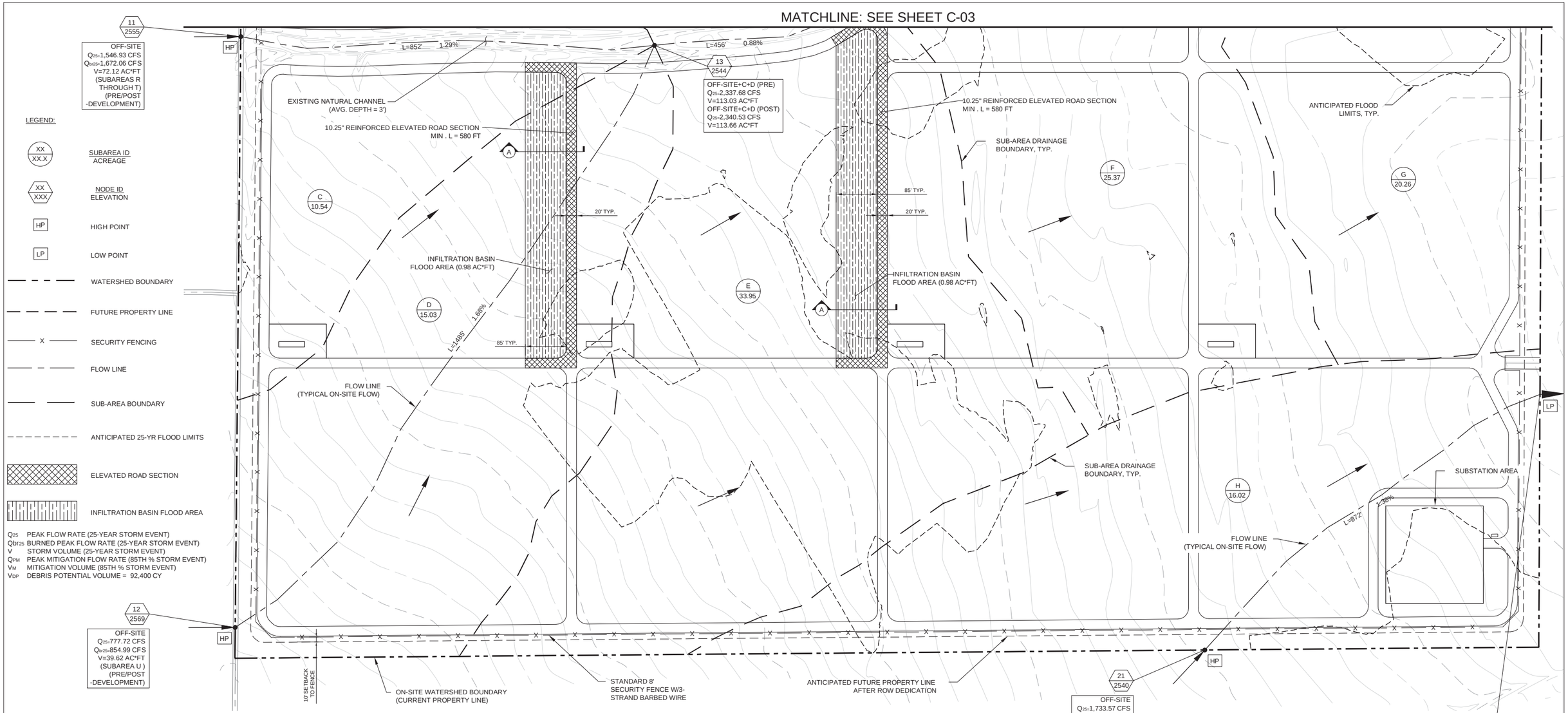

LEGEND:

- XX / XX.X — SUBAREA ID / ACREAGE
- XX / XXX — NODE ID / ELEVATION
- HP — HIGH POINT
- LP — LOW POINT
- WATERSHED BOUNDARY
- FUTURE PROPERTY LINE
- X — SECURITY FENCING
- FLOW LINE
- SUB-AREA BOUNDARY
- ANTICIPATED 25-YR FLOOD LIMITS
- ELEVATED ROAD SECTION
- INFILTRATION BASIN FLOOD AREA

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Qbr_{25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = 92,400 CY

DRAINAGE CONCEPT NOTES:

1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
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10) ALL BASINS ARE PRIVATELY MAINTAINED.
11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATES (Q_{50}) INCREASED BY MAXIMUM OF 0.4%, AND THE VOLUMES (V_{50}) INCREASED BY A MAXIMUM OF 2.0%. SIMILAR INCREASES ARE ANTICIPATED FOR THE DEPTHS AND VELOCITIES DUE TO THE SMALL INCREASE IN PEAK FLOW RATES (<1%). THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. THE POST-DEVELOPMENT DOES NOT INCLUDE THE MITIGATION EFFECTS OF THE BASINS. SEE IMPACT ANALYSIS CALCULATIONS.

PRE-DEVELOPMENT	POST DEVELOPMENT	MITIGATION QTYS. (FOR ENTIRE SITE)
Q_{25}= 1,743.21 CFS	Q_{25}= 1,745.34 CFS	Q_{PM}=5.51 CFS
Qbr_{25}= 1,939.77 CFS	Qbr_{25}= 1,941.77 CFS	V_M=1.79 AC*FT
V= 93.45 AC*FT	V= 93.85 AC*FT	DELTA QTYS. (FOR ENTIRE SITE)
		ΔQ_{25}=16.14 CFS
		ΔV_{25}=3.90 AC*FT

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____RCE NO:_____DATE_____
CHECKED BY: _____DATE _____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

0 50 100 200
SCALE: 100

R2011-00801 (RCUP201100072) C-04

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA

JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System
APNs: 3267-003-001, 3267-003-002 & 3267-003-003
SCH # 2012061068

Project Name:
Project 5 Silver Sun Greenworks
Project Address:
120TH ST W & W AVE I
Lancaster,
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID
FOR CUP 201100072
ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 5
SILVER SUN
GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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PLOT/UPDATE: Dec 6, 2013 1:41:23 PM

HYDROLOGY RESULTS: (BASED ON LA FLOOD CONTROL TC CALCULATOR)

ON-SITE HYDROLOGY (PRE-DEVELOPMENT)																
Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre-ft)
Project 5	A	22.06	0.01	25	120	1291	0.0116	4.2	29	1.10	0.35	0.36	8.74	0.34	10.47	1.04
Project 5	B	18.00	0.01	25	120	1459	0.0103	4.0	30	1.04	0.34	0.35	6.55	0.34	7.90	0.79
Project 5	C	10.54	0.01	25	120	852	0.0129	4.4	19	1.40	0.43	0.43	6.35	0.34	7.33	0.54
Project 5	D	15.03	0.01	25	120	1485	0.0168	4.4	28	1.17	0.37	0.38	6.68	0.34	7.92	0.75
Project 5	E	33.95	0.01	25	120	456	0.0088	4.4	12	1.74	0.50	0.50	29.54	0.34	33.15	1.78
Project 5	F	25.37	0.01	25	120	747	0.0094	4.2	19	1.34	0.42	0.42	14.28	0.34	16.57	1.22
Project 5	G	20.26	0.01	25	120	706	0.0085	4.2	19	1.34	0.42	0.42	11.40	0.34	13.23	0.98
Project 5	H	16.02	0.01	25	120	872	0.0138	4.4	19	1.40	0.43	0.43	9.64	0.34	11.14	0.82
Project 5	A	22.06	0.01	50	120	1291	0.0116	4.8	24	1.37	0.43	0.43	13.00	0.34	15.01	1.25
Project 5	B	18.00	0.01	50	120	1459	0.0103	4.6	29	1.20	0.38	0.39	8.42	0.34	9.93	0.95
Project 5	C	10.54	0.01	50	120	852	0.0129	5.0	15	1.78	0.51	0.51	9.57	0.34	10.70	0.64
Project 5	D	15.03	0.01	50	120	1485	0.0168	5.0	22	1.49	0.46	0.46	10.30	0.34	11.74	0.91
Project 5	E	33.95	0.01	50	120	456	0.0088	5.0	11	2.06	0.55	0.55	38.47	0.34	42.43	2.08
Project 5	F	25.37	0.01	50	120	747	0.0094	4.8	16	1.66	0.49	0.49	20.64	0.34	23.24	1.46
Project 5	G	20.26	0.01	50	120	706	0.0085	4.8	15	1.71	0.50	0.50	17.32	0.34	19.43	1.17
Project 5	H	16.02	0.01	50	120	872	0.0138	5.0	15	1.78	0.51	0.51	14.54	0.34	16.26	0.98

ON-SITE HYDROLOGY (POST-DEVELOPMENT)																
Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre-ft)
Project 5	A	22.06	0.1	25	120	1291	0.0116	4.2	26	1.16	0.37	0.42	10.75	0.34	12.40	1.56
Project 5	B	18.00	0.1	25	120	1459	0.0103	4.0	30	1.04	0.34	0.40	7.49	0.34	8.71	1.20
Project 5	C	10.54	0.1	25	120	852	0.0129	4.4	17	1.47	0.45	0.50	7.75	0.34	8.65	0.80
Project 5	D	15.03	0.1	25	120	1485	0.0168	4.4	25	1.23	0.39	0.44	8.13	0.34	9.30	1.12
Project 5	E	33.95	0.1	25	120	456	0.0088	4.4	12	1.74	0.50	0.54	31.90	0.34	35.15	2.61
Project 5	F	25.37	0.1	25	120	747	0.0094	4.2	17	1.41	0.44	0.49	17.53	0.34	19.63	1.84
Project 5	G	20.26	0.1	25	120	706	0.0085	4.2	17	1.41	0.44	0.49	14.00	0.34	15.68	1.47
Project 5	H	16.02	0.1	25	120	872	0.0138	4.4	17	1.47	0.45	0.50	11.77	0.34	13.14	1.22
Project 5	A	22.06	0.1	50	120	1291	0.0116	4.8	21	1.46	0.45	0.50	16.10	0.34	17.97	1.85
Project 5	B	18.00	0.1	50	120	1459	0.0103	4.6	26	1.26	0.40	0.45	10.21	0.34	11.62	1.41
Project 5	C	10.54	0.1	50	120	852	0.0129	5.0	14	1.84	0.52	0.56	10.86	0.34	11.89	0.94
Project 5	D	15.03	0.1	50	120	1485	0.0168	5.0	21	1.52	0.46	0.50	11.42	0.34	12.76	1.32
Project 5	E	33.95	0.1	50	120	456	0.0088	5.0	10	2.15	0.56	0.59	43.07	0.34	46.78	3.02
Project 5	F	25.37	0.1	50	120	747	0.0094	4.8	15	1.71	0.50	0.54	23.43	0.34	25.81	2.14
Project 5	G	20.26	0.1	50	120	706	0.0085	4.8	14	1.77	0.51	0.55	19.72	0.34	21.66	1.72
Project 5	H	16.02	0.1	50	120	872	0.0138	5.0	15	1.78	0.51	0.55	15.68	0.34	17.23	1.42
Project 5	A	22.06	0.1	MIT.	120	1291	0.0116	0.75	30	0.19	0.10	0.18	0.75	0.34	0.98	0.24
Project 5	B	18.00	0.1	MIT.	120	1459	0.0103	0.75	30	0.19	0.10	0.18	0.62	0.34	0.80	0.20
Project 5	C	10.54	0.1	MIT.	120	852	0.0129	0.75	30	0.19	0.10	0.18	0.36	0.34	0.47	0.12
Project 5	D	15.03	0.1	MIT.	120	1485	0.0168	0.75	30	0.19	0.10	0.18	0.51	0.34	0.67	0.17
Project 5	E	33.95	0.1	MIT.	120	456	0.0088	0.75	30	0.19	0.10	0.18	1.16	0.34	1.51	0.38
Project 5	F	25.37	0.1	MIT.	120	747	0.0094	0.75	30	0.19	0.10	0.18	0.87	0.34	1.13	0.28
Project 5	G	20.26	0.1	MIT.	120	706	0.0085	0.75	30	0.19	0.10	0.18	0.69	0.34	0.90	0.22
Project 5	H	16.02	0.1	MIT.	120	872	0.0138	0.75	30	0.19	0.10	0.18	0.55	0.34	0.71	0.18

NOTE: FOR INFILTRATION BASIN MITIGATION VOLUME, SUM MIT. FREQUENCY VOLUMES UNDER POST-DEVELOPMENT TABLE. V_{PM}=1.79 AC*FT.

DELTA QUANTITIES FOR DRAINAGE AREA A:
ΔQ25 = 10.75 - 8.74 = 2.01 CFS
ΔV25 = 1.56 - 1.04 = 0.52 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA B:
ΔQ25 = 7.49 - 6.55 = 0.94 CFS
ΔV25 = 1.20 - 0.79 = 0.41 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA C
ΔQ25 = 7.75 - 6.35 = 1.40 CFS
ΔV25 = 0.80 - 0.54 = 0.26 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA D
ΔQ25 = 8.13 - 6.68 = 1.45 CFS
ΔV25 = 1.12 - 0.75 = 0.37 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA E
ΔQ25 = 31.90 - 29.54 = 2.36 CFS
ΔV25 = 2.61 - 1.78 = 0.83 AC*FT

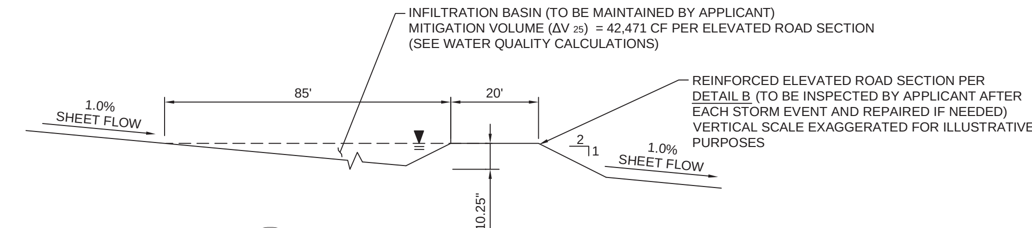
DELTA QUANTITIES FOR DRAINAGE AREA F
ΔQ25 = 17.53 - 14.28 = 3.25 CFS
ΔV25 = 1.84 - 1.22 = 0.62 AC*FT

DELTA QUANTITIES FOR DRAINAGE AREA G
ΔQ25 = 14.00 - 11.40 = 2.60 CFS
ΔV25 = 1.47 - 0.98 = 0.49 AC*FT

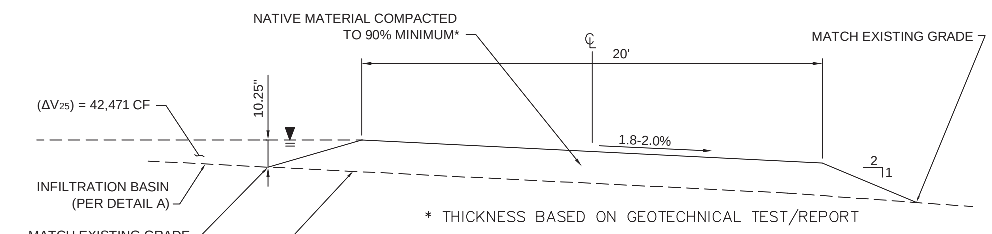
DELTA QUANTITIES FOR DRAINAGE AREA H
ΔQ25 = 11.77 - 9.64 = 2.13 CFS
ΔV25 = 1.22 - 0.82 = 0.40 AC*FT

TOTAL DELTA QUANTITIES
ΔQ25 = 16.14 CFS
ΔV25 = 3.90 AC*FT

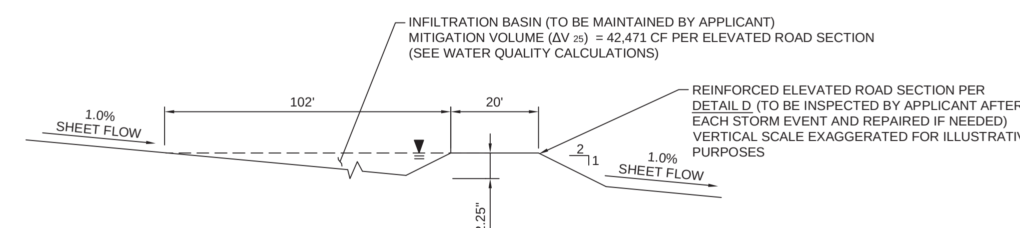
NOTE: DUE TO THE LID Δ QUANTITIES ABOVE BEING GREATER THAN THE MITIGATION QUANTITIES (Q_{PM} AND V_{PM}) THEY REPRESENT THE WORST CASE SCENARIO BETWEEN THE PRE-/POST DEVELOPMENT CONDITIONS AND THEREFORE SHALL BE USED FOR SIZING THE INFILTRATION BASINS.



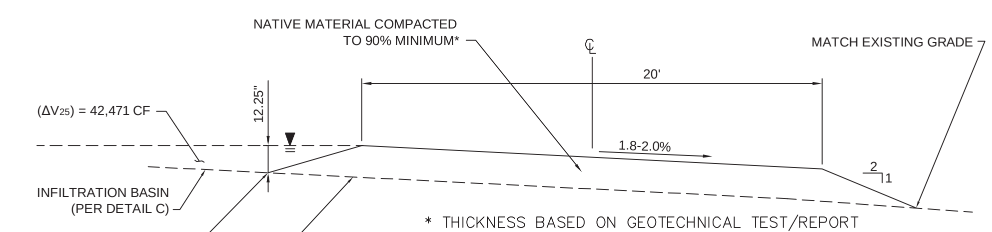
A INFILTRATION BASIN DETAIL
SCALE: NTS



B REINFORCED ACCESS ROAD DETAIL (TYP.)
SCALE: NTS



C INFILTRATION BASIN DETAIL
SCALE: NTS



D REINFORCED ACCESS ROAD DETAIL (TYP.)
SCALE: NTS

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_______________RCE NO:_______________DATE_______________
CHECKED BY:_______________DATE_______________
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00801 (RCUP201100072) C-05

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

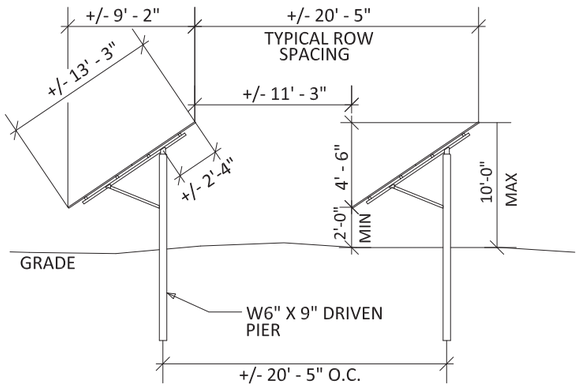
NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary
20MW AC Solar Photovoltaic Generation System
APNs: 3267-003-001, 3267-003-002 & 3267-003-003
SCH # 2012061068
Project Name: Project 5 Silver Sun Greenworks
Project Address: 120TH ST W & W AVE I Lancaster, Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100072 ON-SITE DRAINAGE MAP
APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

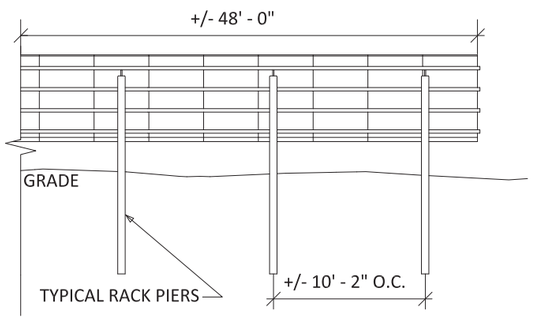
SILVERADO power
PROJECT 5
SILVER SUN GREENWORKS
LOS ANGELES COUNTY, CA
2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\04546\135-04546-12001\SUPPORTDOCS\CALCS\HYDROLOGY\11\FINAL DESIGN\ONSITE HYDROLOGY C-05.DWG PLOT/UPDATE: Dec 3, 2013 4:9:47 PM



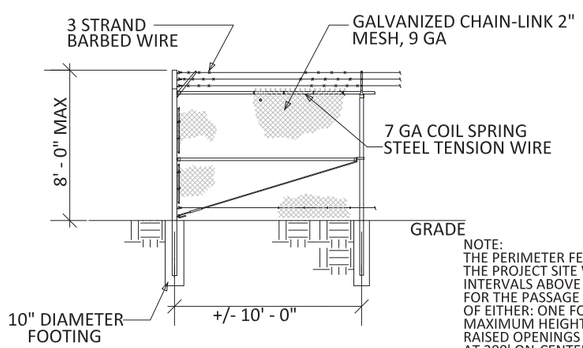
TYPICAL SOLAR ARRAY RACK DETAIL AND END ELEVATION

NOT TO SCALE



SOLAR ARRAY RACK DETAIL ELEVATION

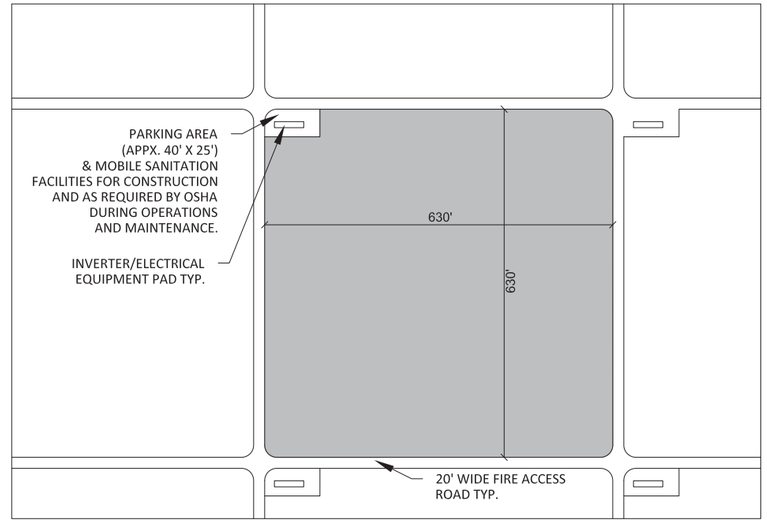
NOT TO SCALE



NOTE:
THE PERIMETER FENCING SURROUNDING THE PROJECT SITE WILL BE RAISED AT REGULAR INTERVALS ABOVE GROUND LEVEL TO ALLOW FOR THE PASSAGE OF WILDLIFE TO THE LESSER OF EITHER: ONE FOOT ABOVE GRADE OR TO THE MAXIMUM HEIGHT ALLOWED BY THE PUC. RAISED OPENINGS WILL BE 50' WIDE SPACED AT 200' ON-CENTER.

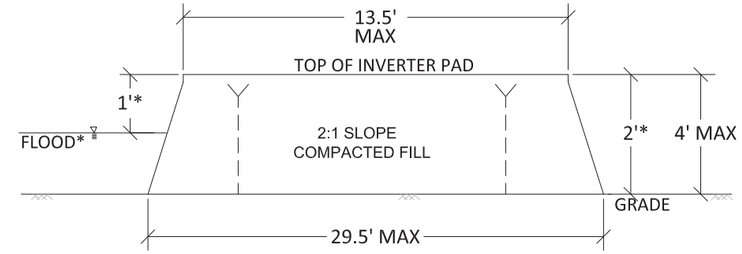
CHAIN LINK SECURITY FENCE ELEVATION

NOT TO SCALE



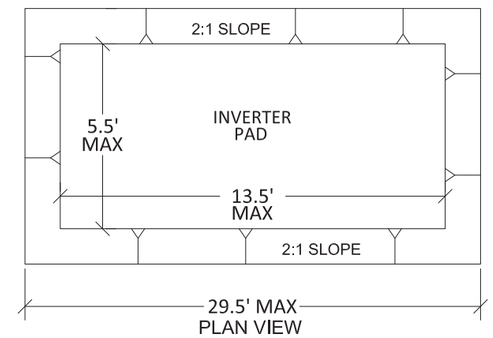
ARRAY BLOCK DETAIL (TYPICAL)

NOT TO SCALE



*TOP OF INVERTER PAD TO BE 1' MINIMUM ABOVE FLOOD WATER ELEVATION AS DETERMINED IN FINAL HYDROLOGY REPORT AND 2' ABOVE GRADE IN FEMA ZONE A.

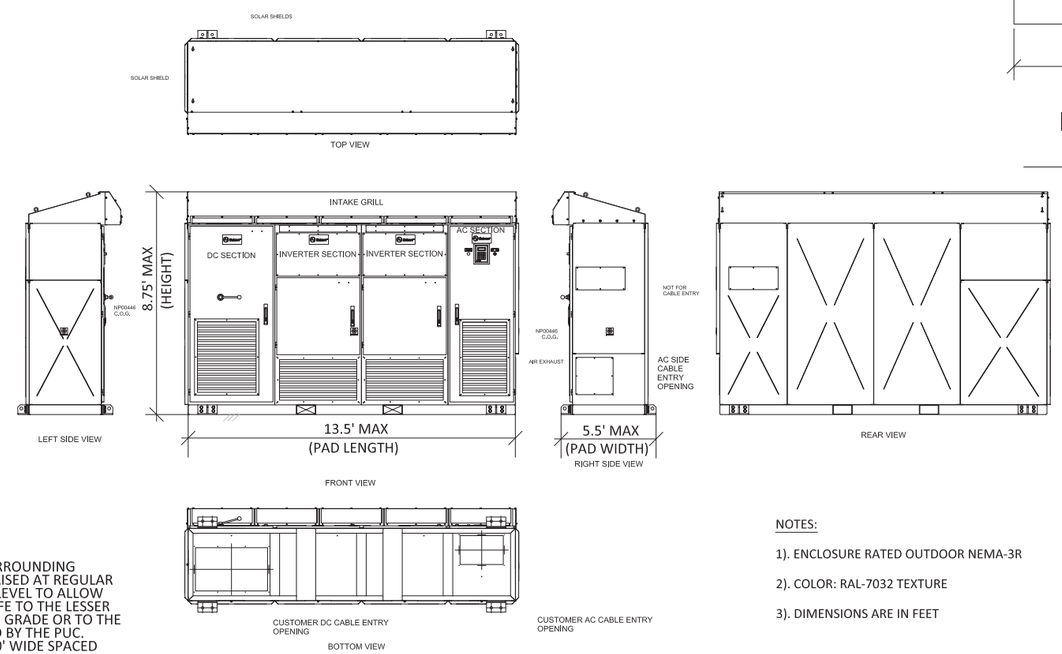
ELEVATION VIEW



PLAN VIEW

RAISED INVERTER PAD DETAILS FOR FLOOD AREAS AS NEEDED

NOT TO SCALE



NOTES:

1). ENCLOSURE RATED OUTDOOR NEMA-3R

2). COLOR: RAL-7032 TEXTURE

3). DIMENSIONS ARE IN FEET

INVERTER PAD DETAILS (TYPICAL)

NOT TO SCALE

R2011-00801 (RCUP201100072) C-06

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System

APNs: 3267-003-001, 3267-003-002 & 3267-003-003

SCH # 2012061068

Project Name:
Project 5 Silver Sun Greenworks

Project Address:
120TH ST W & W AVE I
Lancaster,
Los Angeles County, CA

DRAWING: DETAIL SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 5
SILVER SUN GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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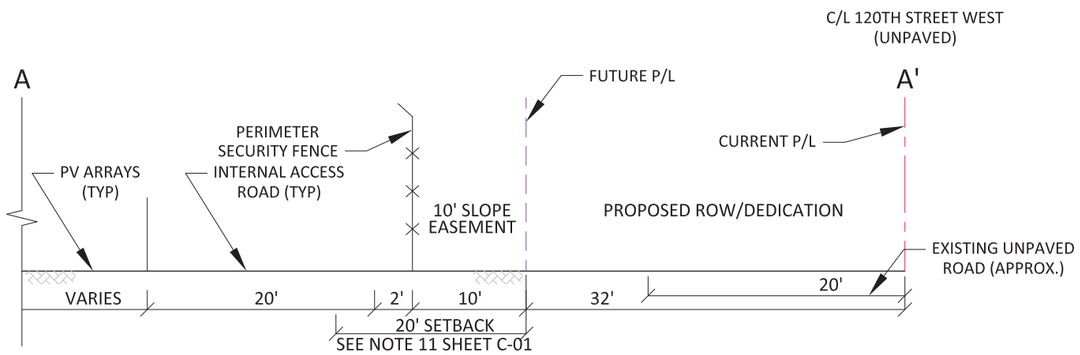
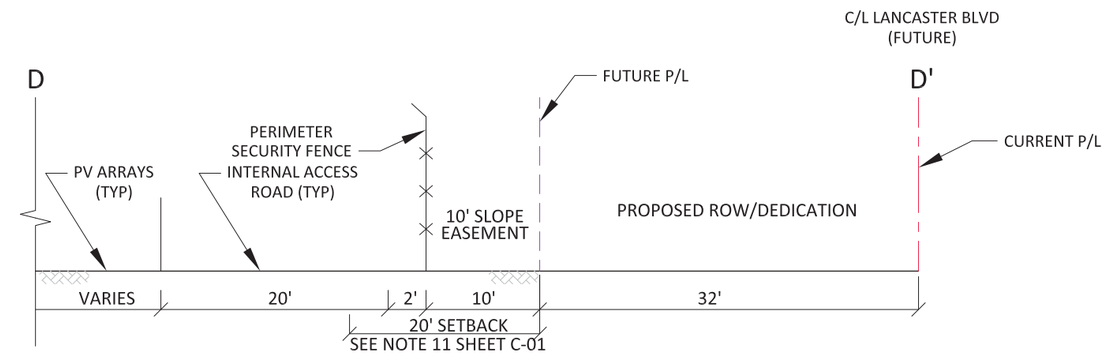


SECTION A - A'

NOT TO SCALE



SECTION D - D'

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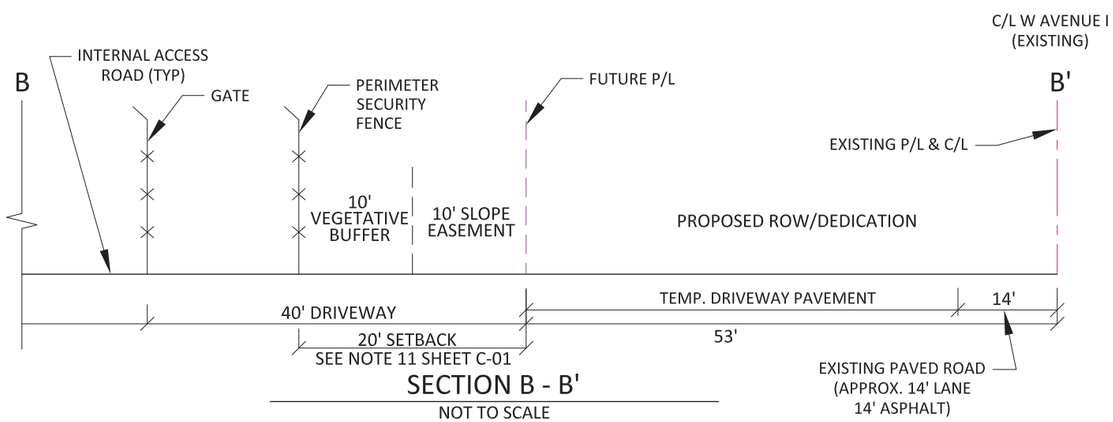
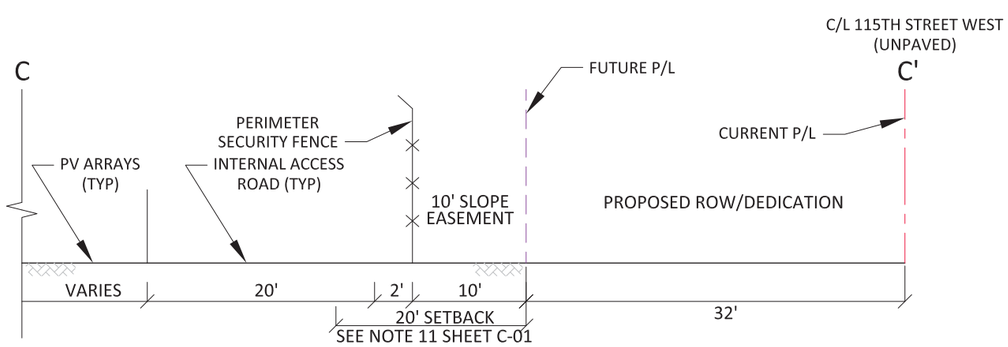


SECTION B - B'

NOT TO SCALE



SECTION C - C'

NOT TO SCALE

R2011-00801 (RCUP201100072) C-07

REGISTERED PROFESSIONAL ENGINEER
JULIE ANN DELANEY
No.C54558
CIVIL
STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.

17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System

APNs: 3267-003-001, 3267-003-002 & 3267-003-003

SCH # 2012061068

Project Name:
Project 5 Silver Sun Greenworks

Project Address:
120TH ST W & W AVE I
Lancaster,
Los Angeles County, CA

DRAWING: SECTION SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 5
SILVER SUN
GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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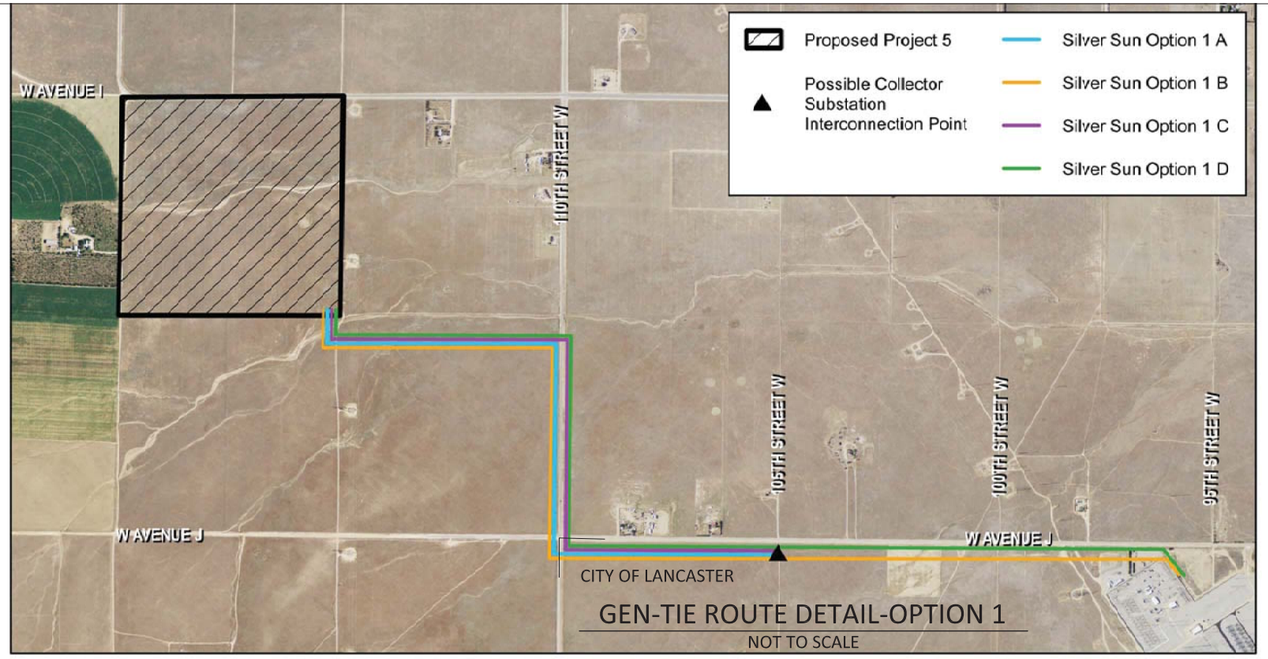
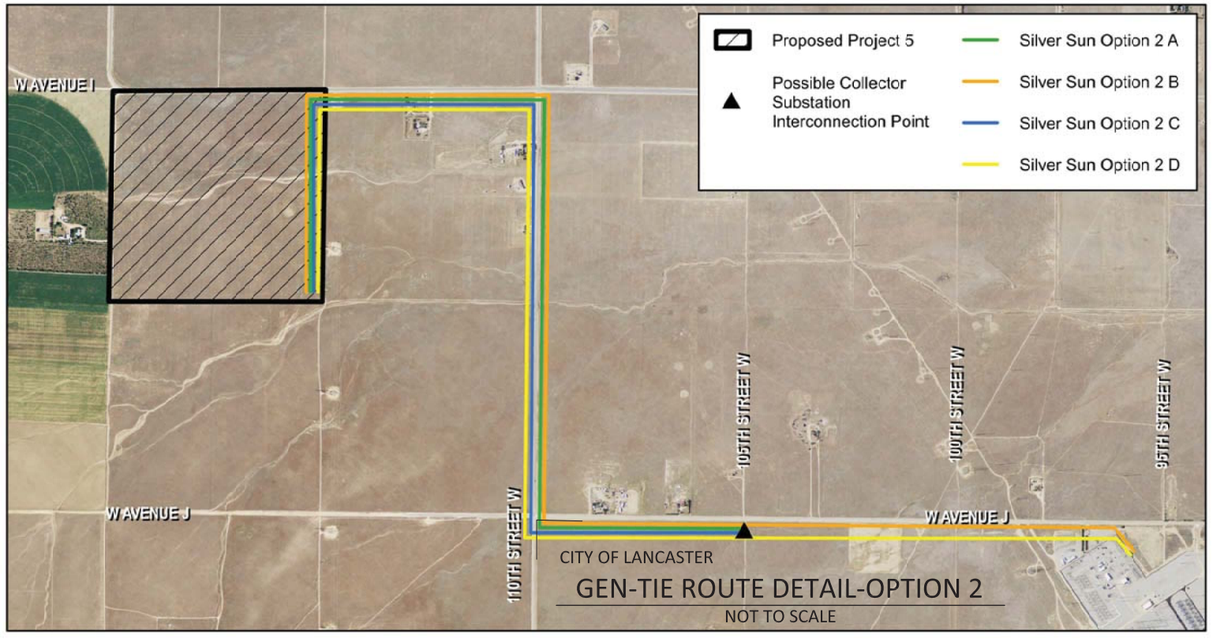


GEN-TIE ROUTE DETAIL-OPTION 1

NOT TO SCALE



GEN-TIE ROUTE DETAIL-OPTION 2

NOT TO SCALE

NOTES:

1. ALL GEN-TIE OPTIONS SHOWN ARE NEW, WITH NO TIE-INS TO EXISTING GEN-TIES.
2. GEN-TIE OPTIONS WITHIN LOS ANGELES COUNTY LIMITS/JURISDICTION WILL BE UNDERGROUND.
3. GEN-TIE OPTIONS WITHIN CITY OF LANCASTER LIMITS/JURISDICTION WILL BE UNDERGROUND OR ABOVE GROUND.

R2011-00801 (RCUP201100072) C-08

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

20MW AC Solar Photovoltaic Generation System

APNs: 3267-003-001, 3267-003-002 & 3267-003-003

SCH # 2012061068

Project Name: Project 5 Silver Sun Greenworks

Project Address: 120TH ST W & W AVE I Lancaster, Los Angeles County, CA

DRAWING: GEN-TIE ROUTE OPTIONS

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 5
SILVER SUN GREENWORKS
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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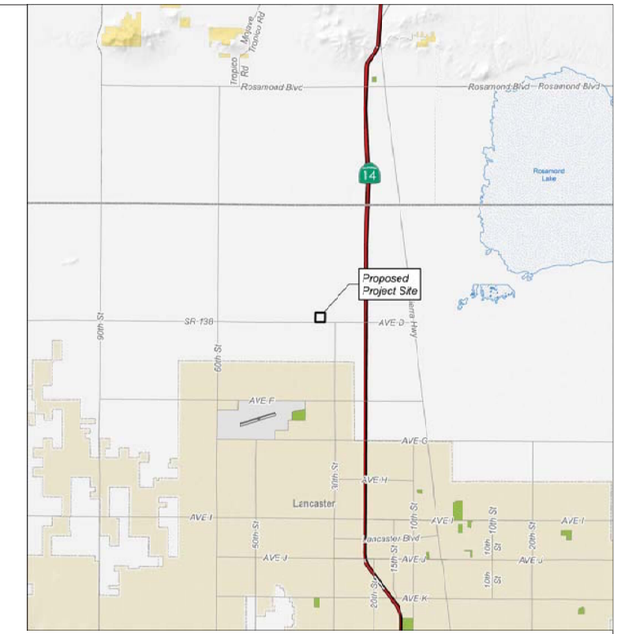
LOCATION MAP
NOT TO SCALE

PROJECT 6
LANCASTER WAD
LOS ANGELES COUNTY, CALIFORNIA



VICINITY MAP
NOT TO SCALE

DRAWING INDEX

DRAWING NO.	TITLE
T-01	TITLE SHEET
G-01	TOPOGRAPHIC MAP
C-01	SITE PLAN
C-02	GRADING PLAN
C-03	ON-SITE DRAINAGE MAP
C-04	ON-SITE DRAINAGE MAP
C-05	DETAIL SHEET
C-06	SECTION SHEET

SURVEY INFORMATION:

TOPOGRAPHIC MAP AND 1' CONTOURING PREPARED BY ALL VALLEY SURVEYING.
BENCHMARK AND BASIS OF BEARINGS SHOWN ON TOPOGRAPHIC MAP, DRAWING G-01.

SURVEYOR:

LARRY E. JERNIGAN, PLS #5924
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA 93534
(661) 942-3639

R2011-00805 (RCUP2011-00074) T-01

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELAREY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

5MW AC Solar Photovoltaic Generation System
APN:
3115-010-004
SCH # 2012061068

Project Name:
Project 6 Lancaster WAD
Project Address:
W Ave. D & 35th St. W
Lancaster,
Los Angeles County, CA

DRAWING: TITLE SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 6
LANCASTER WAD
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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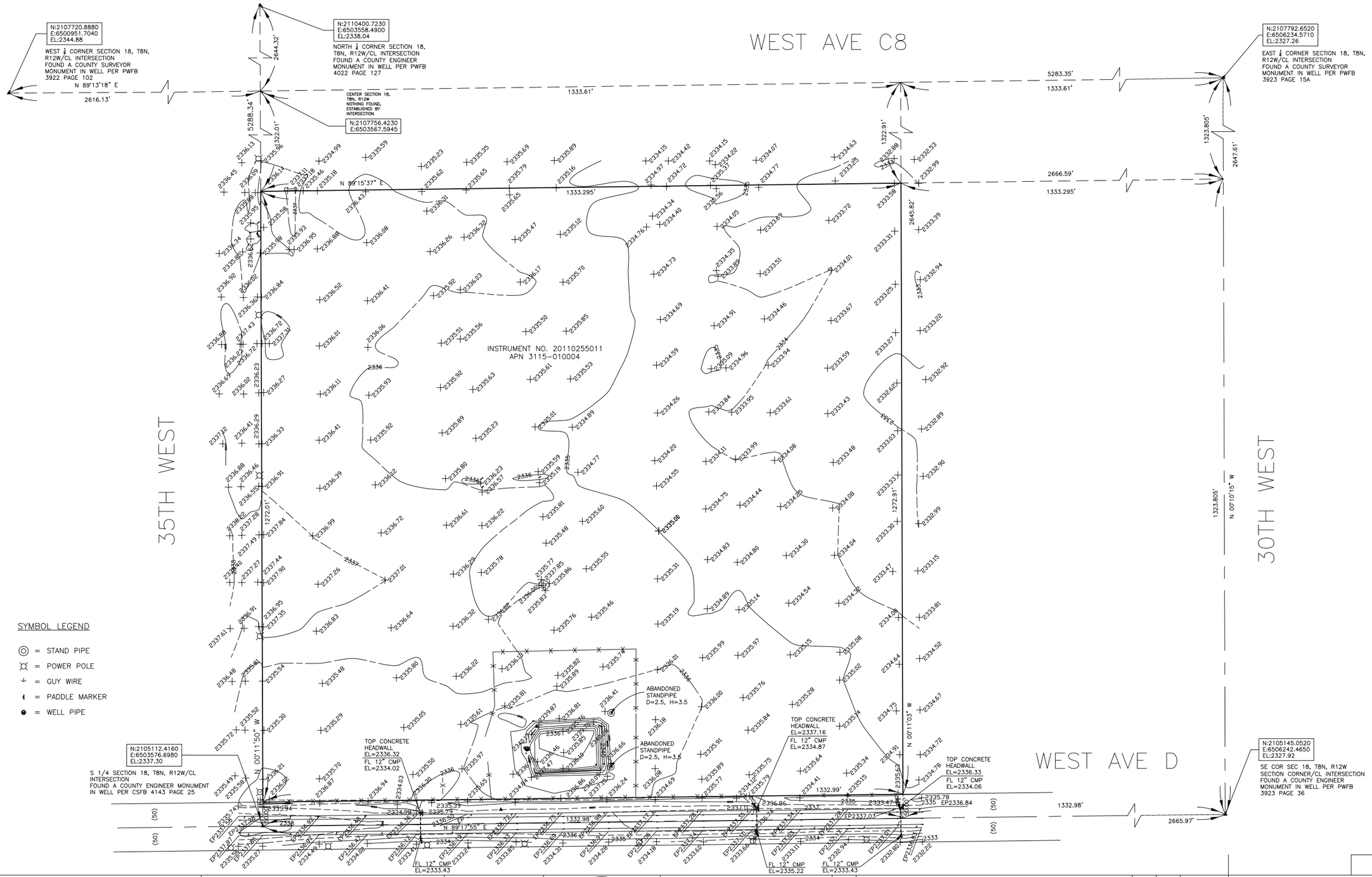


SHEET G-01

BASIS OF BEARING	BENCH MARK
DESIGNATION- OBAN PID-EW0819 STATE/COUNTY-CA/LOS ANGELES USGS QUAD-ROSAMOND 1973 SPC CA5- N=2096834.88 E=6517733.23 SPC CA5- COMBINED FACTOR 0.99981691	BM L1462 NAVD 1988, 2004 LANCASTER ADJUSTMENT, ELEV.=2336.348' RDBM TAG IN CTR CONC HDWL 6.4M(21FT) N/O C/L AVE D & 101M(331FT) E/O C/L PROP 35TH ST W

SCALE
HORIZ: 1"= 100'

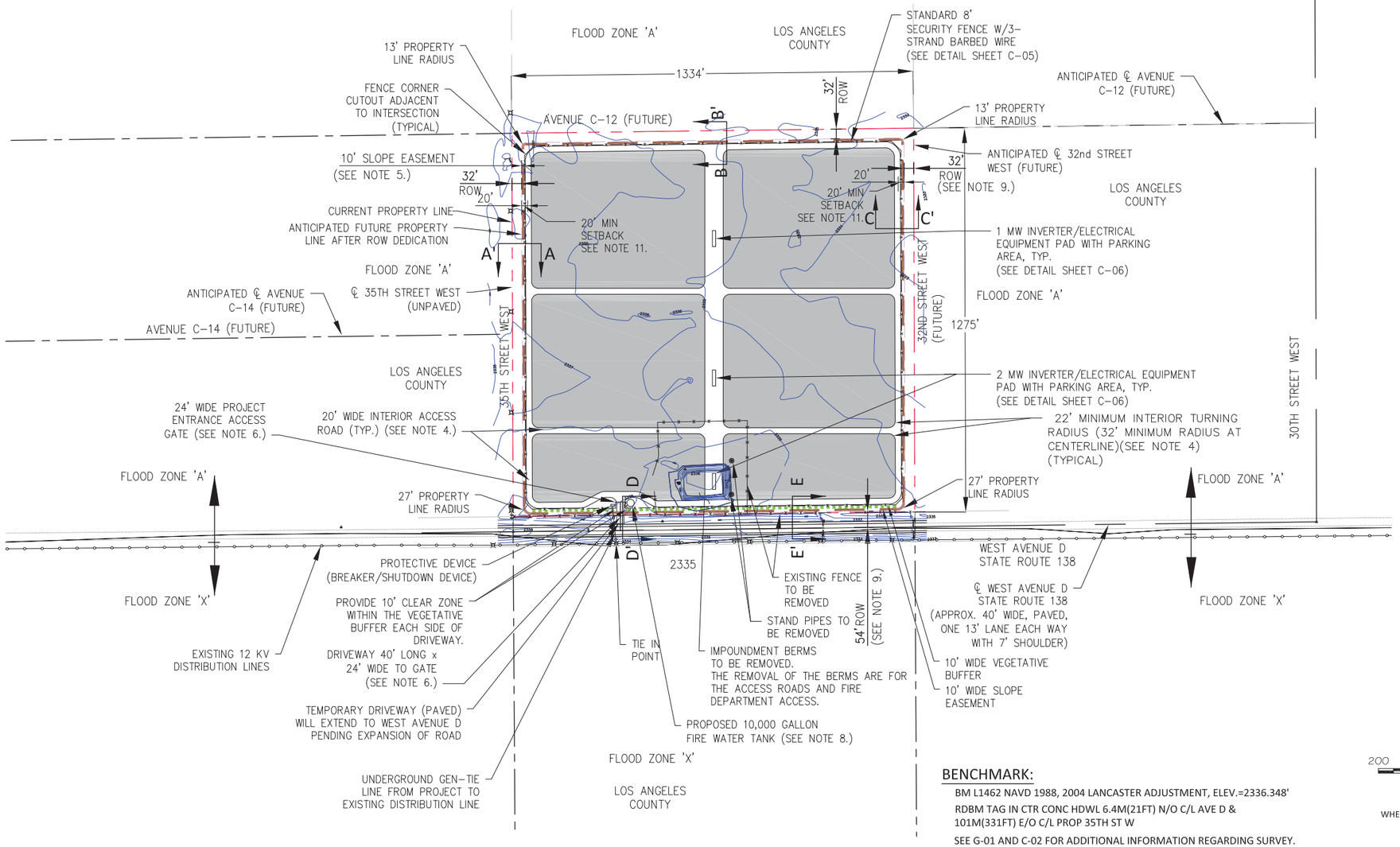
PROFESSIONAL LAND SURVEYOR
LARRY E JERNIGAN
No. 5924
EXP 12-31-12
STATE OF CALIFORNIA

ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA. 93534
(661) 942-3639

NO.	REVISION	BY	APPR.	DATE
1				
2				
3				

TOPOGRAPHIC MAP
AVENUE D & 35TH STREET WEST
ANTELOPE VALLEY
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

DATE OF SURVEY	COUNTY PLAN CHECK NUMBER
1/18/12	R2011-00805(RCUP2011-00074)



VICINITY MAP

NO SCALE

PROJECT SITE:

PROJECT SITE IS 39 ACRES (NET)

NOTES:

1. 'ZONE X' AS SHOWN ON PANEL 0150F OF FLOOD INSURANCE RATE MAP NO. 06037C0175F. ZONE "X" DESIGNATED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN. ZONE "A" DESIGNATED AS, "NO BASE FLOOD ELEVATIONS DETERMINED".

2. FIRE DEPARTMENT ACCESS DEVICE AND EMERGENCY CONTACT PLACARD LOCATED AT ALL ENTRANCE GATES.

3. MOBILE SANITATION FACILITY, AS DEFINED BY THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH, CAN BE LOCATED AT ALL PARKING LOCATIONS AND WILL BE LOCATED AT THE NEAREST LOCATION TO CONSTRUCTION AND OPERATIONAL WORKERS ACTIVITY. THE FACILITIES WILL BE KEPT TO LOS ANGELES COUNTY CODE, TITLE 11 – HEALTH & SAFETY, AND CAL-OSHA SANITATION STANDARDS IN SECTION 3360, TITLE 8, CALIFORNIA CODE OF REGULATIONS. MOBILE SANITATION FACILITIES WILL BE MADE AVAILABLE DURING CONSTRUCTION AND AS REQUIRED BY OSHA DURING OPERATIONS AND MAINTENANCE. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-05.

4. INTERIOR ACCESS ROADS WILL BE 20' WIDE, COMPACTED TO 90%, WITH 32 FOOT TURNING RADIUS AT CENTER LINE. THE INNER RADIUS WILL BE 22' AND THE OUTER RADIUS WILL BE 42'. INTERIOR ACCESS ROADS WILL BE PROVIDED TO INVERTER/ELECTRICAL EQUIPMENT PADS AND AROUND THE PERIMETER OF THE PROJECT. SEE ARRAY BLOCK DETAIL (TYPICAL) ON C-05.

5. 10 FOOT WIDE SLOPE EASEMENT WILL BE PROVIDED AROUND PERIMETER.
6. DRIVEWAY ACCESS GATES TO BE SET 40 FEET BACK FROM EDGE OF PROPERTY. DRIVEWAY WILL BE 24 FEET WIDE.

7. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND SUBJECT TO VERIFICATION DURING DETAILED DESIGN.

8. TANK CONNECTIONS PER LOS ANGELES COUNTY FIRE DEPARTMENT.

9. ANTICIPATED ROW SETBACK/DEDICATION FOR FUTURE ROAD DEVELOPMENT. REFER TO SHEET C-06 FOR SECTIONS AND ROW DETAILS.

10. CONTOURS SHOWN ON SITE PLAN, C-01, ARE BASED ON USGS MAP CONTOURS.

11. A 20' MINIMUM SETBACK FROM PROPERTY LINE (AFTER DEDICATIONS) TO ARRAYS OR EQUIPMENT TO BE MAINTAINED ON SITE. PROJECT FENCE, FIRE ROADS, EASEMENTS, AND VEGETATION ARE OK WITHIN THE SETBACK.

LEGEND:

MIN ROW	MINIMUM RIGHT OF WAY
℄	CENTERLINE
	POWER POLE
x — x	FENCE LINE
	OVERHEAD LINE
	UNDERGROUND LINE
	PROPERTY LINE (AFTER DEDICATIONS)
	PROPERTY LINE (CURRENT)
	PARCEL LINE (SURVEYING)
2336	CONTOUR LINE (1' INTERVAL FROM ALL VALLEY)
	SOLAR ARRAY FIELD
	10' WIDE VEGETATIVE BUFFER
	10' WIDE SLOPE EASEMENT

200 0 200 400

SCALE IN FEET

1'=200'

WHEN PRINTED TO SCALE ON 22"x34" SHEET

BENCHMARK:

BM L1462 NAVD 1988, 2004 LANCASTER ADJUSTMENT, ELEV.=2336.348'

RDBM TAG IN CTR CONC HDWL 6.4M(21FT) N/O C/L AVE D & 101M(331FT) E/O C/L PROP 35TH ST W

SEE G-01 AND C-02 FOR ADDITIONAL INFORMATION REGARDING SURVEY.

R2011-00805 (RCUP2011-00074) C-01

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PLOT/UPDATE: Mar 24, 2014 11:41:02 AM

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.

17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

5MW AC Solar Photovoltaic Generation System

APN:
3115-010-004
SCH # 2012061068

Project Name:
Project 6 Lancaster WAD

Project Address:
W Ave. D & 35th St. W
Lancaster,
Los Angeles County, CA

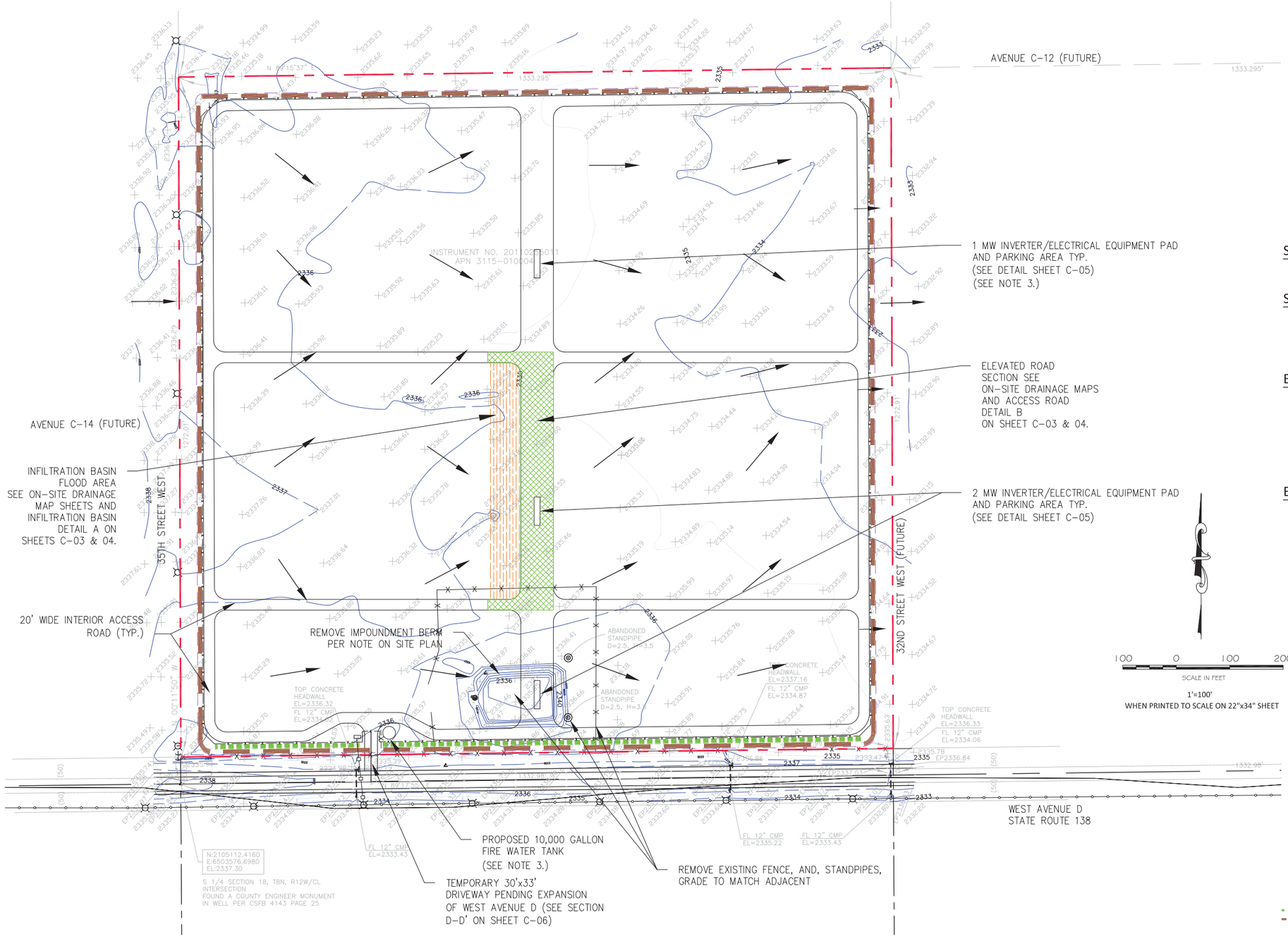
DRAWING: SITE PLAN

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 6
LANCASTER WAD
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main



EARTHWORK QUANTITIES:

OVEREXCAVATION	=	31,460 CUBIC YARDS
CUT	=	1,600 CUBIC YARDS
FILL	=	1,600 CUBIC YARDS

CUT & FILL QUANTITIES INCLUDE INVERTER PADS, BASIN, AND ELEVATED ROAD BED FOR DRAINAGE FEATURES.

OVEREXCAVATION QUANTITY INCLUDES ACCESSIBLE FIRE ROAD.

SURVEY INFORMATION:

TOPOGRAPHIC MAP AND 1' CONTOURING PREPARED BY ALL VALLEY SURVEYING, JANUARY 18, 2012

SURVEYOR:

LARRY E. JERNIGAN, PLS #5924
ALL VALLEY SURVEYING
44965 10TH STREET WEST
LANCASTER, CA 93534
(661) 942-3639

BASIS OF BEARINGS:

PID-EW0819
DESIGNATION- OBAN
STATE/COUNTY-CA/LOS ANGELES
USGS QUAD-ROSAMOND 1973

SPC CA5- N=2096834.88 E=6517733.23

SPC CA5- COMBINED FACTOR 0.99981691

BENCHMARK:

BM L1462 NAVD 1988, 2004 LANCASTER ADJUSTMENT, ELEV.=2336.348'

RDBM TAG IN CTR CONC HDWL 6.4M(21FT) N/O C/L AVE D & 101M(331FT) E/O C/L PROP 35TH ST W

NOTES:

1. DRAINAGE ACROSS SITE IS CURRENTLY FROM THE WEST TO THE EAST, AS SHOWN ON THE SURFACE CONTOURS. TOPOGRAPHY/CONTOURS ARE BASED ON SURVEY DATA PROVIDED BY ALL VALLEY SURVEYING.

2. OVERALL EXISTING GRADING AND DRAINAGE PATTERN TO REMAIN UNCHANGED DURING AND AFTER CONSTRUCTION WITH THE EXCEPTION OF AREAS USED FOR DRAINAGE FEATURES. ELEVATED ROAD SECTIONS WILL BE USED TO CREATE INFILTRATION BASINS. FLOOD AREAS AND FLOW PATTERN ARROWS ARE SHOWN ON THIS SHEET AND SHEETS C-03 AND C-04. LIMIT OF GRADING ACTIVITIES WILL BE AT PROPERTY LINE (AFTER DEDICATIONS).

3. EQUIPMENT PADS WILL BE GRADED AS REQUIRED PER MANUFACTURER SPECIFICATIONS.

LEGEND:

TYP.	TYPICAL
◎ =	STAND PIPE
⌘ =	POWER POLE
⊥ =	GUY WIRE
=	PADDLE MARKER
⊗ =	WELL PIPE
℄	CENTERLINE
CMP	CORRUGATED METAL PIPE
L.F.	LINEAR FEET
	10' WIDE VEGETATIVE BUFFER
	10' WIDE SLOPE EASEMENT

MIN	MINIMUM
ROW	RIGHT OF WAY
℄	CENTERLINE
—x—x—	FENCE LINE
	OVERHEAD LINE
	UNDERGROUND LINE
	PROPERTY LINE (AFTER DEDICATIONS)
	PROPERTY LINE (CURRENT)
	PARCEL LINE
2337	CONTOUR LINE (1' INTERVAL FROM ALL VALLEY SURVEYING)
	INFILTRATION BASIN FLOOD AREA
	ELEVATED ROAD SECTION

R2011-00805 (RCUP2011-00074) C-02

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PLOT/UPDATE: Mar 24, 2014 11:42:11 AM

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

5MW AC Solar Photovoltaic Generation System
APN:
3115-010-004
SCH # 2012061068

Project Name:
Project 6 Lancaster WAD
Project Address:
W Ave. D & 35th St. W
Lancaster,
Los Angeles County, CA

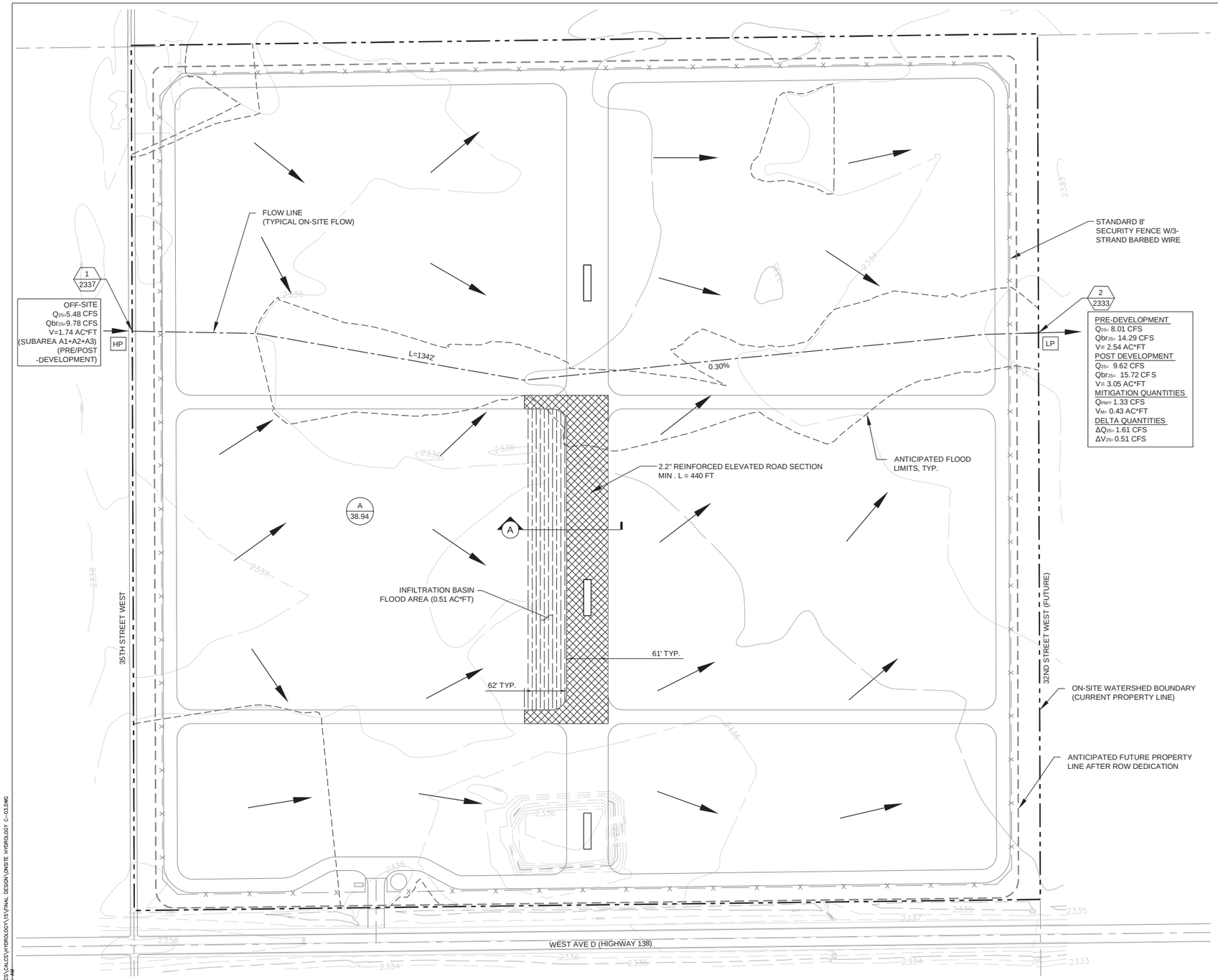
DRAWING: GRADING PLAN

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 6
LANCASTER WAD
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main



LEGEND:

XX / XX.X	SUBAREA ID / ACREAGE
XX / XXX	NODE ID / ELEVATION
HP	HIGH POINT
LP	LOW POINT
	WATERSHED BOUNDARY
	FUTURE PROPERTY LINE
X	SECURITY FENCING
	FLOW LINE
	ANTICIPATED 25-YR STORM EVENT FLOOD LIMITS
	ELEVATED ROAD SECTION
	INFILTRATION BASIN FLOOD AREA

Q_{25} PEAK FLOW RATE (25-YEAR STORM EVENT)
Qbr_{25} BURNED PEAK FLOW RATE (25-YEAR STORM EVENT)
V STORM VOLUME (25-YEAR STORM EVENT)
Q_{PM} PEAK MITIGATION FLOW RATE (85TH % STORM EVENT)
V_M MITIGATION VOLUME (85TH % STORM EVENT)
V_{DP} DEBRIS POTENTIAL VOLUME = (1,300 CY / SQ. MI.) * (TOTAL WATERSHED AREA 0.193 SQ. MI.) = 251 CY

DRAINAGE CONCEPT NOTES:

1) LOCATIONS OF DRAINAGE DEVICES SHOWN ARE NOT NECESSARILY APPROVED.
2) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3) APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTES).
4) AN OFFSITE DRAINAGE COVENANT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
5) A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
6) A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
7) BASIN SIZES ARE DEPENDENT ON THE VERIFICATION OF PERCOLATION RATES AND ARE SUBJECT TO CHANGE.
8) WITHIN A FEMA ZONE A.
9) WITHIN A COUNTY ADOPTED FLOODWAY.
10) ALL BASINS ARE PRIVATELY MAINTAINED.
11) FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATE (Q_{50}) INCREASED BY 8.5%, THE VOLUME (V_{50}) INCREASED BY 2.4%, THE DEPTH INCREASED BY 0.0%, AND THE VELOCITY INCREASED BY 2.7%. THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. SEE IMPACT ANALYSIS CALCULATIONS.

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO: _____ DATE _____
CHECKED BY: _____ DATE _____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

N
0 40' 80' 160'
SCALE: 1"=80'

R2011-00805 (RCUP2011-00074) C-03

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
JOSEPH E. DIETZ
No. 67032
EXP: 9-30-14
CIVIL
STATE OF CALIFORNIA

JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

5MW AC Solar Photovoltaic Generation System

APN:
3115-010-004
SCH # 2012061068

Project Name:
Project 6 Lancaster WAD

Project Address:
W Ave. D & 35th St. W
Lancaster,
Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID
FOR CUP 201100074
ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 6
LANCASTER WAD
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

P:\0/0446\135--0446-12001\SUPPORTDOCS\CALCS\HYDROLOGY\15\FINAL DESIGN\ONSITE HYDROLOGY C-03.DWG
Plot by:ROBERT Date: Mar 4, 2015 Time: 10:29 AM

HYDROLOGY RESULTS: (BASED ON LA FLOOD CONTROL TC CALCULATOR)

ON-SITE HYDROLOGY (PRE-DEVELOPMENT)

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre-ft)
Project 6	A	38.94	0.01	2	120	1342	0.003	1.0	30	0.26	0.10	0.11	1.11	0.34	1.80	0.36
Project 6	A	38.94	0.01	5	120	1342	0.003	1.5	30	0.39	0.10	0.11	1.67	0.34	2.84	0.54
Project 6	A	38.94	0.01	10	120	1342	0.003	1.9	30	0.48	0.10	0.11	2.06	0.34	3.58	0.66
Project 6	A	38.94	0.01	25	120	1342	0.003	2.3	30	0.59	0.10	0.11	2.53	0.34	4.51	0.80
Project 6	A	38.94	0.01	50	120	1342	0.003	2.6	30	0.67	0.11	0.12	3.13	0.34	5.43	0.92
Project 6	A	38.94	0.01	MIT.	120	1342	0.003	0.75	30	0.19	0.10	0.11	0.81	0.34	1.26	0.26

ON-SITE HYDROLOGY (POST-DEVELOPMENT)

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Flow rate (cfs)	Fire Factor	Burned flow rate (cfs)	Volume (acre-ft)
Project 6	A	38.94	0.1	2	120	1342	0.003	1.0	30	0.26	0.10	0.18	1.82	0.34	2.44	0.58
Project 6	A	38.94	0.1	5	120	1342	0.003	1.5	30	0.39	0.10	0.18	2.73	0.34	3.80	0.88
Project 6	A	38.94	0.1	10	120	1342	0.003	1.9	30	0.48	0.10	0.18	3.36	0.34	4.76	1.07
Project 6	A	38.94	0.1	25	120	1342	0.003	2.3	30	0.59	0.10	0.18	4.14	0.34	5.94	1.31
Project 6	A	38.94	0.1	50	120	1342	0.003	2.6	30	0.67	0.11	0.19	4.96	0.34	7.05	1.50
Project 6	A	38.94	0.1	MIT.	120	1342	0.003	0.75	30	0.19	0.10	0.18	1.33	0.34	1.74	0.43

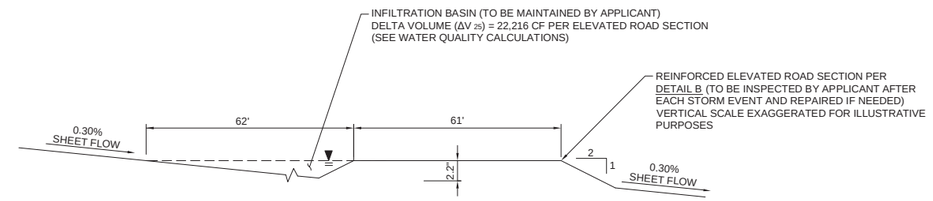
Incremental Flow and Volume Increase for Various Storm Events

Storm Event	Pre-Q (cfs)	Post-Q (cfs)	Delta-Q (cfs)	Pre-V (acre-ft)	Post-V (acre-ft	Delta-V (acre-ft)
2.00	1.11	1.82	0.71	0.36	0.58	0.22
5.00	1.67	2.73	1.06	0.54	0.88	0.34
10.00	2.06	3.36	1.30	0.66	1.07	0.41
25.00	2.53	4.14	1.61	0.80	1.31	0.51
50.00	3.13	4.96	1.83	0.92	1.50	0.58

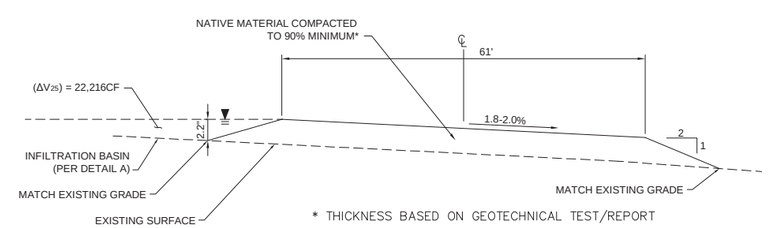
NOTE: FOR INFILTRATION BASIN MITIGATION VOLUME, SEE MIT. FREQUENCY FLOW VOLUME UNDER POST-DEVELOPMENT TABLE.

TOTAL DELTA QUANTITIES
$\Delta Q25$ = 4.14 CFS - 2.53 CFS = 1.61 CFS
$\Delta V25$ = 1.31 AC*FT - 0.80 AC*FT = 0.51 AC*FT

NOTE: DUE TO THE LID Δ QUANTITIES ABOVE BEING GREATER THAN THE MITIGATION QUANTITIES (Q_{25} AND V_{25}) THEY REPRESENT THE WORST CASE SCENARIO BETWEEN THE PRE-/POST DEVELOPMENT CONDITIONS AND THEREFORE SHALL BE USED FOR SIZING THE INFILTRATION BASINS.



A INFILTRATION BASIN DETAIL
SCALE: NTS



B REINFORCED ACCESS ROAD DETAIL (TYP.)
SCALE: NTS

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID PLAN
APPROVED FOR AREA AND Q ONLY
APPROVED BY:_____ RCE NO:_____ DATE_____
CHECKED BY:_____ DATE_____
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

R2011-00805 (RCUP2011-00074) C-04

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER JOSEPH E. DIETZ No. 67032 EXP: 9-30-14 CIVIL STATE OF CALIFORNIA
JOSEPH E. DIETZ, P.E.

EXHIBIT PREPARER:
TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

5MW AC Solar Photovoltaic Generation System
APN: 3115-010-004
SCH # 2012061068

Project Name: Project 6 Lancaster WAD
Project Address: W Ave. D & 35th St. W Lancaster, Los Angeles County, CA

HYDROLOGY STUDY/DRAINAGE CONCEPT/LID FOR CUP 201100074 ON-SITE DRAINAGE MAP

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 6
LANCASTER WAD
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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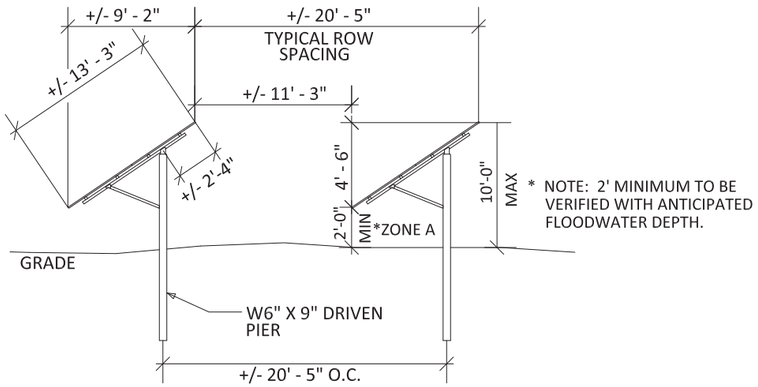
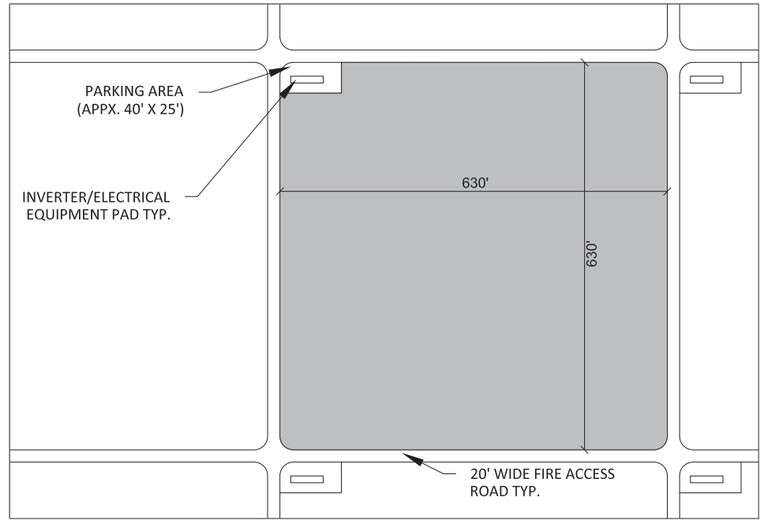


* NOTE: 2' MINIMUM TO BE VERIFIED WITH ANTICIPATED FLOODWATER DEPTH.

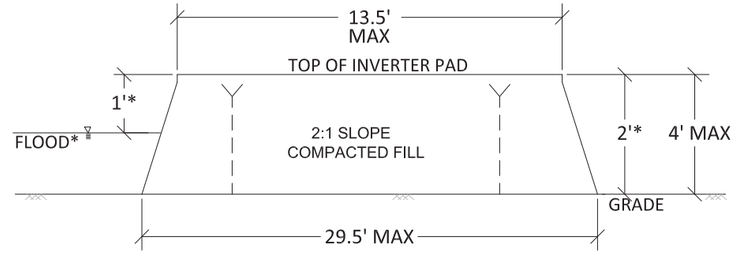
TYPICAL SOLAR ARRAY RACK DETAIL AND END ELEVATION

NOT TO SCALE



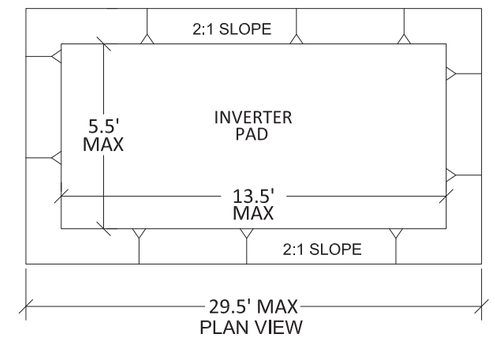
ARRAY BLOCK DETAIL (TYPICAL)

NOT TO SCALE



*TOP OF INVERTER PAD TO BE 1' MINIMUM ABOVE FLOOD WATER ELEVATION AS DETERMINED IN FINAL HYDROLOGY REPORT AND 2' ABOVE GRADE IN FEMA ZONE A.

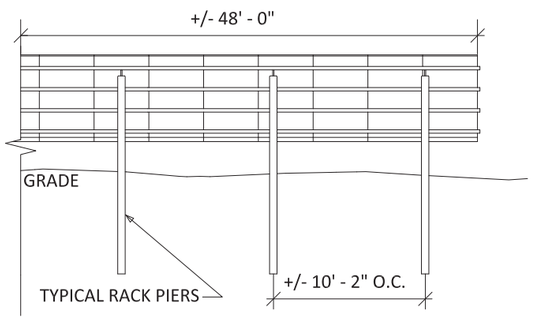
ELEVATION VIEW



PLAN VIEW

RAISED INVERTER PAD DETAILS FOR FLOOD AREAS AS NEEDED

NOT TO SCALE



SOLAR ARRAY RACK DETAIL ELEVATION

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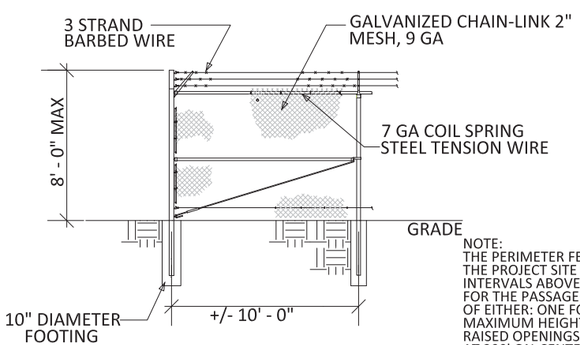
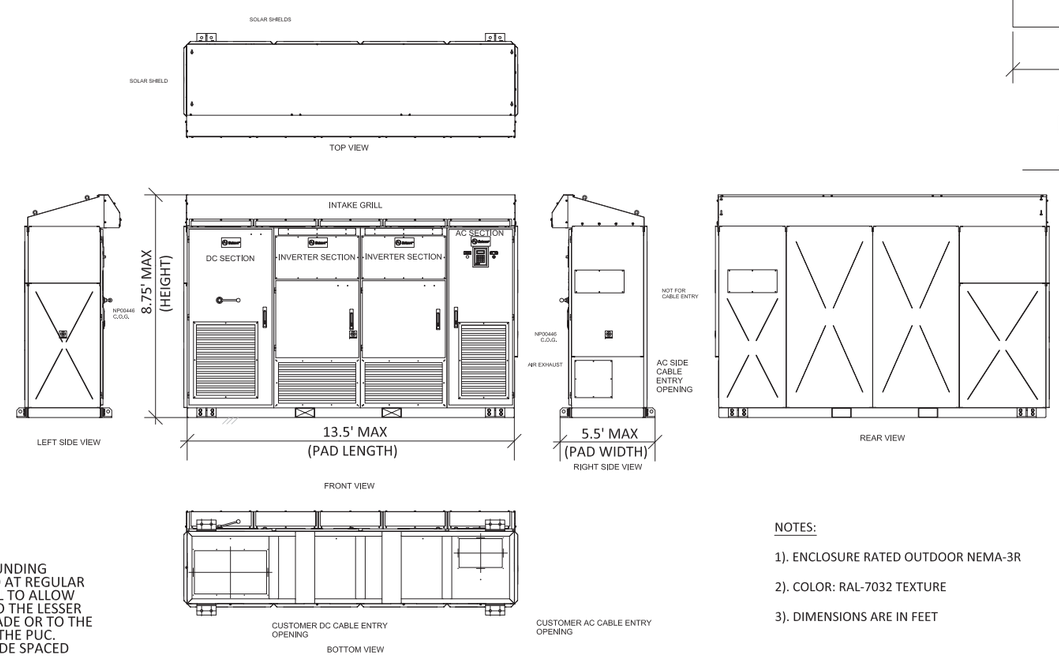


NOTE:
THE PERIMETER FENCING SURROUNDING THE PROJECT SITE WILL BE RAISED AT REGULAR INTERVALS ABOVE GROUND LEVEL TO ALLOW FOR THE PASSAGE OF WILDLIFE TO THE LESSER OF EITHER: ONE FOOT ABOVE GRADE OR TO THE MAXIMUM HEIGHT ALLOWED BY THE PUC. RAISED OPENINGS WILL BE 50' WIDE SPACED AT 200' ON-CENTER.

CHAIN LINK SECURITY FENCE ELEVATION

NOT TO SCALE



NOTES:

1). ENCLOSURE RATED OUTDOOR NEMA-3R

2). COLOR: RAL-7032 TEXTURE

3). DIMENSIONS ARE IN FEET

INVERTER PAD DETAILS (TYPICAL)

NOT TO SCALE

R2011-00805 (RCUP2011-00074) C-05

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

5MW AC Solar Photovoltaic Generation System

APN:
3115-010-004
SCH # 2012061068

Project Name:
Project 6 Lancaster WAD

Project Address:
W Ave. D & 35th St. W
Lancaster,
Los Angeles County, CA

DRAWING: DETAIL SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 6
LANCASTER WAD
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

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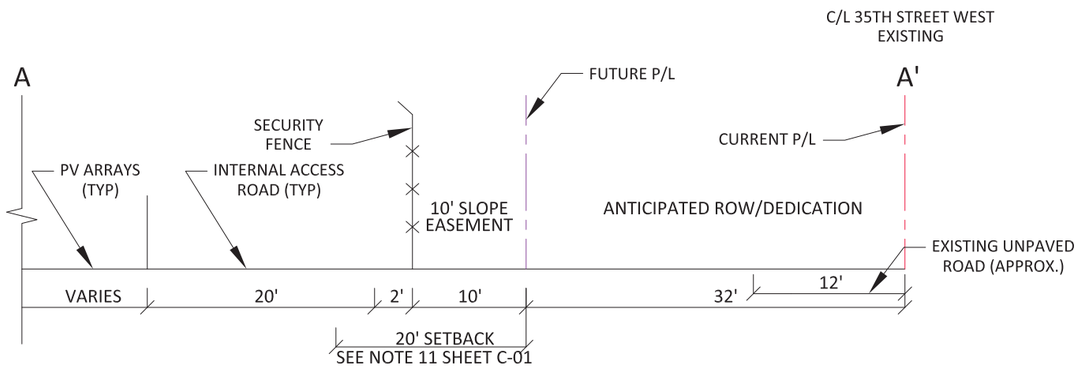

SECTION A - A'

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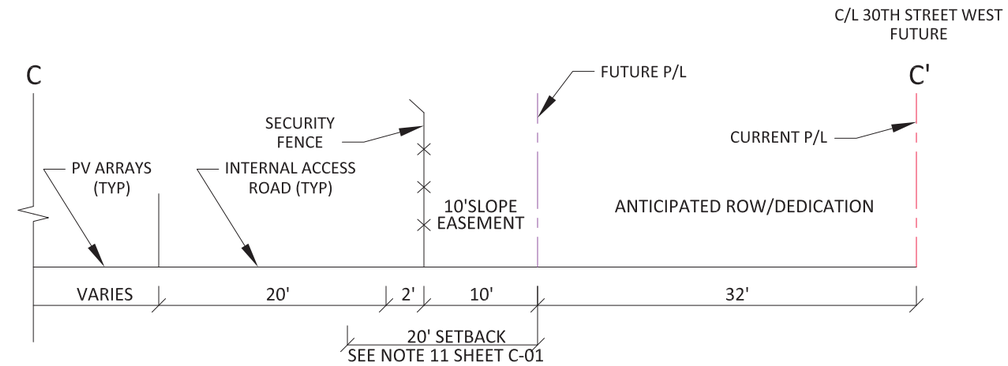

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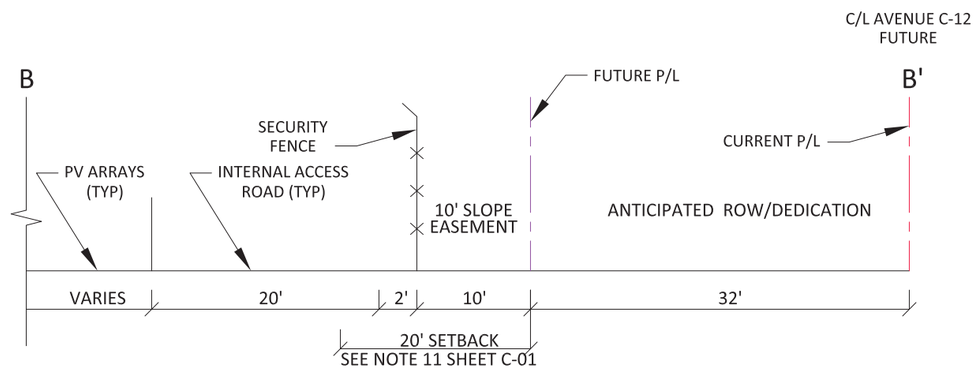

SECTION B - B'

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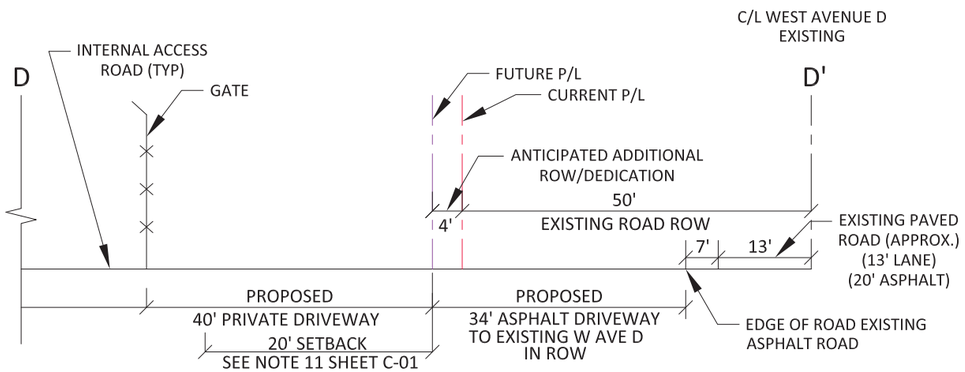

SECTION D - D'

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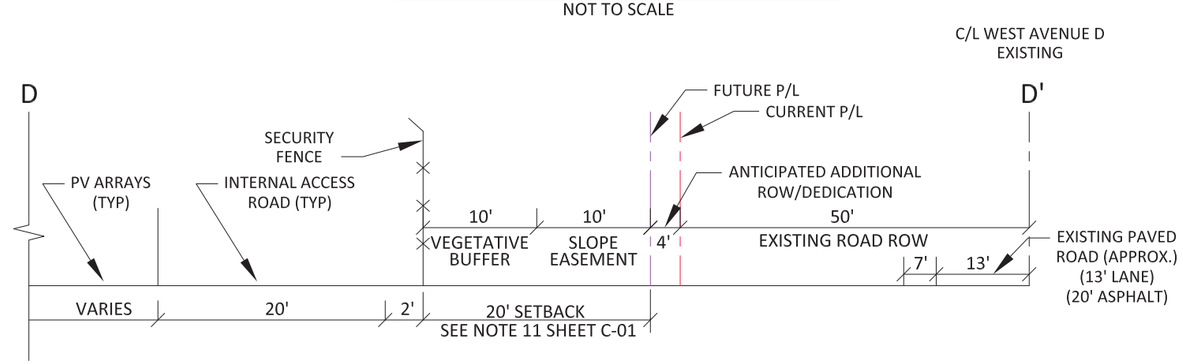

SECTION D - D'

NOT TO SCALE

R2011-00805 (RCUP2011-00074) C-06

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PLOT/UPDATE: Mar 24, 2014 6:37:48 AM

REGISTERED PROFESSIONAL ENGINEER JULIE ANN DELANEY No.C54558 CIVIL STATE OF CALIFORNIA

EXHIBIT PREPARER:

TETRA TECH, INC.
17885 VON KARMAN AVENUE, SUITE 500
IRVINE, CALIFORNIA 92614-6213
TEL: 949.809.5000

NOT ISSUED FOR CONSTRUCTION

NO.	DATE	REVISION	SUBM'T BY	APPV'D BY

Solar PV System Summary

5MW AC Solar Photovoltaic Generation System

APN:
3115-010-004

SCH # 2012061068

Project Name:
Project 6 Lancaster WAD

Project Address:
W Ave. D & 35th St. W
Lancaster,
Los Angeles County, CA

DRAWING: SECTION SHEET

APPLICANT:
Silverado Power
2 Embarcadero Center, Ste. 410
San Francisco, CA 94111
(415) 692-7740

SILVERADO power

PROJECT 6
LANCASTER WAD
LOS ANGELES COUNTY, CA

2 Embarcadero Center, Ste. 410 | San Francisco, CA 94111 | 415.692.7740 main

5.0 Mitigation Monitoring and Reporting Program

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V. MITIGATION MONITORING AND REPORTING PROGRAM

CEQA requires a Mitigation Monitoring and Reporting Program (MMRP) for projects where mitigation measures are a condition of project approval and development. The Draft EIR prepared for the Silverado Power West, Los Angeles County Projects identified mitigation measures, where appropriate, to avoid or substantially reduce the environmental impacts associated with the Project. This MMRP is designed to monitor the implementation of those mitigation measures. Accordingly, this MMRP has been prepared in compliance with the requirements of CEQA Section 21081.6 and CEQA Guidelines Section 15097.

This section lists each of the proposed Project Design Features (PDFs) and required Mitigation Measures (MMs) and identifies the corresponding action required for proof of compliance, the mitigation timing, the party responsible for implementation, and the monitoring agency or party responsible for ensuring each measure is adequately implemented.

Mitigation Monitoring and Reporting Program
Silverado Power West, Los Angeles County Projects
Project Nos. R2011-00833, 00798, 00799, 00807, 00801, 00805

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.1 AESTHETICS				
A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.	A. Submit Plan to AVAQMD for review and approval	Prior to any ground disturbance activities	Applicant/Construction Manager	LACDRP AVAQMD
	B. Maintain log demonstrating compliance. Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD
A-2 The Project site shall be maintained free of debris, trash, and waste during construction.	Site inspection	During construction	Applicant	LACDRP
A-3 The Project site shall be visually screened or partially screened during construction by fencing.	A. Submit Site Plans for review and approval	Prior to issuance of applicable building permit	Applicant	LACDRP
	B. Site inspection as needed	During construction	Applicant	LACDRP
A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.	A. Submit landscape plan for review and approval. The landscape plan must be approved prior to grading or building permit.	Prior to 1st grading or building permit whichever comes first for each project.	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
	B. Implement approved landscape plan	Prior to first energization approval by LADPW B & S	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on essential infrastructure rather than on separate light poles except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.	Submit final lighting plan for review and approval	Prior to issuance of building permit(s)	Applicant	LACDRP
5.2 AGRICULTURE AND FORESTRY				
No mitigation measures are required for Agriculture and Forestry.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.3 AIR QUALITY				
AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVQMD
AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of CVC Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Submit Transportation Demand Management program for review and approval	Prior to issuance of building permits	Applicant/Construction Manager	LACDRP LACDPW support and referral for trip reduction determination
AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation, to the greatest extent feasible, approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager/Biologist	LACFD LACDRP
AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP AVAQMD
AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.4 BIOLOGICAL RESOURCES				
B-1 Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to DRP and CDFW at their request.	A. Retain qualified Biologist(s)	Prior to issuance of Grading Permit	Applicant/Construction Monitor	LACDRP CDFW
	B. Field Surveys	Prior to grading permit	Applicant	LACDRP CDFW
	C. Maintain daily monitoring reports	During Construction	Applicant/Construction Monitor	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-2 Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below. • Pre-survey information gathering will include reviewing of all available agency nest data and mapping. • A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted. • Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds. • A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012). If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are	Pre-construction surveys for special-status species that have been identified as having potential to occur on site	Prior to grading or as specified per species	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
detected, either as wintering or breeding individuals. Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand excavated and collapsed under the supervision of the avian biologist. Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals. • Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.				
B-3 During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.	Biological Monitoring	During construction	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-4 Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily. Swainson's hawk: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity. The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats: Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows: • A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed Significant Ecological Area (SEA). • A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat; • A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat. Burrowing Owl: Mitigation for any occupied burrowing owl burrows found during pre-construction surveys will include a comprehensive tiered approach: • Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite; • Disturbance avoidance of occupied burrows during nesting period February 1 – August 31; • Impact avoidance of occupied burrows; • Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW). • Minimizing impacts by protecting in-place any owls, their burrows,	A. Acquire mitigation lands for Swainson's Hawk	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	B. Acquire mitigation lands for Burrowing Owl	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	C. Pre-construction survey for Alkali Mariposa Lilies	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	D. If necessary Acquire Alkali Mariposa Mitigation land	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback). • Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project. <u>Alkali Mariposa Lily</u>: Alkali mariposa lily will be avoided to the greatest extent possible. If pre-construction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable. For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-5 Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria: <u>Habitat Management Land Selection Criteria</u>: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired. Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred. <u>Habitat Management Lands Acquisition</u>: Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW. The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s) acquisition in an amount acceptable to the LACDRP and CDFW.	A. Obtain approval of habitat management lands	Prior to Acquisition	Applicant	LACDRP CDFW
	B. Record a permanent deed restriction or conservation easement on mitigation land(s)	Within 45 days of acquiring land(s)	Applicant	LACDRP CDFW
	C. Establish fund in the amount acceptable to LACDRP and CDFW for restoration, enhancement, and maintenance of the mitigation lands	Within 90-days of mitigation land(s) acquisition	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the applicant shall provide a proposed date of purchase which coincides with construction of the facility.				
B-6 Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.	Enter into an agreement with CDFW pursuant to sections 1601 through 1603	Prior to alteration of Streambed	Applicant	CDFW
B-7 Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads as follows: Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.	Revegetation of interior site, excluding interior roads	After construction	Applicant	LACDRP
5.5 CULTURAL RESOURCES				
CUL-1 In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist, in consultation with the Native American Monirot shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data	A. Archaeological monitoring and Native American monitor when there is a find	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP NAHC
	B. Maintain log demonstrating compliance	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
recovery excavations of the finds. No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.				
CUL-2 In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.	A. Archaeological and Native American monitoring	During construction	Applicant/Construction Manager/Qualified Archaeologist/NAHC representative	LACDRP NAHC
	B. Maintain documentation demonstrating compliance	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-3 Project 4 construction of gen-tie lines shall maintain the right of way buffer zones prescribed by SCE for this historic electric transmission line resource, which is an active transmission line. This Mitigation Measure shall apply to Project 4 only.	Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-4 Project construction for Project 4 shall maintain a one acre undisturbed area surrounding the Del Sur Cemetery site. This Mitigation Measure shall apply to Project 4 only.	A. Submit pre-construction surveys	Prior to construction	Applicant/Qualified Archaeologist	LACDRP
	B. Construction monitoring by qualified Archaeologist	During construction	Applicant/Qualified Archaeologist	LACDRP
	C. Submit construction monitoring documentation	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
	D. Site inspection as needed	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
CUL-5 A County approved archaeologist will be retained to initiate and supervise cultural resource monitoring during Project related earthwork in areas of the Project that are within 50 feet from certain significant cultural resources, specifically from the defined perimeter of site CA-LAN-1579H (Project 4). If resources are identified, the procedures outlined in CUL-1 will be followed and/or CUL-2 (as necessary). This Mitigation Measure shall apply to Project 4 only.	A. Archaeological monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	B. Maintain log demonstrating compliance	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. A The paleontologist shall develop and execute a Paleontological Resource Mitigation and Monitoring Program and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment according to the Program.	Paleontological Monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Paleontologist	LACDRP LAC Natural History Museum support/referral
5.6 GEOLOGY AND SOILS				
No mitigation measures are required for Geology and Soils.	N/A	N/A	N/A	N/A
5.7 GREENHOUSE GAS EMISSIONS				
GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	A. Submit operating permit(s) as required	Prior to commencement of construction	Applicant	AVAQMD LACDRP
	B. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-3 The off-road construction equipment drivers shall have proper training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-4 Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.	Site inspection as needed	During construction and grading	Applicant/Construction Manager	AVAQMD LACDRP
GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Maintain log demonstrating compliance	Prior to Building Permit	Applicant/Construction Manager	AVAQMD LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.8 HAZARDS/HAZARDOUS WASTES				
HH-1 Prior to the start of construction activities, a Hazardous Materials Management Plan shall be implemented for each project.	Submit Hazardous Materials Management Plan	Prior to start of construction	Applicant	DTSC
HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.	Submit Hazardous Waste Management Plan for each Project	Prior to start of construction	Applicant	DTSC
HH-3 Prior to the start of construction activities on the parcel containing the historic UST at the location of Project 1, a Phase I ESA will be completed. This mitigation measure only applies to Project 1.	Phase I ESA	Prior to issuance of grading permit(s)	Applicant	LACDRP
HH-4 Prior to the start of construction activities, a closure permit for the UST will be verified or obtained from the Los Angeles County Fire Department, Health Hazardous Materials Division. This mitigation measure only applies to Project 1.	Closure permit or verification for UST – Project 1 site	Prior to issuance of grading permit(s)	Applicant	LACFD
HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated	Testing of soil contamination	Prior to start of construction	Applicant	DTSC LACDRP
5.9 HYDROLOGY/WATER QUALITY				
Construction				
HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be available at each project site and a log kept to show education has occurred prior to the start of construction.	Maintain log demonstrating compliance of Educational materials and training for Property Owners, Tenants, Occupants, and Employee	During Construction	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit spill contingency plan	Prior to grading permit	Applicant	LACDRP
HYDRO-3 No hazardous materials are anticipated to be stored on-site. If deemed otherwise, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Maintain log demonstrating compliance	During construction and operations	Applicant/Construction Manager	LACFD
HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance of the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit all applicable information	Prior to grading permit	Applicant	LACFD
Operation				
HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often if containers approach overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area/room is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.	A. Include waste collection and disposal methods in construction contract specifications	During operation	Applicant	LACSD LACDRP
	B. Maintain log demonstrating compliance	During operation	Applicant	LACSD LACDRP
5.10 LAND USE AND PLANNING				
No mitigation measures are required for Land Use and Planning	N/A	N/A	N/A	N/A
5.11 NOISE				
N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.	Maintain log of construction equipment arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
	B. Inclusion of requirement for a Noise Control Plan	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed “package” equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest NSR are predicted to be above the County construction noise limit of 60 dBA during the day.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
	B. Site inspection as needed	During Construction	Applicant/Construction Manager	LACDRP
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project’s acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-8** Siting substations to achieve NEMA sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project: • Project 1 – 325 feet with a NEMA sound rating of 74 dBA • Project 2 – 1,511 feet with a NEMA sound rating of 81 dBA • Project 3 – 650 feet with a NEMA sound rating of 74 dBA	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
• Project 4 (two transformers) – 1,000 feet with a NEMA sound rating of 77 dBA • Project 5 – 748 feet with a NEMA sound rating of 82 dBA				
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-9** The Applicant shall choose to use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
5.12 PUBLIC SERVICES				
No mitigation measures are required for Public Services	N/A	N/A	N/A	N/A
5.13 TRANSPORTATION/TRAFFIC				
TT-1 Prior to issuance of first grading or building permit, Applicant shall document and submit all required information and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.	Submit Projects' road survey	Prior to issuance of first grading or building permit	Applicant	LACDPW
TT-2 The County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-00798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.	Provide street closure notifications	Three days prior to any street closures impacting fire and/or paramedics	Applicant/Construction Manager	LACFD

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
TT-3 Stagger construction work shifts before or after peak traffic hours.	A. Maintain log demonstrating compliance	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
	B. Site inspection as needed	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
TT-4 Schedule truck deliveries during off peak hours.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-5 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-6 Encourage carpooling between construction works.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.14 UTILITIES				
No mitigation measures are required for Utilities.	N/A	N/A	N/A	N/A

List of Acronyms:
B & S – building and safety
BMP – Best Management Practice
CEQA – California Environmental Quality Act
CASQA – California Association of Stormwater Quality Agencies
CBC – California Building Code
CDFW – California Department of Fish and Wildlife
CUP – Conditional Use Permit
CVC – California Vehicle Code
dBA – decibels (acoustics)
DPR – Department of Parks and Recreation
ESA – Environmental Site Assessment
hp – Horsepower
LACDPW – Los Angeles County Department of Public Works
LACFD – Los Angeles County Fire Department
mph – miles per hour
NEMA – National Electrical Manufacturers Association
OSHA – Occupational Safety and Health Administration
PRC – Public Resources Code
ROW – Right of Way
SCE – Southern California Edison
SWPPP – Stormwater Pollution Prevention Plan
UFC – Uniform Fire Code

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
UST – Underground Storage Tank WATCH – Work Area Traffic Control Handbook LACDPH – Los Angeles County Department of Public Health LACSD – Los Angeles County Sanitation District				

6.0 Appendix – Phase II ESA

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McAlister
GeoScience
1724 E. 1st Street #1 Long Beach, California 90802 (714) 423-3796

February 3, 2014

FTP Power
2 Embarcadero Center, Suite 410
San Francisco, California 94111

Attention: Ryan Galeria, Project Manager

Subject: Phase II Soil Sampling Environmental Site Assessment
240 Acres of Undeveloped Land at W. B and 110th Street Lancaster, California

Dear Mr. Galeria:

Attached is one electronic copy of the report on the Soil Sampling performed at the property comprised of approximately 240 acres of land at the northeast corner of West Avenue B and 110th Street West located west of Lancaster, County of Los Angeles, California.

Please call me should you have any questions about the report.

Sincerely,

David McAlister

Phase II Environmental Site Assessment
Soil Sampling Report

240 Acres of Undeveloped Land at
West Avenue B and 110th Street Lancaster, California

February 3, 2014

Prepared for:

FTP Solar, LLC
2 Embarcadero Center, Suite 410
San Francisco, California 94104

Prepared by:

McAlister GeoScience
1724 East 1st Street #1
Long Beach, California 90802

David McAlister

EXECUTIVE SUMMARY

McAlister GeoScience was retained by FTP Solar, LLC (the Client) to conduct a Phase II Environmental Site Assessment (ESA) consisting of soil sampling of the property comprised of approximately 240 acres of land at the northeast corner of West Avenue B and 110th Street West located west of Lancaster, California (the Subject Property). The location of the Subject Property is shown on Figure 1.

The purpose of this soil sampling and analysis project is to document the nature and extent of potential organochloride and arsenic-based pesticides associated with the former use of the Subject Property for agricultural purposes.

Eight soil samples were collected between three and six inches below the surface at various locations at the Subject Property. Soil sample locations are identified on Figure 2.

Field observations of the soil samples collected from the eight borings advanced at the Subject Property did not exhibit odors, staining, or stressed vegetation indicating impacted soil.

All eight samples were analyzed for organochloride pesticides and two samples (B/110B2 & B/110B7) were analyzed for arsenic. Concentrations of 4,4'-DDE in the soil samples collected ranged from below the laboratory detection limit of 5.0 µg/Kg to 230 µg/Kg. Concentrations of 4,4'-DDT in the soil samples collected ranged from below the laboratory detection limit of 5.0 µg/Kg to 27 µg/Kg. The California Human Health Screening Level for 4,4'-DDE and 4,4'-DDT is 6,300 µg/Kg.

Arsenic was detected at 8.2 mg/Kg in soil sample B/110B2 collected from the central portion of the Subject Property along the southern property boundary. Arsenic was detected at 7.6 mg/Kg in soil sample B/110B7 collected in the eastern portion of the Subject Property. The California Human Health Screening Level for arsenic is 0.24 mg/Kg; however average naturally-occurring concentrations of arsenic in benchmark California soils is 3.5 mg/Kg and the maximum naturally-occurring concentrations of arsenic in benchmark California soils is 11.0 mg/Kg.

The results of this investigation have determined that soil at the Subject Property contains concentrations of organochloride and arsenic-based pesticides associated with the former use of the Subject Property for agricultural purposes. Organochloride concentrations were below the regulatory action levels and arsenic concentrations were below the maximum naturally-occurring concentration of arsenic in benchmark California soils.

No additional investigation or further actions are necessary or warranted at this time.

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1.0 INTRODUCTION

McAlister GeoScience was retained by FTP Solar, LLC (the Client) to conduct a Phase II Environmental Site Assessment (ESA) consisting of soil sampling of the property comprised of approximately 240 acres of land at the northeast corner of West Avenue B and 110th Street West located west of Lancaster, California (the Subject Property). The location of the Subject Property is shown on Figure 1.

This project was conducted pursuant to authorization of the scope of work, estimated costs and schedule, and terms and conditions outlined in the proposal dated November 18, 2013 and in general accordance with the scope of work and limitations of the American Society of Testing and Materials (ASTM) Standard Guide for Soil Sampling from the Vadose Zone, Designation D4700-91(2006) and the ASTM Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process, Designation E1903-11.

1.1 Purpose

The purpose of this soil sampling and analysis project is to document the nature and extent of potential organochloride and arsenic-based pesticides associated with the former use of the Subject Property for agricultural purposes.

1.2 Limitations and Exceptions of Assessment

The property assessment described in this report should not be construed as a complete characterization of environmental regulatory compliance or of above and below ground environmental conditions. McAlister GeoScience utilized standard data collection techniques while completing the work; however, a comprehensive characterization of all sub-surface conditions is neither appropriate nor feasible. Therefore, reliance by the Client on the information presented in this report shall be consistent with the limitations expressed herein, and subject to the project scope of work and terms of the contract between McAlister GeoScience and the Client.

The services provided were in accordance with the standard of care and skill ordinarily exercised by members of the profession currently participating in the same locality under similar conditions. No other representation, expressed or implied, and no warranty or guarantee is included or intended in this report.

2.0 BACKGROUND

2.1 Site Description and Features

The majority of the Subject Property was observed to be undeveloped land with unimproved and unmaintained dirt roads, an unoccupied residential structure, wells, and various other features associated with former agricultural use of the Subject Property. Site features are identified on Figure 2.

2.2 Previous Investigations

Historic aerial photographs reviewed for the development of the Phase I ESA by McAlister GeoScience indicate that the southern portion of the Subject Property has been developed for agricultural purposes such as row crops beginning with rows from east to west in the late 1940s and early 1950s and rows from north to south from the late 1960s to the present day. The southwest corner of the Subject Property is occupied with a water holding pond with buildings to the north and south in the late 1940 through the late 1960s.

2.3 Pre-Field Preparation

Prior to conducting field activities, a project-specific health and safety plan (HASP) was developed outlining the various hazards associated with the proposed scope of work. The HASP was developed to cover risks of exposure to potential contaminants as well as biological hazards and physical hazards associated with the performance of the work and the equipment used to complete the work. Additional pre-field activities included coordination with the laboratory and other tasks necessary to ensure a seamless and problem-free field mobilization.

3.0 SAMPLING ACTIVITIES

3.1 Scope of Assessment

A total eight soil samples were collected from various locations across the Subject Property and submitted to a State of California certified laboratory for analysis.

3.2 Field Explorations and Methods

A total eight soil samples were collected utilizing a hand-held spade. Soils encountered were described for the texture, structure, color, and any staining, discoloration, and / or odors were noted in the field notes. Soil sample locations are identified on Figure 2.

Soil samples were packaged in four-ounce glass jars. Samples were labeled and transmitted to SunStar Laboratories, an environmental laboratory certified by the State of California utilizing a chain of custody and an ice chest packed with ice as a preservative.

3.3 Laboratory Analysis Methods

The laboratory was requested to analyze the soil samples collected for organochloride pesticides by Environmental Protection Agency (EPA) Method 8081. Two samples (B/110B2 & B/110B7) were analyzed for arsenic by EPA Method 6010.

4.0 RESULTS AND CONCLUSIONS

4.1 Results

A total eight soil samples were collected from various locations across the Subject Property. Soil sample locations are identified on Figure 2. Field observations of the soil samples collected from the eight borings advanced at the Subject Property did not exhibit odors, staining, or stressed vegetation indicating impacted soil.

4.2 Conclusions

All eight samples were analyzed for organochloride pesticides and two samples (B/110B2 & B/110B7) were analyzed for arsenic. Concentrations of 4,4′-DDE in the soil samples collected ranged from below the laboratory detection limit of 5.0 µg/Kg to 230 µg/Kg. Concentrations of 4,4′-DDT in the soil samples collected ranged from below the laboratory detection limit of 5.0 µg/Kg to 27 µg/Kg. The California Human Health Screening Level for 4,4′-DDE and 4,4′-DDT is 6,300 µg/Kg.

Arsenic was detected at 8.2 mg/Kg in soil sample B/110B2 collected from the central portion of the Subject Property along the southern property boundary. Arsenic was detected at 7.6 mg/Kg in soil sample B/110B7 collected in the eastern portion of the Subject Property. The California Human Health Screening Level for arsenic is 0.24 mg/Kg; however average naturally-occurring concentrations of arsenic in benchmark California soils is 3.5 mg/Kg and the maximum naturally-occurring concentrations of arsenic in benchmark California soils is 11.0 mg/Kg. Analytical results are summarized on Table 1. Laboratory analytical and chain of custody forms are included in Appendix A.

The soil sampling and analysis detailed herein was conducted for the purpose of documenting the nature and extent of potential soil impacts associated with the former use of the Subject Property as for agricultural purposes. The results of this investigation have determined that soil at the Subject Property contains concentrations of organochloride and arsenic-based pesticides associated with the former use of the Subject Property for agricultural purposes. Organochloride concentrations were below the regulatory action levels and arsenic concentrations were below the maximum naturally-occurring concentration of arsenic in benchmark California soils.

No additional investigation or further actions are necessary or warranted at this time.

5.0 REFERENCES

American Society for Testing and Materials (ASTM) 2006. Practice D4700-91(2006) Standard Guide for Soil Sampling from the Vadose Zone.

American Society for Testing and Materials (ASTM) 2011. Practice E1903-11 Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process.

McAlister GeoScience. Phase I Environmental Site Assessment Report, Approximately 240 Acres Northeast corner of West Avenue B and 110th Street West. West of Lancaster, Los Angeles County, California.

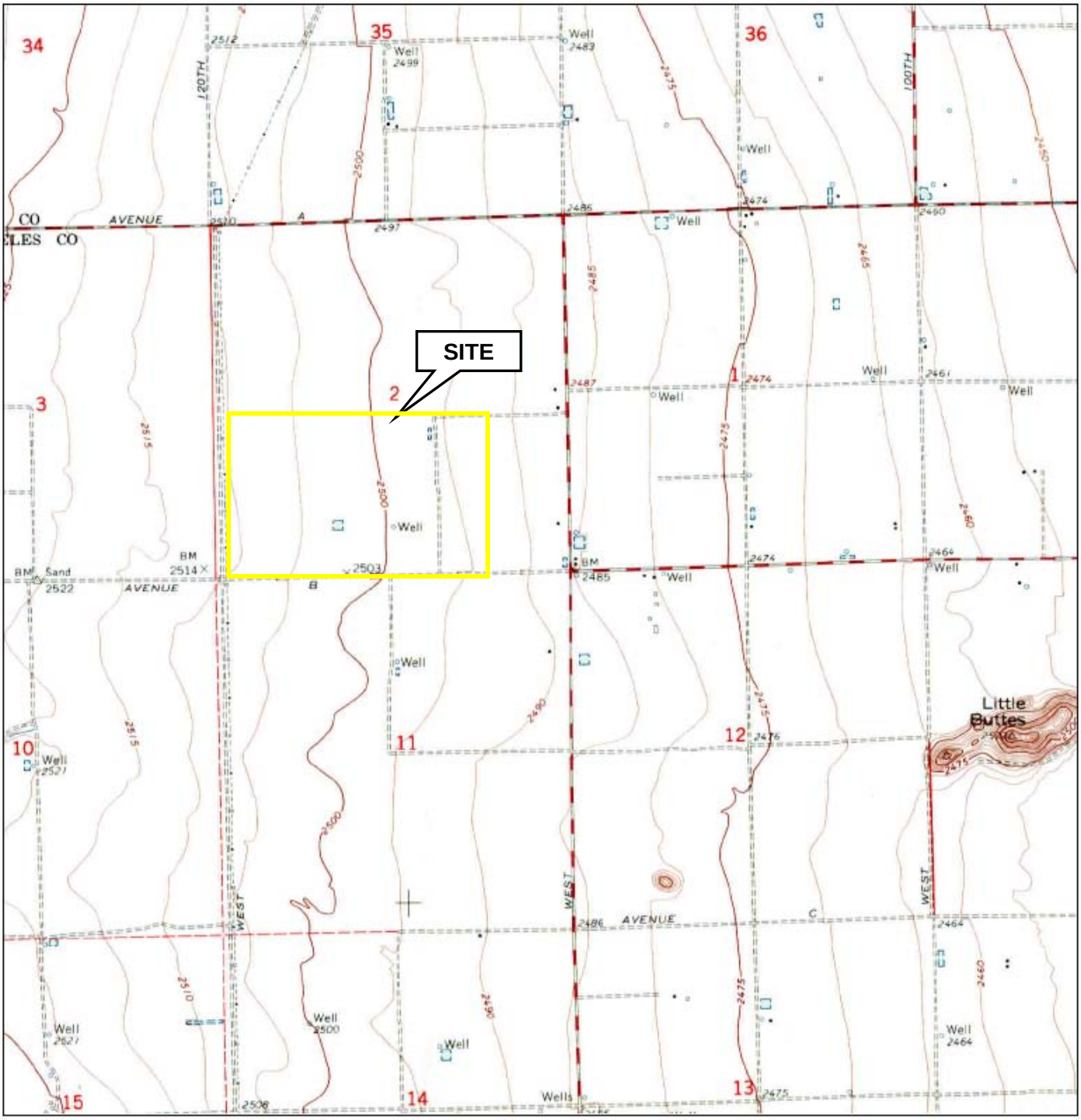
Table

Table 1
Analytical Results
West Avenue B and 110th Street West
Lancaster, California

Sample	Arsenic (6010)	Organochlorine Pesticides (8081A)	
	(mg/Kg)	4-4'-DDE (µg/Kg)	4-4'-DDT (µg/Kg)
CHHSLs	**0.24**	**6,300**	**6,300**
B/110B1	NA	ND (5.0)	ND (5.0)
B/110B2	8.2	230	27
B/110B3	NA	79	17
B/110B4	NA	40	ND (5.0)
B/110B5	NA	ND (5.0)	ND (5.0)
B/110B6	NA	31	ND (5.0)
B/110B7	7.6	ND (5.0)	ND (5.0)
B/110B8	NA	ND (5.0)	ND (5.0)

Note:
mg/Kg - Milligrams per kilogram
µg/Kg - Micrograms per Kilogram
ND - Not Detected
NA - Not Analyzed
CHHSLs - California Human Health Screening Levels, Commercial / Soil concentrations for industrial land use listed.
Average Arsenic Concentration in California Soils = 3.5 mg/Kg
Maximum Arsenic Concentration in California Soils = 11 mg/Kg
Kearney Foundation of Soil Science Special Report. Background Concentrations of Trace and Major Elements in California Soils. March, 1996.

Figures



SOURCE: EDR Historical Topographical Map Report 1974

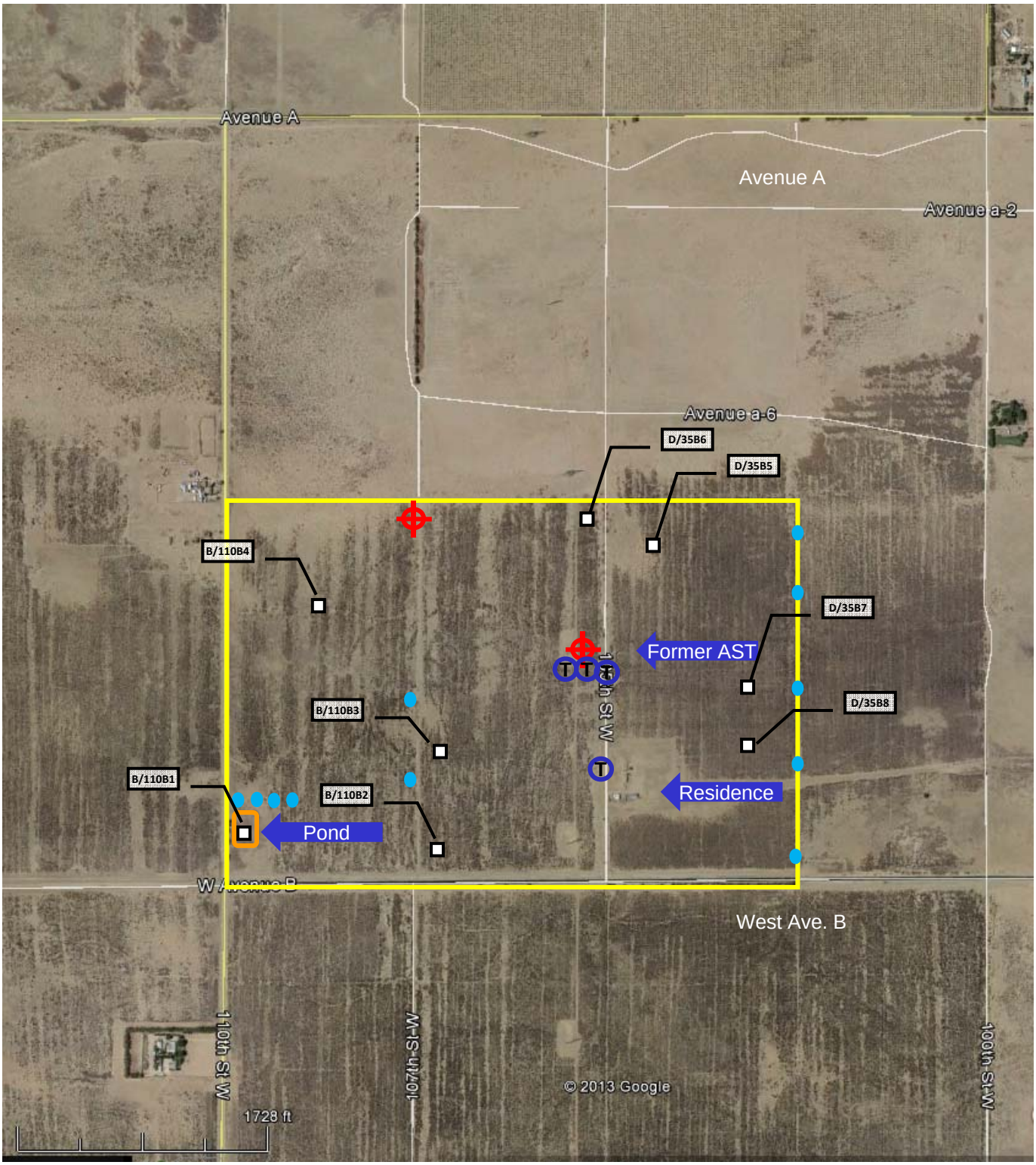
N

7.5 minute Orthophoto Quad.

TITLE: **Site Location Map**

LOCATION: **240 Acres of Undeveloped Land at W. Ave. B & 110th St. Lancaster, California**

CHECKED:	D.McAlister	**FIGURE:**
DRAFTED:		**1**
FILE:		
DATE:	01-10-2014	



Legend:

- Groundwater Supply Well
- Pole-mounted transformer
- Irrigation Piping

N

SOURCE*: Google Earth, 2014*

TITLE:	**Sampling Locations**
LOCATION:	**240 Acres of Undeveloped Land at W. Ave. B & 110th St. Lancaster, California**

CHECKED:	D.McAlister	**FIGURE:**
DRAFTED:		**2**
FILE:		
DATE:	01-10-2014	

Appendix A

Laboratory Analytical and Chain of Custody Forms

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

20 January 2014

Dave Mcalister
Mcalister Geoscience
1724 East 1st #1
Long Beach, CA 90802
RE: Lancaster

Enclosed are the results of analyses for samples received by the laboratory on 01/13/14 11:08. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Katherine RunningCrane

Katherine RunningCrane
Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
I/120 B1	T140064-01	Soil	01/12/14 13:37	01/13/14 11:08
I/120 B2	T140064-02	Soil	01/12/14 13:43	01/13/14 11:08
I/120 B3	T140064-03	Soil	01/12/14 13:50	01/13/14 11:08
I/120 B4	T140064-04	Soil	01/12/14 14:06	01/13/14 11:08
I/120 B5	T140064-05	Soil	01/12/14 14:20	01/13/14 11:08
I/120 B6	T140064-06	Soil	01/12/14 14:25	01/13/14 11:08
I/120 B7	T140064-07	Soil	01/12/14 14:30	01/13/14 11:08
I/120 B8	T140064-08	Soil	01/12/14 14:26	01/13/14 11:08
J/90 B1	T140064-09	Soil	01/12/14 11:45	01/13/14 11:08
J/90 B2	T140064-10	Soil	01/12/14 12:00	01/13/14 11:08
J/90 B3	T140064-11	Soil	01/12/14 12:12	01/13/14 11:08
J/90 B4	T140064-12	Soil	01/12/14 12:23	01/13/14 11:08
J/90 B5	T140064-13	Soil	01/12/14 12:34	01/13/14 11:08
J/90 B6	T140064-14	Soil	01/12/14 12:48	01/13/14 11:08
J/90 B7	T140064-15	Soil	01/12/14 12:54	01/13/14 11:08
J/90 B8	T140064-16	Soil	01/12/14 13:05	01/13/14 11:08
G/70 B1	T140064-17	Soil	01/12/14 12:40	01/13/14 11:08
G/70 B2	T140064-18	Soil	01/12/14 12:45	01/13/14 11:08
G/70 B3	T140064-19	Soil	01/12/14 12:50	01/13/14 11:08
G/70 B4	T140064-20	Soil	01/12/14 12:55	01/13/14 11:08
G/70 B5	T140064-21	Soil	01/12/14 13:00	01/13/14 11:08
G/70 B6	T140064-22	Soil	01/12/14 13:05	01/13/14 11:08
G/70 B7	T140064-23	Soil	01/12/14 13:10	01/13/14 11:08
G/70 B8	T140064-24	Soil	01/12/14 13:15	01/13/14 11:08
B/110 B1	T140064-25	Soil	01/12/14 10:15	01/13/14 11:08
B/110 B2	T140064-26	Soil	01/12/14 10:20	01/13/14 11:08

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B/110 B3	T140064-27	Soil	01/12/14 10:25	01/13/14 11:08
B/110 B4	T140064-28	Soil	01/12/14 10:30	01/13/14 11:08
B/110 B5	T140064-29	Soil	01/12/14 10:50	01/13/14 11:08
B/110 B6	T140064-30	Soil	01/12/14 11:00	01/13/14 11:08
B/110 B7	T140064-31	Soil	01/12/14 11:10	01/13/14 11:08
B/110 B8	T140064-32	Soil	01/12/14 11:15	01/13/14 11:08
D/35 B1	T140064-33	Soil	01/12/14 11:40	01/13/14 11:08
D/35 B2	T140064-34	Soil	01/12/14 11:50	01/13/14 11:08
D/35 B3	T140064-35	Soil	01/12/14 11:55	01/13/14 11:08
D/35 B4	T140064-36	Soil	01/12/14 12:00	01/13/14 11:08
D/35 B5	T140064-37	Soil	01/12/14 12:10	01/13/14 11:08
D/35 B6	T140064-38	Soil	01/12/14 12:15	01/13/14 11:08
D/35 B7	T140064-39	Soil	01/12/14 12:20	01/13/14 11:08
D/35 B8	T140064-40	Soil	01/12/14 12:25	01/13/14 11:08

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

I/120 B1

T140064-01 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.8 %*	*35-140*		*"*	*"*	*"*	*"*	

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

I/120 B2

T140064-02 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.0 %*	*35-140*		*"*	*"*	*"*	*"*	

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PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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949.297.5027 Fax

Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

I/120 B3

T140064-03 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*97.2 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

SunStar Laboratories, Inc.
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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

I/120 B4

T140064-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

I/120 B5

T140064-05 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

I/120 B6

T140064-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

I/120 B7

T140064-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*114 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

I/120 B8

T140064-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

J/90 B1

T140064-09 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*110 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

J/90 B2

T140064-10 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.1 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

J/90 B3

T140064-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*77.3 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

J/90 B4

T140064-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.6 %*	*35-140*		*"*	*"*	*"*	*"*	

SunStar Laboratories, Inc.

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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25712 Commercentre Drive
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949.297.5020 Phone
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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

J/90 B5

T140064-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

J/90 B6

T140064-14 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.7 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

J/90 B7

T140064-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

J/90 B8

T140064-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.7 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

G/70 B1

T140064-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*97.5 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B2

T140064-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B3

T140064-19 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*107 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B4

T140064-20 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

G/70 B5

T140064-21 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B6

T140064-22 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.7 %*	*35-140*		*"*	*"*	*"*	*"*	

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PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B7

T140064-23 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.8 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B8

T140064-24 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

B/110 B1

T140064-25 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.9 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

B/110 B2

T140064-26 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	**8.2**	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**230**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	**27**	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*74.5 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

B/110 B3

T140064-27 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**79**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	**17**	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*78.7 %*	*35-140*		"	"	"	"	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

B/110 B4

T140064-28 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**40**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.5 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

B/110 B5

T140064-29 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.4 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

B/110 B6

T140064-30 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**31**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*115 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

B/110 B7

T140064-31 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	**7.6**	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*110 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

B/110 B8

T140064-32 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*89.7 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

D/35 B1

T140064-33 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.5 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

D/35 B2

T140064-34 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*89.2 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

D/35 B3

T140064-35 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.8 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

D/35 B4

T140064-36 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*75.9 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

D/35 B5

T140064-37 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.3 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

D/35 B6

T140064-38 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.7 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

D/35 B7

T140064-39 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*82.2 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

D/35 B8

T140064-40 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4011322 - EPA 3051										
Blank (4011322-BLK1)				Prepared: 01/13/14		Analyzed: 01/14/14				
Arsenic	ND	5.0	mg/kg							
LCS (4011322-BS1)				Prepared: 01/13/14		Analyzed: 01/14/14				
Arsenic	109	5.0	mg/kg	100		109	75-125			
Matrix Spike (4011322-MS1)		**Source: T140064-01**		Prepared: 01/13/14		Analyzed: 01/14/14				
Arsenic	95.4	5.0	mg/kg	100	ND	95.4	75-125			
Matrix Spike Dup (4011322-MSD1)		**Source: T140064-01**		Prepared: 01/13/14		Analyzed: 01/14/14				
Arsenic	90.1	5.0	mg/kg	100	ND	90.1	75-125	5.72	20	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4011324 - EPA 3550 ECD/GCMS										
Blank (4011324-BLK1)				Prepared: 01/13/14 Analyzed: 01/18/14						
alpha-BHC	ND	5.0	ug/kg							
gamma-BHC (Lindane)	ND	5.0	"							
beta-BHC	ND	5.0	"							
delta-BHC	ND	5.0	"							
Heptachlor	ND	5.0	"							
Aldrin	ND	5.0	"							
Heptachlor epoxide	ND	5.0	"							
gamma-Chlordane	ND	5.0	"							
alpha-Chlordane	ND	5.0	"							
Endosulfan I	ND	5.0	"							
4,4´-DDE	ND	5.0	"							
Dieldrin	ND	5.0	"							
Endrin	ND	5.0	"							
4,4´-DDD	ND	5.0	"							
Endosulfan II	ND	5.0	"							
4,4´-DDT	ND	5.0	"							
Endrin aldehyde	ND	5.0	"							
Endosulfan sulfate	ND	5.0	"							
Methoxychlor	ND	10	"							
Endrin ketone	ND	5.0	"							
Toxaphene	ND	200	"							
Surrogate: Tetrachloro-meta-xylene	*9.67*		*"*	*10.0*		*96.7*	*35-140*			
LCS (4011324-BS1)				Prepared: 01/13/14 Analyzed: 01/18/14						
gamma-BHC (Lindane)	79.4	5.0	ug/kg	100		79.4	40-120			
Heptachlor	101	5.0	"	100		101	40-120			
Aldrin	86.1	5.0	"	100		86.1	40-120			
Dieldrin	93.0	5.0	"	100		93.0	40-120			
Endrin	64.7	5.0	"	100		64.7	40-120			
4,4´-DDT	91.0	5.0	"	100		91.0	33-147			
Surrogate: Tetrachloro-meta-xylene	*8.31*		*"*	*10.0*		*83.1*	*35-140*			

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4011324 - EPA 3550 ECD/GCMS										
Matrix Spike (4011324-MS1)		**Source: T140064-21**		Prepared: 01/13/14	Analyzed: 01/18/14					
gamma-BHC (Lindane)	92.7	5.0	ug/kg	100	ND	92.7	30-120			
Heptachlor	87.7	5.0	"	100	ND	87.7	30-120			
Aldrin	92.4	5.0	"	100	ND	92.4	30-120			
Dieldrin	101	5.0	"	100	ND	101	30-120			
Endrin	78.0	5.0	"	100	ND	78.0	30-120			
4,4´-DDT	99.4	5.0	"	100	ND	99.4	30-120			
Surrogate: Tetrachloro-meta-xylene	*10.0*		*"*	*10.0*		*100*	*35-140*			
Matrix Spike Dup (4011324-MSD1)		**Source: T140064-21**		Prepared: 01/13/14	Analyzed: 01/18/14					
gamma-BHC (Lindane)	86.5	5.0	ug/kg	100	ND	86.5	30-120	6.95	30	
Heptachlor	83.9	5.0	"	100	ND	83.9	30-120	4.45	30	
Aldrin	92.2	5.0	"	100	ND	92.2	30-120	0.262	30	
Dieldrin	92.6	5.0	"	100	ND	92.6	30-120	8.25	30	
Endrin	72.6	5.0	"	100	ND	72.6	30-120	7.16	30	
4,4´-DDT	80.2	5.0	"	100	ND	80.2	30-120	21.4	30	
Surrogate: Tetrachloro-meta-xylene	*9.45*		*"*	*10.0*		*94.5*	*35-140*			
Batch 4011325 - EPA 3550 ECD/GCMS										
Blank (4011325-BLK1)				Prepared: 01/13/14	Analyzed: 01/17/14					
alpha-BHC	ND	5.0	ug/kg							
gamma-BHC (Lindane)	ND	5.0	"							
beta-BHC	ND	5.0	"							
delta-BHC	ND	5.0	"							
Heptachlor	ND	5.0	"							
Aldrin	ND	5.0	"							
Heptachlor epoxide	ND	5.0	"							
gamma-Chlordane	ND	5.0	"							
alpha-Chlordane	ND	5.0	"							
Endosulfan I	ND	5.0	"							
4,4´-DDE	ND	5.0	"							
Dieldrin	ND	5.0	"							
Endrin	ND	5.0	"							
4,4´-DDD	ND	5.0	"							
Endosulfan II	ND	5.0	"							
4,4´-DDT	ND	5.0	"							

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4011325 - EPA 3550 ECD/GCMS										
Blank (4011325-BLK1)				Prepared: 01/13/14		Analyzed: 01/17/14				
Endrin aldehyde	ND	5.0	ug/kg							
Endosulfan sulfate	ND	5.0	"							
Methoxychlor	ND	10	"							
Endrin ketone	ND	5.0	"							
Toxaphene	ND	200	"							
Surrogate: Tetrachloro-meta-xylene	*10.1*		*"*	*10.0*		*101*	*35-140*			
LCS (4011325-BS1)				Prepared: 01/13/14		Analyzed: 01/17/14				
gamma-BHC (Lindane)	85.8	5.0	ug/kg	100		85.8	40-120			
Heptachlor	99.4	5.0	"	100		99.4	40-120			
Aldrin	94.8	5.0	"	100		94.8	40-120			
Dieldrin	97.3	5.0	"	100		97.3	40-120			
Endrin	70.1	5.0	"	100		70.1	40-120			
4,4´-DDT	100	5.0	"	100		100	33-147			
Surrogate: Tetrachloro-meta-xylene	*8.93*		*"*	*10.0*		*89.3*	*35-140*			
Matrix Spike (4011325-MS1)		**Source: T140064-01**		Prepared: 01/13/14		Analyzed: 01/17/14				
gamma-BHC (Lindane)	72.2	5.0	ug/kg	100	ND	72.2	30-120			
Heptachlor	94.6	5.0	"	100	ND	94.6	30-120			
Aldrin	79.5	5.0	"	100	ND	79.5	30-120			
Dieldrin	81.4	5.0	"	100	ND	81.4	30-120			
Endrin	62.7	5.0	"	100	ND	62.7	30-120			
4,4´-DDT	81.5	5.0	"	100	ND	81.5	30-120			
Surrogate: Tetrachloro-meta-xylene	*7.42*		*"*	*10.0*		*74.2*	*35-140*			
Matrix Spike Dup (4011325-MSD1)		**Source: T140064-01**		Prepared: 01/13/14		Analyzed: 01/17/14				
gamma-BHC (Lindane)	89.9	5.0	ug/kg	100	ND	89.9	30-120	21.9	30	
Heptachlor	94.8	5.0	"	100	ND	94.8	30-120	0.189	30	
Aldrin	77.2	5.0	"	100	ND	77.2	30-120	2.92	30	
Dieldrin	70.1	5.0	"	100	ND	70.1	30-120	15.0	30	
Endrin	92.0	5.0	"	100	ND	92.0	30-120	37.8	30	QR-02
4,4´-DDT	60.5	5.0	"	100	ND	60.5	30-120	29.6	30	
Surrogate: Tetrachloro-meta-xylene	*8.16*		*"*	*10.0*		*81.6*	*35-140*			

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

SunStar Laboratories, Inc.
25712 Commercentre Dr
Lake Forest, CA 92630
949-297-5020

Chain of Custody Record

Client: McALISTER GEOSCIENCE
Address: 1724 E. 1ST #1 LONG BEACH, CA 90802
Phone: 714) 423-3796 Fax:
Project Manager: D. McALISTER

Date: 1-12-14 Page: 1 Of 3
Project Name: LANCASTER
Collector: D. McALISTER / R. SUEN Client Project #:
Batch #: T140064 EDF #:

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	8081 OCP	6010 ARSENIC ONLY			Laboratory ID #	Comments/Preservative	Total # of containers
I/120 B1	1-12-14	1337	SOIL	4oz JAR										X	X			01		1
I/120 B2		1343																02		
I/120 B3		1350																03		
I/120 B4		1406																04		
I/120 B5		1420																05		
I/120 B6		1425													X			06		
I/120 B7		1430																07		
I/120 B8		1426																08		
J/90 B1		1145																09		
J/90 B2		1200																10		
J/90 B3		1212													X			11		
J/90 B4		1223																12		
J/90 B5		1234																13		
J/90 B6		1248																14		
J/90 B7		1254																15		

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
[signature]	1-13-14 1100	[signature]	1/13/14 1108
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time

Total # of containers	15
Chain of Custody seals Y/N/NA	N
Seals intact? Y/N/NA	N/A
Received good condition/cold	Y 5.8°

Turn around time: STD

Notes

Sample disposal Instructions: Disposal @ $2.00 each ____ Return to client ____ Pickup ____

COC 133572

SunStar Laboratories, Inc.
25712 Commercentre Dr
Lake Forest, CA 92630
949-297-5020

Chain of Custody Record

Client: MCALISTER GEOSCIENCE
Address: 1724 E. 1ST #1 LONG BEACH, CA 90802
Phone: 714) 423-3796 Fax:
Project Manager: D. MCALISTER

Date: 1-12-14 Page: 2 Of 3
Project Name: LANCASTER
Collector: D. MCALISTER/R. SUEN Client Project #:
Batch #: T140064 EDF #:

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	8081 OCP	6010 ARSENIC ONLY			Laboratory ID #	Comments/Preservative	Total # of containers
J/90B8	1-12-14	1305	SOIL	4oz JAR										X	X			16		1
G/70B1		1240																17		
G/70B2		1245																18		
G/70B3		1250																19		
G/70B4		1255																20		
G/70B5		1300													X			21		
G/70B6		1305																22		
G/70B7		1310																23		
G/70B8		1315																24		
B/110B1		1015																25		
B/110B2		1020													X			26		
B/110B3		1025																27		
B/110B4		1030																28		
B/110B5		1050																29		
B/110B6		1100																30		

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
[signature]	1-13-14 1100	[signature]	1/13/14 1108
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time

Total # of containers	15
Chain of Custody seals Y/N/NA	N
Seals intact? Y/N/NA	N/A
Received good condition/cold	Y

Notes: 5.8°

Turn around time: STD

Sample disposal Instructions: Disposal @ $2.00 each ____ Return to client ____ Pickup ____

COC 133573

SunStar Laboratories, Inc.
25712 Commercentre Dr
Lake Forest, CA 92630
949-297-5020

Chain of Custody Record

Client: McALISTER GEOSCIENCE
Address: 1724 E. 1ST #1 LONG BEACH, CA 90802
Phone: 714) 423-3796 Fax:
Project Manager: D. McALISTER

Date: 1-12-14 Page: 3 Of 3
Project Name: LANCASTER
Collector: D. McALISTER/R. SUEN Client Project #:
Batch #: T140064 EDF #:

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	OCP 8081	6010 ARSENIC ONLY			Laboratory ID #	Comments/Preservative	Total # of containers
B/110 B7	1-12-14	1110	SOIL	4oz JAR										X	X			31		1
B/110 B8		1115																32		
D/35 B1		1140																33		
D/35 B2		1150																34		
D/35 B3		1155																35		
D/35 B4		1200													X			36		
D/35 B5		1210																37		
D/35 B6		1215																38		
D/35 B7		1220																39		
D/35 B8		1225																40		

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
[signature]	1-13-14 1100	[signature]	1/13/14 1108
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time

Total # of containers	10
Chain of Custody seals Y/N/NA	N
Seals intact? Y/N/NA	N/A
Received good condition/cold	Y 5.8°

Notes

Turn around time: STD

Sample disposal Instructions: Disposal @ $2.00 each ____ Return to client ____ Pickup ____

COC 132192

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

SAMPLE RECEIVING REVIEW SHEET

BATCH # T140064

Client Name: McAlister Geoscience Project: Lancaster

Received by: Dan M. Date/Time Received: 1/13/14 1108

Delivered by : ☐ Client ☒ SunStar Courier ☐ GSO ☐ FedEx ☐ Other _____

Total number of coolers received 1 **Temp criteria = 6°C > 0°C (no frozen containers)**

Temperature: cooler #1 6.0 °C +/- the CF (- 0.2°C) = 5.8 °C corrected temperature

cooler #2 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

cooler #3 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.	☒ Yes	☐ No*	☐ N/A
Custody Seals Intact on Cooler/Sample	☐ Yes	☐ No*	☒ N/A
Sample Containers Intact	☒ Yes	☐ No*	
Sample labels match COC ID's	☒ Yes	☐ No*	
Total number of containers received match COC	☒ Yes	☐ No*	
Proper containers received for analyses requested on COC	☒ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times. ☒ **Yes** ☐ **No***

* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date DM 1/13/14

Comments:

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McAlister
GeoScience
1724 E. 1st Street #1 Long Beach, California 90802 (714) 423-3796

January 29, 2014

FTP Power
2 Embarcadero Center, Suite 410
San Francisco, California 94111

Attention: Ryan Galeria, Project Manager

Subject: Phase II Soil Sampling Environmental Site Assessment
Approximately 256 acres of land at the northeast corner of West Avenue J and 90th Street West, Lancaster, California

Dear Mr. Galeria:

Attached is one electronic copy of the report on the Soil Sampling performed at the property comprised of approximately 256 acres of land at the northeast corner of West Avenue J and 90th Street West located west of Lancaster, County of Los Angeles, California (the Subject Property).

Please call me should you have any questions about the report.

Sincerely,

David McAlister

Phase II Environmental Site Assessment
Soil Sampling Report

Approximately 256 Acres
northeast corner of West Avenue J and 90th Street West
west of Lancaster, Los Angeles County, California

January 29, 2014

Prepared for:

FTP Solar, LLC
2 Embarcadero Center, Suite 410
San Francisco, California 94104

Prepared by:

McAlister GeoScience
1724 East 1st Street #1
Long Beach, California 90802

David McAlister

EXECUTIVE SUMMARY

McAlister GeoScience was retained by FTP Solar, LLC (the Client) to conduct a Phase II Environmental Site Assessment (ESA) consisting of soil sampling of the property comprised of approximately 256 acres of land at the northeast corner of West Avenue J and 90th Street West (the Subject Property). The location of the Property is shown on Figure 1.

The purpose of this soil sampling and analysis project is to document the nature and extent of potential organochloride and arsenic-based pesticides associated with the former use of the Subject Property for agricultural purposes.

Eight soil samples were collected between three and six inches below the surface at various locations at the Subject Property. Soil sample locations are identified on Figure 2.

Field observations of the soil samples collected from the eight borings advanced at the Subject Property did not exhibit odors, staining, or stressed vegetation indicating impacted soil.

All eight samples were analyzed for organochloride pesticides and two samples (J/90B3 & J/90B8) was analyzed for arsenic. Organochloride pesticides were not present in the soil samples collected above the laboratory detection limits. Arsenic was not detected above the laboratory detection limit of 5.0 mg/Kg in soil samples J/90B3 & J/90B8 collected in the east & west most corners of the Subject Property respectively. The California Human Health Screening Level for arsenic is 0.24 mg/Kg and below the laboratory detection limit; however average naturally-occurring concentrations of arsenic in benchmark California soils is 3.5 mg/Kg and the maximum naturally-occurring concentrations of arsenic in benchmark California soils is 11.0 mg/Kg.

The results of this investigation have determined that soil at the Subject Property is not impacted with organochloride and arsenic-based pesticides associated with the former use of the Subject Property for agricultural purposes.

No additional investigation or further actions are necessary or warranted at this time.

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Figure 1 Site Location Map
Figure 2 Sampling Locations

Appendix

Appendix A Laboratory Analytical and Chain of Custody Forms

1.0 INTRODUCTION

McAlister GeoScience was retained by FTP Solar, LLC (the Client) to conduct a Phase II Environmental Site Assessment (ESA) consisting of soil sampling of the property comprised of approximately 256 acres of land at the northeast corner of West Avenue J and 90th Street West (the Subject Property). The location of the Property is shown on Figure 1.

This project was conducted pursuant to authorization of the scope of work, estimated costs and schedule, and terms and conditions outlined in the proposal dated November 18, 2013 and in general accordance with the scope of work and limitations of the American Society of Testing and Materials (ASTM) Standard Guide for Soil Sampling from the Vadose Zone, Designation D4700-91(2006) and the ASTM Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process, Designation E1903-11.

1.1 Purpose

The purpose of this soil sampling and analysis project is to document the nature and extent of potential organochloride and arsenic-based pesticides associated with the former use of the Subject Property for agricultural purposes.

1.2 Limitations and Exceptions of Assessment

The property assessment described in this report should not be construed as a complete characterization of environmental regulatory compliance or of above and below ground environmental conditions. McAlister GeoScience utilized standard data collection techniques while completing the work; however, a comprehensive characterization of all sub-surface conditions is neither appropriate nor feasible. Therefore, reliance by the Client on the information presented in this report shall be consistent with the limitations expressed herein, and subject to the project scope of work and terms of the contract between McAlister GeoScience and the Client.

The services provided were in accordance with the standard of care and skill ordinarily exercised by members of the profession currently participating in the same locality under similar conditions. No other representation, expressed or implied, and no warranty or guarantee is included or intended in this report.

2.0 BACKGROUND

2.1 Site Description and Features

The Subject Property consists of undeveloped land with one suspected groundwater well in the north portion of the property. The suspected well had two associated irrigation pipes in the immediate vicinity. An abandoned and dry irrigation reservoir was found in the northwestern corner of the property with three associated irrigation pipes running east from the reservoir. Additionally, an abandoned residential structure and two sheds were found at the southern portion of the property. Site features are identified on Figure 2.

2.2 Previous Investigations

Historic aerial photographs reviewed for the development of the Phase I ESA by McAlister GeoScience indicate that the southern portion of the Subject Property has been developed for agricultural purposes such as row crops in the late 1940s and early 1970s. The central portion of the southern property boundary featured one residential structure, two sheds, and several trees. Aerial photographs from the late 1980s show the Subject Property to be undeveloped outside of the aforementioned structures, as observed during the site reconnaissance.

2.3 Pre-Field Preparation

Prior to conducting field activities, a project-specific health and safety plan (HASP) was developed outlining the various hazards associated with the proposed scope of work. The HASP was developed to cover risks of exposure to potential contaminants as well as biological hazards and physical hazards associated with the performance of the work and the equipment used to complete the work. Additional pre-field activities included coordination with the laboratory and other tasks necessary to ensure a seamless and problem-free field mobilization.

3.0 SAMPLING ACTIVITIES

3.1 Scope of Assessment

A total eight soil samples were collected from various locations across the Subject Property and submitted to a State of California certified laboratory for analysis.

3.2 Field Explorations and Methods

A total eight soil samples were collected utilizing a hand-held spade. Soils encountered were described for the texture, structure, color, and any staining, discoloration, and / or odors were noted in the field notes. Soil sample locations are identified on Figure 2.

Soil samples were packaged in four-ounce glass jars. Samples were labeled and transmitted to SunStar Laboratories, an environmental laboratory certified by the State of California utilizing a chain of custody and an ice chest packed with ice as a preservative.

3.3 Laboratory Analysis Methods

The laboratory was requested to analyze the soil samples collected for organochloride pesticides by Environmental Protection Agency (EPA) Method 8081. Two samples (J/90B3 & J/90B8) were analyzed for arsenic by EPA Method 6010.

4.0 RESULTS AND CONCLUSIONS

4.1 Results

A total eight soil samples were collected from various locations across the Subject Property. Soil sample locations are identified on Figure 2. Field observations of the soil samples collected from the eight borings advanced at the Subject Property did not exhibit odors, staining, or stressed vegetation indicating impacted soil.

4.2 Conclusions

All eight samples were analyzed for organochloride pesticides and two samples (J/90B3 & J/90B8) was analyzed for arsenic. Organochloride pesticides were not present in the soil samples collected above the laboratory detection limits. Arsenic was not detected above the laboratory detection limit of 5.0 mg/Kg in soil samples J/90B3 & J/90B8 collected in the east & west most corners of the Subject Property respectively. The California Human Health Screening Level for arsenic is 0.24 mg/Kg and below the laboratory detection limit; however average naturally-occurring concentrations of arsenic in benchmark California soils is 3.5 mg/Kg and the maximum naturally-occurring concentrations of arsenic in benchmark California soils is 11.0 mg/Kg. Laboratory analytical and chain of custody forms are included in Appendix A.

The soil sampling and analysis detailed herein was conducted for the purpose of documenting the nature and extent of potential soil impacts associated with the former use of the Subject Property as for agricultural purposes. The results of this investigation have determined that soil at the Subject Property is not impacted with organochloride and arsenic-based pesticides associated with the former use of the Subject Property for agricultural purposes.

No additional investigation or further actions are necessary or warranted at this time.

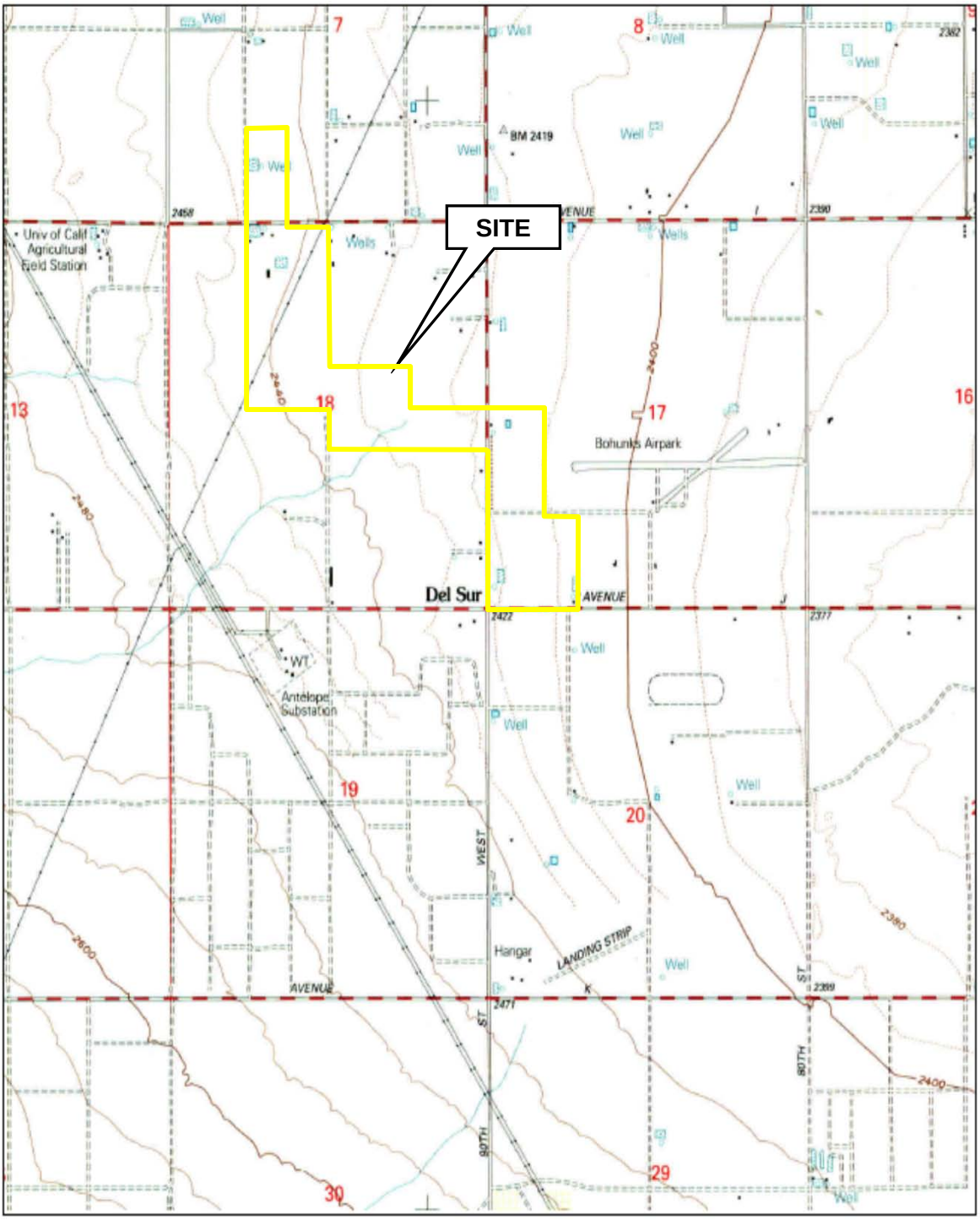
5.0 REFERENCES

American Society for Testing and Materials (ASTM) 2006. Practice D4700-91(2006) Standard Guide for Soil Sampling from the Vadose Zone.

American Society for Testing and Materials (ASTM) 2011. Practice E1903-11 Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process.

McAlister GeoScience. Phase I Environmental Site Assessment Report, Approximately 256 Acres Northeast corner of West Avenue J and 90th Street West. West of Lancaster, Los Angeles County, California.

Figures

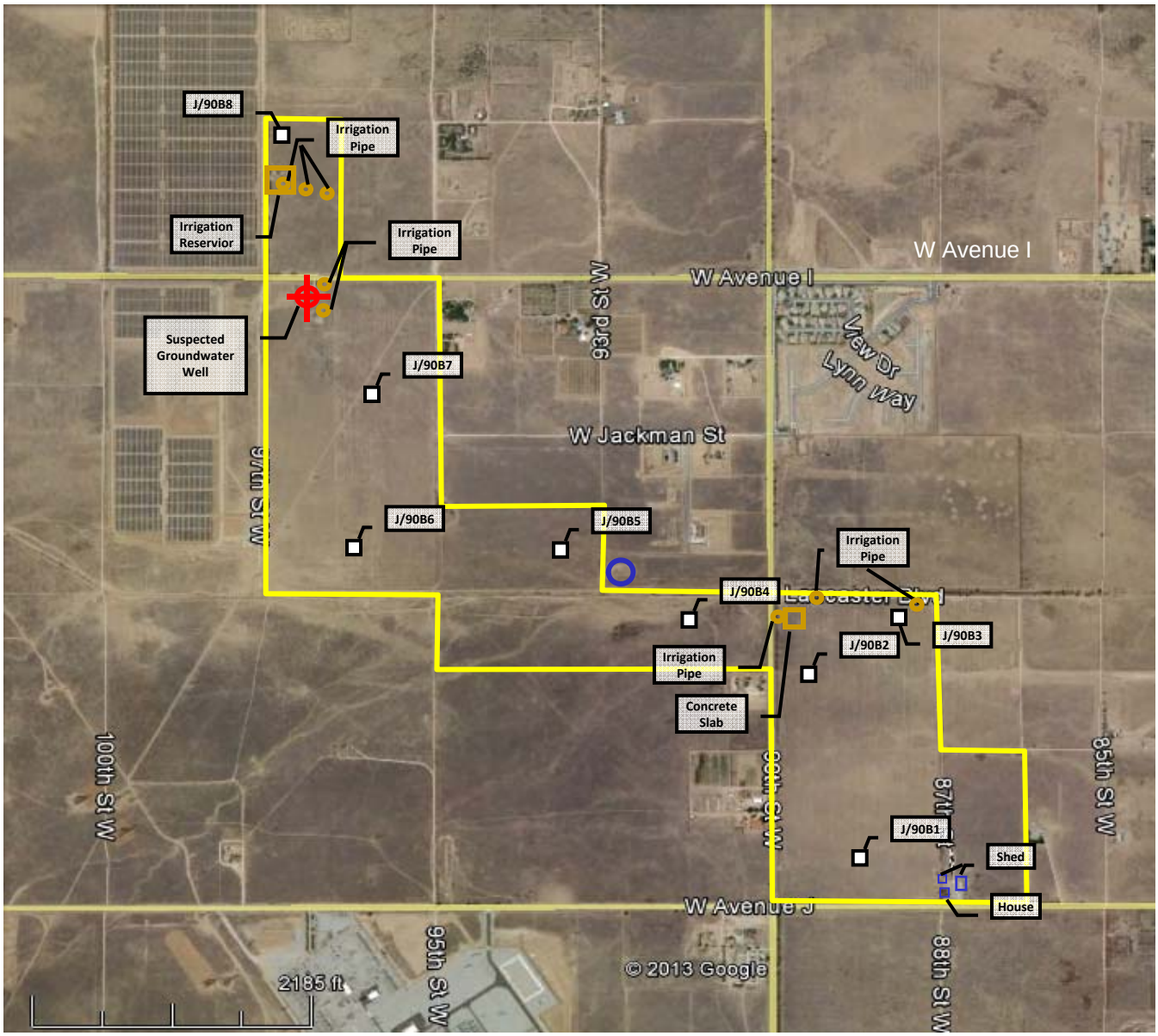


SOURCE: EDR Historical Topographical Map Report 1995

N

7.5 minute Orthophoto Quad.

TITLE:	**Site Location Map**	
LOCATION:	**256 Acres of Undeveloped Land at W. Ave. J & 90th St. Lancaster, California**	
CHECKED:	D.McAlister	**FIGURE:**
DRAFTED:		**1**
FILE:		
DATE:	01-10-2014	



SOURCE: *Google Earth, 2014*

Legend:

Groundwater Supply Well

Aboveground Storage Tanks

N

TITLE:	**Sampling Locations**		
LOCATION:	**256 Acres of Undeveloped Land at W. Ave. J & 90th St. Lancaster, California**		
	CHECKED:	D.McAlister	**FIGURE:**
	DRAFTED:		**2**
	FILE:		
	DATE:	01-10-2014	

Appendix A

Laboratory Analytical and Chain of Custody Forms

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

20 January 2014

Dave Mcalister
Mcalister Geoscience
1724 East 1st #1
Long Beach, CA 90802
RE: Lancaster

Enclosed are the results of analyses for samples received by the laboratory on 01/13/14 11:08. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Katherine RunningCrane

Katherine RunningCrane
Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
I/120 B1	T140064-01	Soil	01/12/14 13:37	01/13/14 11:08
I/120 B2	T140064-02	Soil	01/12/14 13:43	01/13/14 11:08
I/120 B3	T140064-03	Soil	01/12/14 13:50	01/13/14 11:08
I/120 B4	T140064-04	Soil	01/12/14 14:06	01/13/14 11:08
I/120 B5	T140064-05	Soil	01/12/14 14:20	01/13/14 11:08
I/120 B6	T140064-06	Soil	01/12/14 14:25	01/13/14 11:08
I/120 B7	T140064-07	Soil	01/12/14 14:30	01/13/14 11:08
I/120 B8	T140064-08	Soil	01/12/14 14:26	01/13/14 11:08
J/90 B1	T140064-09	Soil	01/12/14 11:45	01/13/14 11:08
J/90 B2	T140064-10	Soil	01/12/14 12:00	01/13/14 11:08
J/90 B3	T140064-11	Soil	01/12/14 12:12	01/13/14 11:08
J/90 B4	T140064-12	Soil	01/12/14 12:23	01/13/14 11:08
J/90 B5	T140064-13	Soil	01/12/14 12:34	01/13/14 11:08
J/90 B6	T140064-14	Soil	01/12/14 12:48	01/13/14 11:08
J/90 B7	T140064-15	Soil	01/12/14 12:54	01/13/14 11:08
J/90 B8	T140064-16	Soil	01/12/14 13:05	01/13/14 11:08
G/70 B1	T140064-17	Soil	01/12/14 12:40	01/13/14 11:08
G/70 B2	T140064-18	Soil	01/12/14 12:45	01/13/14 11:08
G/70 B3	T140064-19	Soil	01/12/14 12:50	01/13/14 11:08
G/70 B4	T140064-20	Soil	01/12/14 12:55	01/13/14 11:08
G/70 B5	T140064-21	Soil	01/12/14 13:00	01/13/14 11:08
G/70 B6	T140064-22	Soil	01/12/14 13:05	01/13/14 11:08
G/70 B7	T140064-23	Soil	01/12/14 13:10	01/13/14 11:08
G/70 B8	T140064-24	Soil	01/12/14 13:15	01/13/14 11:08
B/110 B1	T140064-25	Soil	01/12/14 10:15	01/13/14 11:08
B/110 B2	T140064-26	Soil	01/12/14 10:20	01/13/14 11:08

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager

SunStar Laboratories, Inc.
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Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B/110 B3	T140064-27	Soil	01/12/14 10:25	01/13/14 11:08
B/110 B4	T140064-28	Soil	01/12/14 10:30	01/13/14 11:08
B/110 B5	T140064-29	Soil	01/12/14 10:50	01/13/14 11:08
B/110 B6	T140064-30	Soil	01/12/14 11:00	01/13/14 11:08
B/110 B7	T140064-31	Soil	01/12/14 11:10	01/13/14 11:08
B/110 B8	T140064-32	Soil	01/12/14 11:15	01/13/14 11:08
D/35 B1	T140064-33	Soil	01/12/14 11:40	01/13/14 11:08
D/35 B2	T140064-34	Soil	01/12/14 11:50	01/13/14 11:08
D/35 B3	T140064-35	Soil	01/12/14 11:55	01/13/14 11:08
D/35 B4	T140064-36	Soil	01/12/14 12:00	01/13/14 11:08
D/35 B5	T140064-37	Soil	01/12/14 12:10	01/13/14 11:08
D/35 B6	T140064-38	Soil	01/12/14 12:15	01/13/14 11:08
D/35 B7	T140064-39	Soil	01/12/14 12:20	01/13/14 11:08
D/35 B8	T140064-40	Soil	01/12/14 12:25	01/13/14 11:08

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

I/120 B1

T140064-01 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.8 %*	*35-140*		*"*	*"*	*"*	*"*	

SunStar Laboratories, Inc.
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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

I/120 B2

T140064-02 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.0 %*	*35-140*		*"*	*"*	*"*	*"*	

SunStar Laboratories, Inc.
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949.297.5027 Fax

Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

I/120 B3

T140064-03 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*97.2 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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Lake Forest, California 92630
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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

I/120 B4

T140064-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*35-140*		*"*	*"*	*"*	*"*	

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

I/120 B5

T140064-05 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*35-140*		*"*	*"*	*"*	*"*	

SunStar Laboratories, Inc.
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25712 Commercentre Drive
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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

I/120 B6

T140064-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*35-140*		*"*	*"*	*"*	*"*	

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

I/120 B7

T140064-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*114 %*	*35-140*		*"*	*"*	*"*	*"*	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

I/120 B8

T140064-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

J/90 B1

T140064-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*110 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

J/90 B2

T140064-10 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.1 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

J/90 B3

T140064-11 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*77.3 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

J/90 B4

T140064-12 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.6 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

J/90 B5

T140064-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

J/90 B6

T140064-14 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.7 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

J/90 B7

T140064-15 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

J/90 B8

T140064-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.7 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B1

T140064-17 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*97.5 %*	*35-140*		*"*	*"*	*"*	*"*	

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949.297.5027 Fax

Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B2

T140064-18 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B3

T140064-19 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*107 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B4

T140064-20 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011325	01/13/14	01/17/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B5

T140064-21 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B6

T140064-22 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.7 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B7

T140064-23 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.8 %*	*35-140*		*"*	*"*	*"*	*"*	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

G/70 B8

T140064-24 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

B/110 B1

T140064-25 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.9 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

B/110 B2

T140064-26 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	**8.2**	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**230**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	**27**	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*74.5 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

B/110 B3

T140064-27 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**79**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	**17**	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*78.7 %*	*35-140*		"	"	"	"	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

B/110 B4

T140064-28 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**40**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.5 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

B/110 B5

T140064-29 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.4 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

B/110 B6

T140064-30 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**31**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*115 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

B/110 B7

T140064-31 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	**7.6**	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*110 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

B/110 B8

T140064-32 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*89.7 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

D/35 B1

T140064-33 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.5 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

D/35 B2

T140064-34 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*89.2 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

D/35 B3

T140064-35 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.8 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

D/35 B4

T140064-36 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 6010B									
Arsenic	ND	5.0	mg/kg	1	4011322	01/13/14	01/14/14	EPA 6010B	
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*75.9 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

D/35 B5

T140064-37 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.3 %*	*35-140*		*"*	*"*	*"*	*"*	

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

D/35 B6

T140064-38 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.7 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

D/35 B7

T140064-39 (Soil)

SunStar Laboratories, Inc.

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*82.2 %*	*35-140*		*"*	*"*	*"*	*"*	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Lake Forest, California 92630
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949.297.5027 Fax

Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

D/35 B8

T140064-40 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	4011324	01/13/14	01/18/14	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*35-140*		*"*	*"*	*"*	*"*	

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4011322 - EPA 3051										
Blank (4011322-BLK1)				Prepared: 01/13/14		Analyzed: 01/14/14				
Arsenic	ND	5.0	mg/kg							
LCS (4011322-BS1)				Prepared: 01/13/14		Analyzed: 01/14/14				
Arsenic	109	5.0	mg/kg	100		109	75-125			
Matrix Spike (4011322-MS1)		**Source: T140064-01**		Prepared: 01/13/14		Analyzed: 01/14/14				
Arsenic	95.4	5.0	mg/kg	100	ND	95.4	75-125			
Matrix Spike Dup (4011322-MSD1)		**Source: T140064-01**		Prepared: 01/13/14		Analyzed: 01/14/14				
Arsenic	90.1	5.0	mg/kg	100	ND	90.1	75-125	5.72	20	

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4011324 - EPA 3550 ECD/GCMS										
Blank (4011324-BLK1)				Prepared: 01/13/14 Analyzed: 01/18/14						
alpha-BHC	ND	5.0	ug/kg							
gamma-BHC (Lindane)	ND	5.0	"							
beta-BHC	ND	5.0	"							
delta-BHC	ND	5.0	"							
Heptachlor	ND	5.0	"							
Aldrin	ND	5.0	"							
Heptachlor epoxide	ND	5.0	"							
gamma-Chlordane	ND	5.0	"							
alpha-Chlordane	ND	5.0	"							
Endosulfan I	ND	5.0	"							
4,4´-DDE	ND	5.0	"							
Dieldrin	ND	5.0	"							
Endrin	ND	5.0	"							
4,4´-DDD	ND	5.0	"							
Endosulfan II	ND	5.0	"							
4,4´-DDT	ND	5.0	"							
Endrin aldehyde	ND	5.0	"							
Endosulfan sulfate	ND	5.0	"							
Methoxychlor	ND	10	"							
Endrin ketone	ND	5.0	"							
Toxaphene	ND	200	"							
Surrogate: Tetrachloro-meta-xylene	*9.67*		*"*	*10.0*		*96.7*	*35-140*			
LCS (4011324-BS1)				Prepared: 01/13/14 Analyzed: 01/18/14						
gamma-BHC (Lindane)	79.4	5.0	ug/kg	100		79.4	40-120			
Heptachlor	101	5.0	"	100		101	40-120			
Aldrin	86.1	5.0	"	100		86.1	40-120			
Dieldrin	93.0	5.0	"	100		93.0	40-120			
Endrin	64.7	5.0	"	100		64.7	40-120			
4,4´-DDT	91.0	5.0	"	100		91.0	33-147			
Surrogate: Tetrachloro-meta-xylene	*8.31*		*"*	*10.0*		*83.1*	*35-140*			

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4011324 - EPA 3550 ECD/GCMS										
Matrix Spike (4011324-MS1)		**Source: T140064-21**		Prepared: 01/13/14	Analyzed: 01/18/14					
gamma-BHC (Lindane)	92.7	5.0	ug/kg	100	ND	92.7	30-120			
Heptachlor	87.7	5.0	"	100	ND	87.7	30-120			
Aldrin	92.4	5.0	"	100	ND	92.4	30-120			
Dieldrin	101	5.0	"	100	ND	101	30-120			
Endrin	78.0	5.0	"	100	ND	78.0	30-120			
4,4´-DDT	99.4	5.0	"	100	ND	99.4	30-120			
Surrogate: Tetrachloro-meta-xylene	*10.0*		*"*	*10.0*		*100*	*35-140*			
Matrix Spike Dup (4011324-MSD1)		**Source: T140064-21**		Prepared: 01/13/14	Analyzed: 01/18/14					
gamma-BHC (Lindane)	86.5	5.0	ug/kg	100	ND	86.5	30-120	6.95	30	
Heptachlor	83.9	5.0	"	100	ND	83.9	30-120	4.45	30	
Aldrin	92.2	5.0	"	100	ND	92.2	30-120	0.262	30	
Dieldrin	92.6	5.0	"	100	ND	92.6	30-120	8.25	30	
Endrin	72.6	5.0	"	100	ND	72.6	30-120	7.16	30	
4,4´-DDT	80.2	5.0	"	100	ND	80.2	30-120	21.4	30	
Surrogate: Tetrachloro-meta-xylene	*9.45*		*"*	*10.0*		*94.5*	*35-140*			
Batch 4011325 - EPA 3550 ECD/GCMS										
Blank (4011325-BLK1)				Prepared: 01/13/14	Analyzed: 01/17/14					
alpha-BHC	ND	5.0	ug/kg							
gamma-BHC (Lindane)	ND	5.0	"							
beta-BHC	ND	5.0	"							
delta-BHC	ND	5.0	"							
Heptachlor	ND	5.0	"							
Aldrin	ND	5.0	"							
Heptachlor epoxide	ND	5.0	"							
gamma-Chlordane	ND	5.0	"							
alpha-Chlordane	ND	5.0	"							
Endosulfan I	ND	5.0	"							
4,4´-DDE	ND	5.0	"							
Dieldrin	ND	5.0	"							
Endrin	ND	5.0	"							
4,4´-DDD	ND	5.0	"							
Endosulfan II	ND	5.0	"							
4,4´-DDT	ND	5.0	"							

SunStar Laboratories, Inc.

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Mcalister Geoscience	Project: Lancaster	
1724 East 1st #1	Project Number: [none]	**Reported:**
Long Beach CA, 90802	Project Manager: Dave Mcalister	01/20/14 16:20

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4011325 - EPA 3550 ECD/GCMS										
Blank (4011325-BLK1)				Prepared: 01/13/14		Analyzed: 01/17/14				
Endrin aldehyde	ND	5.0	ug/kg							
Endosulfan sulfate	ND	5.0	"							
Methoxychlor	ND	10	"							
Endrin ketone	ND	5.0	"							
Toxaphene	ND	200	"							
Surrogate: Tetrachloro-meta-xylene	*10.1*		*"*	*10.0*		*101*	*35-140*			
LCS (4011325-BS1)				Prepared: 01/13/14		Analyzed: 01/17/14				
gamma-BHC (Lindane)	85.8	5.0	ug/kg	100		85.8	40-120			
Heptachlor	99.4	5.0	"	100		99.4	40-120			
Aldrin	94.8	5.0	"	100		94.8	40-120			
Dieldrin	97.3	5.0	"	100		97.3	40-120			
Endrin	70.1	5.0	"	100		70.1	40-120			
4,4´-DDT	100	5.0	"	100		100	33-147			
Surrogate: Tetrachloro-meta-xylene	*8.93*		*"*	*10.0*		*89.3*	*35-140*			
Matrix Spike (4011325-MS1)		**Source: T140064-01**		Prepared: 01/13/14		Analyzed: 01/17/14				
gamma-BHC (Lindane)	72.2	5.0	ug/kg	100	ND	72.2	30-120			
Heptachlor	94.6	5.0	"	100	ND	94.6	30-120			
Aldrin	79.5	5.0	"	100	ND	79.5	30-120			
Dieldrin	81.4	5.0	"	100	ND	81.4	30-120			
Endrin	62.7	5.0	"	100	ND	62.7	30-120			
4,4´-DDT	81.5	5.0	"	100	ND	81.5	30-120			
Surrogate: Tetrachloro-meta-xylene	*7.42*		*"*	*10.0*		*74.2*	*35-140*			
Matrix Spike Dup (4011325-MSD1)		**Source: T140064-01**		Prepared: 01/13/14		Analyzed: 01/17/14				
gamma-BHC (Lindane)	89.9	5.0	ug/kg	100	ND	89.9	30-120	21.9	30	
Heptachlor	94.8	5.0	"	100	ND	94.8	30-120	0.189	30	
Aldrin	77.2	5.0	"	100	ND	77.2	30-120	2.92	30	
Dieldrin	70.1	5.0	"	100	ND	70.1	30-120	15.0	30	
Endrin	92.0	5.0	"	100	ND	92.0	30-120	37.8	30	QR-02
4,4´-DDT	60.5	5.0	"	100	ND	60.5	30-120	29.6	30	
Surrogate: Tetrachloro-meta-xylene	*8.16*		*"*	*10.0*		*81.6*	*35-140*			

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Katherine RunningCrane

Katherine RunningCrane, Project Manager

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Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Mcalister Geoscience	Project:	Lancaster	
1724 East 1st #1	Project Number:	[none]	**Reported:**
Long Beach CA, 90802	Project Manager:	Dave Mcalister	01/20/14 16:20

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

SunStar Laboratories, Inc.
25712 Commercentre Dr
Lake Forest, CA 92630
949-297-5020

Chain of Custody Record

Client: McALISTER GEOSCIENCE
Address: 1724 E. 1ST #1 LONG BEACH, CA 90802
Phone: 714) 423-3796 Fax:
Project Manager: D. McALISTER

Date: 1-12-14 Page: 1 Of 3
Project Name: LANCASTER
Collector: D. McALISTER / R. SUEN Client Project #:
Batch #: T140064 EDF #:

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	8081 OCP	6010 ARSENIC ONLY			Laboratory ID #	Comments/Preservative	Total # of containers
I/120 B1	1-12-14	1337	SOIL	4oz JAR										X	X			01		1
I/120 B2		1343																02		
I/120 B3		1350																03		
I/120 B4		1406																04		
I/120 B5		1420																05		
I/120 B6		1425													X			06		
I/120 B7		1430																07		
I/120 B8		1426																08		
J/90 B1		1145																09		
J/90 B2		1200																10		
J/90 B3		1212													X			11		
J/90 B4		1223																12		
J/90 B5		1234																13		
J/90 B6		1248																14		
J/90 B7		1254																15		

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
[signature]	1-13-14 1100	[signature]	1/13/14 1108
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time

Total # of containers	15
Chain of Custody seals Y/N/NA	N
Seals intact? Y/N/NA	N/A
Received good condition/cold	Y 5.8°

Turn around time: STD

Notes

Sample disposal Instructions: Disposal @ $2.00 each ____ Return to client ____ Pickup ____

COC 133572

SunStar Laboratories, Inc.
25712 Commercentre Dr
Lake Forest, CA 92630
949-297-5020

Chain of Custody Record

Client: MCALISTER GEOSCIENCE
Address: 1724 E. 1ST #1 LONG BEACH, CA 90802
Phone: 714) 423-3796 Fax:
Project Manager: D. MCALISTER

Date: 1-12-14 Page: 2 Of 3
Project Name: LANCASTER
Collector: D. MCALISTER/R. SUEN Client Project #:
Batch #: T140064 EDF #:

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	8081 OCP	6010 ARSENIC ONLY			Laboratory ID #	Comments/Preservative	Total # of containers
J/90B8	1-12-14	1305	SOIL	4oz JAR										X	X			16		1
G/70B1		1240																17		
G/70B2		1245																18		
G/70B3		1250																19		
G/70B4		1255																20		
G/70B5		1300													X			21		
G/70B6		1305																22		
G/70B7		1310																23		
G/70B8		1315																24		
B/110B1		1015																25		
B/110B2		1020													X			26		
B/110B3		1025																27		
B/110B4		1030																28		
B/110B5		1050																29		
B/110B6		1100																30		

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
[signature]	1-13-14 1100	[signature]	1/13/14 1108
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time

Total # of containers	15
Chain of Custody seals Y/N/NA	N
Seals intact? Y/N/NA	N/A
Received good condition/cold	Y

Notes: 5.8°

Turn around time: STD

Sample disposal Instructions: Disposal @ $2.00 each ____ Return to client ____ Pickup ____

COC 133573

SunStar Laboratories, Inc.
25712 Commercentre Dr
Lake Forest, CA 92630
949-297-5020

Chain of Custody Record

Client: McALISTER GEOSCIENCE
Address: 1724 E. 1ST #1 LONG BEACH, CA 90802
Phone: 714) 423-3796 Fax:
Project Manager: D. McALISTER

Date: 1-12-14 Page: 3 Of 3
Project Name: LANCASTER
Collector: D. McALISTER/R. SUEN Client Project #:
Batch #: T140064 EDF #:

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	OCP 8081	6010 ARSENIC ONLY			Laboratory ID #	Comments/Preservative	Total # of containers
B/110 B7	1-12-14	1110	SOIL	4oz JAR										X	X			31		1
B/110 B8		1115																32		
D/35 B1		1140																33		
D/35 B2		1150																34		
D/35 B3		1155																35		
D/35 B4		1200													X			36		
D/35 B5		1210																37		
D/35 B6		1215																38		
D/35 B7		1220																39		
D/35 B8		1225																40		

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
[signature]	1-13-14 1100	[signature]	1/13/14 1108
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time

Total # of containers	10
Chain of Custody seals Y/N/NA	N
Seals intact? Y/N/NA	N/A
Received good condition/cold	Y 5.8°

Notes

Turn around time: STD

Sample disposal Instructions: Disposal @ $2.00 each ____ Return to client ____ Pickup ____

COC 132192

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

SAMPLE RECEIVING REVIEW SHEET

BATCH # T140064

Client Name: McAlister Geoscience Project: Lancaster

Received by: Dan M. Date/Time Received: 1/13/14 1108

Delivered by : ☐ Client ☒ SunStar Courier ☐ GSO ☐ FedEx ☐ Other _____

Total number of coolers received 1 **Temp criteria = 6°C > 0°C (no frozen containers)**

Temperature: cooler #1 6.0 °C +/- the CF (- 0.2°C) = 5.8 °C corrected temperature

cooler #2 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

cooler #3 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.	☒ Yes	☐ No*	☐ N/A
Custody Seals Intact on Cooler/Sample	☐ Yes	☐ No*	☒ N/A
Sample Containers Intact	☒ Yes	☐ No*	
Sample labels match COC ID's	☒ Yes	☐ No*	
Total number of containers received match COC	☒ Yes	☐ No*	
Proper containers received for analyses requested on COC	☒ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times. ☒ **Yes** ☐ **No***

* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date DM 1/13/14

Comments:

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7.0 Appendix – CEQA Findings

CEQA Findings for Projects 1 – 6 are provided on the following pages.

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FINDINGS OF FACT REGARDING THE ENVIRONMENTAL IMPACT REPORT

FOR THE SILVERADO POWER WEST LOS ANGELES COUNTY PROJECT

PROJECT SITE NO. 1 (North Lancaster Ranch)

COUNTY PROJECT NO. R2011-00833-(5)

CONDITIONAL USE PERMIT NO. 20110079

ZONE CHANGE NO. 201100005

ENVIRONMENTAL ASSESSMENT NO. 201100109

STATE CLEARINGHOUSE NO. 2012061068

PROJECT FINDINGS ORGANIZATION

Section 1	Introduction
Section 2	Findings Regarding Potential Environmental Effects Which Are Not Significant or Which Have Been Mitigated to a Less than Significant Level
Section 3	Findings Regarding Cumulative Environmental Effects Which are Not Significant or Which Have Been Mitigated to a Less Than Significant Level
Section 4	Findings Regarding Project Alternatives
Section 5	Findings Regarding the Mitigation Monitoring and Reporting Program
Section 6	CEQA Guidelines Section 15091 and 15092 Findings
Section 7	CEQA Guidelines Section 15084(D)(3) and 15084(D)(4) Findings
Section 8	Public Resources Code Section 21082.1(C) Findings
Section 9	Nature of Findings
Section 10	Reliance on Record
Section 11	Relationship of Findings to EIR
Section 12	Custodian of Records
Exhibit A	Mitigation Monitoring and Reporting Program ("MMRP")

SECTION 1.0 INTRODUCTION

The County of Los Angeles ("County") Regional Planning Commission ("Commission") hereby certifies and finds that the Silverado Power West Los Angeles County ("Project") Final Environmental Impact Report ("Final EIR"), State Clearinghouse Number 2012061068, has been completed in compliance with the California Environmental Quality Act (Public Resources Code Sections 21000 et seq., "CEQA") and the State CEQA Guidelines (Title 14, Cal. Code Regs. Sections 15000 et seq., "CEQA Guidelines").

The Project Final EIR consists of the following documents: (1) December 2013 Draft Environmental Impact Report ("Draft EIR" or "DEIR"); (2) December 2013 Technical Appendices to the Draft EIR; and (3) March 2014 Final EIR.

The Commission hereby further certifies that it received, reviewed and considered the information contained in the following: (i) the Final EIR; (ii) the applications for Zone Change No. 201100005 and Conditional Use Permit No. 20110079; and (iii) all hearings, and submissions of testimony from County officials and departments, the Applicant (as defined herein), the public, other public agencies, community groups, and organizations.

Concurrently with the adoption of these findings, the Commission adopts a Mitigation Monitoring and Reporting Program ("MMRP"), attached hereto as Exhibit A. Having received, reviewed and considered the foregoing information, as well as any and all information in the administrative record and the record of proceedings, the Commission hereby makes the following Findings of Fact ("Findings") pursuant to and in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15090:

SECTION 1.1 PROJECT BACKGROUND

1.1.1 Project Location.

The Project site is located in the northern portion of unincorporated Los Angeles County. The EIR analyzed a total of six (6) individual Project sites (collectively, "Projects" or "Projects 1-6"), which will each be subject to separate review and approval by the County.[1]

These Findings specifically pertain to "Project 1", which is approximately 240 acres and located at 110th Street West and West Avenue B, in Lancaster, California (also referred to as "North Lancaster Ranch"). The Assessor's Parcel Numbers ("APNs") for Project 1 are 3262-001-006 and 3262-001-005. When complete, Project 1 would produce 20 megawatts ("MW") of electricity from solar photovoltaic modules.

[1] The six individual Projects are not dependent upon each other for success. Each Project can succeed as a stand-alone project if other projects are not approved by Los Angeles County or if technical or financial problems delay or block the completion of a Project. CEQA allows for a group of projects to be analyzed as a single EIR; each Project must also receive approval of its CUP application and other entitlements on the merits of the individual Project and individual site.

1.1.2 Project Description—Features Common to Projects 1 - 6.

There are certain general Project characteristics and features that will apply to each of the individual six Project sites, including Project 1, as follows:

All six of the Projects would be designed and built using the same or similar methods and would have similar Project characteristics. The Projects would utilize photovoltaic ("PV") technology on fixed-tilt or tracker mounting supports. The proposed PV Projects would be constructed in phases and operated for an estimated 35 years. Construction would generally take place during normal daylight hours and would conform to County construction requirements.

Each Project would consist of the following elements:

- PV modules;
- PV module mounting system;
- Balance of system and electrical boxes (e.g., combiner boxes, electrical disconnects);
- Substation (Projects 1 – 5);
- Electrical inverters and transformers;
- Electrical AC collection system, including switchgear;
- Data monitoring equipment;
- Generation tie line; and
- Access roads and chain link perimeter security fencing.

<u>Solar PV Generating Facilities</u>

The Solar Generating Facilities ("SGFs") are designed for optimum performance and ease of maintenance. The Projects would consist of a series of PV module arrays mounted on racking systems, which are typically supported by a pile-driven foundation design. The foundation design would be determined based on the full geotechnical survey. The module mounting system, or racking system, would have a fixed-tilt or tracker PV array configuration and would be oriented south to maximize the amount of incident solar radiation absorbed over the course of the year. Electricity from a series of PV arrays would be funneled and combined at combiner boxes located throughout the SGF. The electrical current would then be further collected and combined prior to feeding the inverters. The SGF would be laid out in a PV block design to allow adequate area for maintenance in the way of clearances or access roads.

Inverters would be consolidated in areas to minimize cable routing and trenching and ensure minimal electrical losses. The alternating current ("AC") from the inverters would be routed through an AC collection system and consolidated within system switchgear. The final output from the SGF would be processed through a transformer to match the interconnection voltage. Electrical safety and protection systems would be provided to meet utility, International Organization for Standardization, and regulatory codes and standards. The energy would be

delivered to the regional electrical distribution network. A security perimeter fence with appropriate signage for public protection would be installed. Points of ingress/egress would be accessed by locked gates for facility services and maintenance.

Photovoltaic Modules

The SGFs would require installation of PV modules. The total number of PV modules required would depend on the technology selected, optimization evaluation, and detailed design. The market conditions, economic considerations, and the environmental factors would be taken into account during the detail design process. The following PV module technologies or equivalent are being considered for incorporation into the Projects:

- PV thin-film technology
- PV crystalline silicon technology
- Fixed-tilt configuration; and
- Tracking design configuration.

The modules configured with a fixed tilt would be oriented toward the south and angled at a degree that would optimize solar resource efficiency. For the tracking configuration, the modules would rotate from east to west over the course of the day. Modules would be non-reflective and highly absorptive.

Standard Installation, Array Assembly, and Racking

The final racking system would be determined by optimization evaluations and economic assessments and incorporated into the detailed design. Likewise, the final foundation design would be determined based on the geotechnical survey for each of the PV Project locations. Once the foundation has been installed, the module mounting system would be installed on it. For a tracking configuration, motors would be installed to drive the tracking mechanism. The PV modules would be delivered to each site during construction to support the installation schedule. The module mounting system would be oriented in rows within a PV design block, presenting a standard and uniform appearance across the facility. The panel configuration would be uniform in height and width.

Collection, Inverters, AC Collection, and Transformers

Modules would be electrically connected into strings. Each string would be funneled by electrical conduit (typically underground) wiring to combiner boxes located throughout the solar field power blocks. The output power cables from the combiner boxes would be again consolidated and feed the direct current ("DC") electricity to inverters, which convert the DC to AC. Underground electrical cables would be installed using ordinary trenching techniques, which include excavation of trenches to accommodate conduits. Wire depth and trench backfill would be in accordance with local, state, and federal codes.

The AC energy would be stepped up to the appropriate interconnection voltage by system transformers to match the voltage at the grid interconnection. As required, switchgear cabinetry

would be provided where necessary for circuit control. All electrical inverters, transformers, and gear would be placed on concrete foundation structures.

Commissioning of equipment would include testing, calibration of equipment, and troubleshooting. All electrical equipment, inverters, collector system, and PV array systems would be tested prior to commencement of commercial operations.

Substations

For Projects 1, 2, 3, 4, and 5, which require substations, the area for the substations would be appropriately graded and excavated to accommodate transformer equipment, the control building foundation, and oil containment area. Foundations for equipment within each approximately 1-acre substation would be constructed with reinforced concrete.

Structural components in the Project substation area would include:

- Transformers, switchgear, and safety systems; and
- Footings and oil containment system for transformers.

Interconnection Descriptions

Each inverter would be fully enclosed and pad mounted and would be approximately 90 inches in height. The AC output of two inverters would be fed via underground cable into the low-voltage side of the inverter step-up transformer, generally within 20 feet of the inverters. Each transformer would be mounted on a concrete pad and enclosed together with switchgear and a junction box. Transformers are typically 87 inches in height. The high-voltage output of the transformer would be combined in series via underground collector cables to the junction box of the nearest transformer, ranging from as little as 60 feet to as much as 700 feet. The collector system cables would be tied throughout the SGF at underground junction boxes to the main underground collector cables, which would be composed of a larger wire gauge, to the location of the generator step-up transformer ("GSU"), as applicable at each Project location. The main collector cables would rise into the low-voltage busbar and protection equipment that would be enclosed together with the GSU. The primary switchgear includes the main circuit breaker and utility metering equipment, and it would be enclosed separately but pad-mounted together with the GSU. Both the GSU and the primary switchgear would stand approximately 87 inches in height.

The output of the switchgear would be the start of the Project generation tie ("gen-tie") line. The connections from the SGFs to the regional transmission lines are made through the construction of gen-tie lines. Los Angeles County requires that all gen-tie lines be underground except when other applicable regulations require otherwise, and Projects 1 − 6 are each designed in this manner. Each gen-tie line would consist of three phases of either underground or overhead conductor and a disconnect switch. The overhead conductor would be mounted on either wooden or tubular steel poles of varying heights ranging from 55 to 85 feet. Pole height would be determined by the span between poles as defined in the final design for each Project.

Data Collection Systems

Each Project would be designed with a comprehensive Supervisory Control and Data Acquisition ("SCADA") system for remote monitoring of facility operation and/or remote control of critical components. Within the site, the fiber optic or other cabling required for the monitoring system, would be installed with the gathering line system throughout the solar field leading to a centrally located (or series of appropriately located) SCADA system cabinets. The external telecommunications connections to the SCADA system cabinets may be through either wireless or hard-wired telecommunications to a centralized data collection center.

The system would also include a permanent meteorological data collection system. The station would have several weather sensors: a pyranometer for measuring solar irradiance, a thermometer to measure air temperature, a barometric pressure sensor, and two wind sensors to measure speed and direction. These sensors would be connected to a data logger, which would compile the data for transmission to the data collection center.

Construction

Construction for each of the six Project facilities consists of three major phases: (1) site preparation, (2) PV system installation testing and startup, and (3) site cleanup/restoration. Best Management Practices ("BMPs") would be required during all construction phases of the Projects. A Storm Water Pollution Prevention Plan ("SWPPP") incorporating BMPs for erosion control would be prepared and approved before the start of construction. The Projects would also comply with applicable post-construction water quality standards adopted by the Regional Water Quality Control Board ("RWQCB").

PV System Installation

PV system installation includes earthwork, grading, and erosion control, as well as construction of the plant substation and erection of the PV modules, supports, and associated electrical equipment. System installation would begin with teams installing the steel/concrete piers support structures. The exact design would be finalized pending evaluation of soil conditions.

The proposed method of installation would be the use of vibration-driven pile foundations. This step would be followed by panel installation and electrical work. A very limited volume of concrete would be required for the substation footings, foundations, pads for the transformers, and other substation equipment. Silverado Power, LLC ("Applicant") does not propose to use excavated and poured footings or foundations for the PV arrays. Concrete would be produced at an off-site location by a local provider and transported to the Project sites by truck.

The enclosures housing the inverters have a pre-cast concrete base. Final concrete specifications would be determined during detailed design engineering consistent with applicable building codes. The primary site preparation method for the PV modules would be mowing, because the majority of the six sites are very flat with little change in topography. However, there may be a few instances where limited earthwork, including ponding area leveling of less than one foot in depth, and erosion control cultivation may be required to accommodate the placement of PV arrays. Other than required grading for roads, pads, and drainage features, and standard

trenching and installation work, no other earthwork would be performed within the array areas. Erosion control techniques used during construction may include the use of silt fencing, straw bales, temporary catch basins, inlet filters, and truck tire muck shakers. Construction of the PV arrays includes the installation of support beams, module rail assemblies, PV modules, inverters, transformers, and buried electrical cables.

Wastes generated during construction may include the following: cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spools. The Applicant does not expect to generate hazardous waste during construction. However, field equipment used during construction would contain various hazardous materials such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles.

Operations & Maintenance

Upon commissioning, the Projects would enter the operational phase. For the duration of the operational phase, the Projects would be operated and monitored remotely by a third party contractor, with an assumed two on-site visits for security, maintenance, and system monitoring per quarter (total of eight trips per year) by two third party employees in one light duty truck, and two on-site visits by four third party employees for biannual panel washing that includes one light duty truck and one water truck. Therefore the trips would be no more than 10 trips annually for security, maintenance, system monitoring and panel washing. There would be no personnel stationed on-site full time during operations. The PV arrays would produce electricity passively with minimal moving parts; therefore, maintenance requirements would be limited. Any required planned maintenance would be scheduled to avoid peak-load periods, and unplanned maintenance would typically be responded to as needed depending on the event.

Security

To ensure the safety of the public and the facilities, the sites would be fenced and signs would be posted. Security measures would be installed as necessary to mitigate and/or deter unauthorized access. Access to the sites would be controlled and gates would be installed at the roads entering the property.

Decommissioning Plan

A Decommissioning Plan for each of the Projects would be prepared and submitted for approval to Los Angeles County prior to obtaining a grading permit. The plan would assure that the land is protected during operations and returned as closely as possible to its original state upon termination of the use of the land as a SGF. It is unknown at this time if solar energy electricity production would continue to be utilized on this land in excess of 35 years, and thus the future long-term use of the site beyond 35 years is unknown. The life of each facility is presently proposed to be 35 years. The Decommissioning Plan would be implemented in the early summer of the year or year following the time of facility closure thus allowing the site reclamation to be completed outside of the rainy season and before winter begins. In the event that a Project ceases

operations prior to completion of the 35-year estimated life of the Project, applicable provisions of the Decommissioning Plan would commence.

Section 1.1.3 Project Description—Features Unique to Project Site 1

Project 1 (North Lancaster Ranch) would have a generating capacity of 20 MW-AC and would be located on approximately 240 acres of primarily unproductive agricultural land in Los Angeles County. The facility would operate year-round, producing electric power during daytime hours. The power generated by Project 1 would be connected to the existing Southern California Edison ("SCE") 66 kilovolt ("kV") transmission line with the voltage transformation equipment and system safety equipment constructed on the site. For Phases 1 and 2 of Project 1, electricity would be delivered to the existing SCE 66 kV transmission line running north-south along the west side of 110th Street West.

Phase 1 of Project 1 would interconnect via an undergrounded 0.02 mile gen-tie line across 110th Street West originating at the DC collection system within the Project 1 site. Phase 2 of Project 1 would interconnect via an undergrounded 0.54-mile gen-tie line originating at the DC collection system within the Project site.

From the southwest corner of APN 3262-001-006, the gen-tie route would be as follows: 0.02 miles underground across West Avenue B, 0.5 miles underground in the public right-of-way ("ROW") along the south side of West Avenue B, and 0.02 miles underground across 110th Street West. Alternatively, the gen-tie may be placed 0.5 miles underground in the public ROW along the north side of West Avenue B, and 0.02 miles underground across 110th Street West.

Project 1 Telecommunications Lines

The primary telecommunication method is expected to be direct fiber optic cables placed overhead or underground along the path of the gen-tie line within the public ROW or located on private land from the Project 1 site to existing or proposed telecommunication infrastructure. A dedicated broadband connection from a local provider will be secured at the site.

Project 1 Construction

Project 1 would be constructed in two phases. The proposed schedule for Phase 1 is to begin site preparation and construction in the third quarter of 2014 and complete construction within approximately six months. The proposed schedule for Phase 2 is to begin site preparation, including any necessary demolition, and construction in the first quarter of 2015, and complete construction within approximately six months, being commercially operational by the end of the second quarter of 2015. Construction will begin with initial mowing and fine grading for the substation area. The substation area will initially be utilized as the Project staging areas. The staging areas typically include construction offices, a first aid station and other temporary buildings, worker parking, truck loading and unloading facilities, and an area for system assembly.

Subsequent areas to be graded would include internal Project roads and equipment pad locations. The grading acreage for Project 1 (inclusive of staging areas, roads and equipment pad locations) would be 20.5 acres.

The expected construction water use for the Project 1 site would be a maximum of 50 acre feet of water in 2014 and 50 acre feet of water in 2015, from outside of the Antelope Valley Groundwater Basin ("Basin") or other authorized water that would be obtained from an off-site provider. Depending upon climatic conditions during construction, the estimated water use could be much lower. Construction water needs would be limited to soil conditioning and dust suppression. Potable water would be brought in to the Project 1 site for drinking and domestic needs.

Construction of the site, beginning with site preparation through equipment setup and commencement of commercial operation, is expected to last approximately six months for each phase. The on-site workforce would consist of laborers, electricians, supervisory personnel, support personnel, and construction management personnel. Construction would generally occur during daylight hours, Monday through Friday. Construction activities would be conducted consistent with Los Angeles County regulations regarding hours of construction. Project 1 is expected to create 100 new jobs at peak crew size during the construction phase.

Project 1 Operations

No personnel would be stationed at the Project 1 facility, and no occupied structures would be built on the site. Full and part-time positions over the life of Project 1 would be required for periodic operation and maintenance activities and would be performed by a third party contractor. The operations water requirements would be 2.9 acre feet per year ("AFY").

Section 1.1.4 Discretionary Actions Required for Project 1

Implementation of Project 1 will require discretionary approval actions by the County, including:

- **Conditional Use Permit ("CUP")**: To authorize the construction and operation of a solar photovoltaic electricity generating plant on 240 acres and installation of a water tank in the A-2 Zone. Project 1 meets the definition of "electric generating plant" in the Los Angeles County Zoning Code. Pursuant to Section 22.24.150, electric generating plants are a use subject to a conditional use permit in the A-2 Zone.

- **Zone Change**: To authorize a Zone Change from the A-1-2 (Light Agricultural) zone, to A-2 (Heavy Agricultural) zone.

Section 1.1.5 Statement of Project Objectives

Together, proposed Projects 1 – 6 would meet the existing and future demand for electricity generated from clean, renewable technology by generating 172 MW of electrical energy from the sun. Recent legislation enacted in California recognizes the multiple benefits associated with the development of renewable energy resources. These benefits include a reduced reliance on fossil fuel, diversification of energy portfolios, reductions in greenhouse gas ("GHG") emissions, and the creation of "green" jobs within the state of California. Additionally, the Projects would assist

California in meeting the newly established Renewable Energy Portfolio Standards ("RPS"). Senate Bill 14 established RPS targets for California, stating: "All retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." State government agencies have been directed to take all appropriate actions to implement this target in all regulatory proceedings, including siting, permitting, and procurement for renewable energy power plants and transmission lines.

Each of the six proposed PV Project sites, including Project 1, qualify as eligible renewable energy resources as defined by the California Public Resources Code, and would help the State meet the objective of increasing renewable energy generation. In addition, Projects 1-6 would contribute much-needed competitive energy during peak power periods to the electrical grid in California.

As another key objective, Projects 1-6 have each been sited to minimize impacts to the environment and the local community as follows:

- Using disturbed land or land that has been previously degraded from prior use;
- Using existing electrical distribution facilities, rights-of-way, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities; and
- Minimizing impacts to threatened or endangered species or their habitats, wetlands and waters of the United States, cultural resources, and sensitive land uses.

SECTION 1.2 ENVIRONMENTAL IMPACT REPORT PROCESS

In accordance with State CEQA Guidelines Section 15063, the County completed an Initial Study (June 13, 2012) for the proposed Project, and determined that an Environmental Impact Report ("EIR") was required. A Notice of Preparation ("NOP"), including the Initial Study was circulated to the Governor's Office of Planning and Research, responsible, trustee, and interested agencies, and key interest groups beginning June 20, 2012 to solicit comments on the proposed content of the Draft EIR. The NOP was circulated for the required 30-day comment period which ended July 20, 2012. A Scoping Meeting was held on July 14, 2012 at the Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, to facilitate public review and comment on the Project.

The Draft EIR includes the Initial Study, the comment letters received during the public review period in response to the NOP, and a transcript of verbal comments received during the Scoping Meeting (see Draft EIR Appendix A-1 to A-5). All NOP comments relating to the EIR were reviewed and the issues raised in those comments were addressed, to the extent feasible, in the Draft EIR.

Potentially significant environmental impacts addressed in the Draft EIR include Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous

Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems. The Draft EIR analyzed both Project-level and cumulative effects of the Project on these topics and identified a variety of mitigation measures to minimize, reduce, avoid, or compensate for the potential adverse effects of the proposed Project.

The Draft EIR also analyzed five potential alternatives to the proposed Project, including: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites; 4) Rooftop Solar Generation; and 5) Wind Energy Generation. Potential environmental impacts of each of these alternatives were discussed at the CEQA-prescribed level of detail and comparisons were made to the proposed Project.

The Initial Study determined that the Project would result in less than significant or no impact to several environmental resource areas:

1) **Mineral Resources**: The Project would not have the potential to result in the loss of availability of a known mineral resource of value to the region, including those identified in a local general plan, specific plan, or other land use plan.

2) **Employment, Population & Housing**: The Project would provide significant short-term employment for construction workers during the two year construction period. The duration of construction for the Projects would be less than two years; and construction personnel would commute to the Projects from Lancaster, the Los Angeles areas, and Kern County. However, jobs would be temporary and would be for the two year construction period. Construction workers would not establish new households and are not anticipated to permanently relocate to the area. Additionally, adequate construction personnel presently living in Los Angeles and Kern County would fill all of the jobs that will be available. Area population, housing demands and the need for educational facilities and libraries would not be affected significantly because jobs that would be created are short term in nature; therefore, they would not be impacted by the Projects. Employment, Population, and Housing would not be impacted because the Projects do not require a significant number of personnel to operate them once they are built and producing electricity, and they do not have growth inducing impacts to the local community. Requirements for operations and maintenance are not significant and would be conducted by a few specialized contracted third-party personnel who will cover the Projects. There is no operations and maintenance building on any of the Projects 1-6.

3) **Recreation**: The Project would have no impact on recreation opportunities in the area. There are adequate recreation opportunities in the area, and the availability of these would not change as a result of the Project.

Following the Los Angeles County Department of Regional Planning ("LACDRP") internal departmental review and analysis of the proposed Project through the screencheck process, the Draft EIR was submitted to the State Clearinghouse, Governor's Office of Planning and Research, and circulated for public review period beginning January 6, 2014. The 45-day public review period required by State CEQA Guidelines Section 15087 ended on February 19, 2014.

A public hearing was held before the County's Hearing Examiner to take public testimony on the Draft EIR, at Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, held at 1:00 p.m. on February 1, 2014. Approximately 80 people attended the Hearing Examiner meeting, and 26 attendees provided oral comments on the Draft EIR. A transcript of the oral comments made at the Hearing Examiner Meeting is contained in Section 2.0 of the Final EIR.

SECTION 1.3 PROJECT FINDINGS INTRODUCTION

The Findings made by the County, pursuant to Section 21081 of CEQA, and Section 15091 of the State CEQA Guidelines, on the consideration of Project 1 of the Silverado Power West Los Angeles County Project in unincorporated Los Angeles County, California are presented below. All potentially significant impacts of the Project identified in the Final EIR are included herein, and are organized according to the resources affected.

The Findings in this document are for Project 1 of the Silverado Power West Los Angeles County Project, and are supported by information and analysis from the Final EIR and other evidence in the administrative record.

For each significant impact, a Finding has been made as to one or more of the following, in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15091:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

A narrative of supporting facts follows the appropriate Finding. For all of the impacts, one or more of the findings above have been made. The proposed Project will not result in any significant and unavoidable impacts.

SECTION 2.0 FINDINGS REGARDING POTENTIAL ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

All Final EIR mitigation measures, as set forth in the MMRP (attached as Exhibit A to these findings) have been incorporated by reference into the conditions of approval for Project 1. These mitigation measures and conditions of approval will result in a substantial mitigation of the effects of Project 1, such that the effects are not significant or have been mitigated to a level of less than significant. Specifically, the Commission has determined, based on the Final EIR, that Project 1 design features, mitigation measures, and conditions of approval will reduce

Project impacts concerning Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems to a level of less than significant.

2.1 AESTHETICS

Potential Effect:

Project 1 would have significant visual impacts to the Project area if it had a substantial adverse effect on a scenic vista; would be visible from, or obstruct views from a regional riding or hiking trail; substantially damage scenic resources including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features; or create a new source of substantial light or glare which will adversely affect day or nighttime views in the area.

Finding:

Changes or alterations have been required in, or incorporated into Project 1 which mitigate or avoid the potentially significant environmental effects related to Aesthetics.

Facts Supporting the Finding:

There are no designated scenic highways in the vicinity of the Project 1 site. It is highly unlikely that the Project 1 site would be visible from the Foothills Area or Quartz Hill, which are both located over 9 miles from the site. Even though these areas are at higher elevations, from this distance the proposed Project 1 site would fade into the flat landscape. **(DEIR at 4.1-3)**. The proposed SGFs would be not located along or in proximity to a state scenic highway and would not substantially damage or impact scenic resources such as trees (including Joshua trees) or rock outcroppings. There are no historic buildings located within the Project 1 site. **(DEIR at 4.1-105)**.

The proposed Project 1 site is currently a fallow agricultural field, and is typical of the surrounding landscape. The visual quality of the Project 1 site is low. The site itself does not have unique or rare features, or hold special significance. The topography is uniform and flat. Vegetation is uniform and consists of grasses and short shrubs. No permanent water features occur on the site, and there are no features or characteristics that set the site apart from the surrounding landscape. **(DEIR at 4.1-105)**.

No trails are located on the Project Site 1. Therefore construction or operation of the SGF and gen-tie line would not cause the vacation of any portion of any trail, nor would it obstruct expansive views from any trails. The Project Site 1 may be visible from elevated locations along the Pacific Crest Trail, from certain locations in the California Poppy Reserve, and would be visible from portions of the Little Buttes area. The nearest trails identified are associated with Little Buttes, approximately 0.7 miles southeast of the site. The SGF would be visible from trails

in the Little Buttes area when not screened or partially screened by topography. The California Poppy Reserve is located approximately 4.7 miles southwest of the site and approximately 8.5 miles from the Pacific Crest Trail. Even if visible, Project site 1 would be barely discernible from the Poppy Reserve and the Pacific Crest Trail due to distance, and largely fade into the flat landscape. If it is discernible, it would appear as a rectangular form similar to an agricultural field in shape and size. The Little Buttes Trail, an adopted proposed multiple-use County trail, runs parallel to the Project site along West Avenue B. The Project site would be dominant in views when trail users are located adjacent to the site. There are no County-designated bikeways within 4 miles of the Project site. **(DEIR at 4.1-3; 4.1-78; 4.1-100)**

90th Street West, located approximately 1.3 miles east of Project Site 1, is considered a potential scenic route by the City of Lancaster's Master Environmental Assessment (City of Lancaster 2009a). 90th Street West is located at a slightly lower elevation than the proposed SGF. As shown in DEIR Figure 4.1-6, the landscape between 90th Street West north of West Avenue B and the site is very flat. South of 90th Street west, the proposed Project 1 site would be screened by terrain associated with the Little Buttes area. Because of the low profile of the solar modules and the level to lower elevation of 90th Street West compared to the site, where visible the SGF would likely fade into the flat landscape and not dominate the view. **(DEIR at 4.1-4)**. The proposed Project 1 gen-tie lines would be undergrounded from the proposed Project 1 site, under the adjacent road, to a riser next to an existing pole. **(DEIR at 4.1-78)**.

Construction activities and equipment on Project 1 site would be noticeable from vistas on top of and around Little Buttes because of the close proximity of the SGF. During construction of the SGF, disturbance areas would appear as large patches of fine, buff-colored rock and soil. Construction activities may produce dust visible from Little Buttes and 90th Street West, but impacts would be mitigated to less than significant with implementation of the fugitive dust plan (Mitigation Measure A-1). Any trash, debris, and waste would be removed from the Project 1 site during construction and the site screened or partially screened by fencing. Adverse visual effects from construction would be temporary and last only during the construction time period, and would be less than significant with Mitigation Measures A-1, A-2 and A-3. **(DEIR at 4.1-93; 4.1-100; 4.1-105)**. Because construction activities would be limited to daylight hours, impacts from nighttime lighting would not occur. Lighting will comply with the Los Angeles County Rural Outdoor Lighting District Ordinance. Therefore, the impacts would be less than significant with implementation of MM A-5. **(DEIR at 4.1-113)**.

A post-construction visual simulation (DEIR Figure 4.1-31) was developed from a viewpoint on top of Little Buttes at approximately 0.7 mile southeast and 100 feet higher in elevation than the southeast corner of the Project 1 site. The overall contrast introduced to the landscape at this viewpoint was evaluated to be moderate, and no changes are anticipated to landforms. The visual effects of vegetation removal would be screened or mostly screened by the solar modules, and this change would not be visible from this perspective. The installation of the solar modules would create a weak contrast in terms of form, and a moderate contrast in terms of line, color, and texture. **(DEIR at 4.1-93)**.

In addition, other electric infrastructure, including the high-voltage transmission lines and a large wind farm, are also visible from the Project 1 site. Because this existing electrical infrastructure is also visible from scenic vistas from the Pacific Crest Trail and Little Buttes, and other PV

solar fields may be visible from the same scenic vistas (Antelope Valley Solar Phase I) the SGF would not significantly degrade views from nearby scenic vistas. Even where visible, the Project 1 site would not be a dominant element in the landscape unless the viewer is situated directly adjacent to the facility. At eight feet tall, the PV modules are relatively short, and given their design, which is to absorb sunlight instead of reflecting it, the modules would not be highly reflective. **(DEIR at 4.1-94)**.

Viewers such as nearby residents and travelers on local roads would still experience views of the open desert lands around the Project 1 site after the solar facility is constructed. Even where visible, the proposed SGF components would not be a dominant element in the landscape unless the viewer was directly adjacent to the facility. A contrast rating was conducted from the viewpoint shown in DEIR Figure 4.1-38 (approximately 0.25 miles east of the site) to assess the level of contrast that would be introduced by the proposed Project to landform, vegetation, or structures in terms of major landform characteristics (form, line, color, and texture). The height, bulk, pattern, and scale of the proposed Project 1 features are considerations in the contrast rating process. **(DEIR at 4.1-112).**

According to the contrast rating (provided in DEIR Appendix B-1.6), the SGF can be expected to introduce a low level of contrast to the landscape from this viewpoint. No changes to landforms or vegetation would be visible. The SGF would introduce new structures to the area, but the solar panel structures would be low-profile and the lines created would mimic the naturally flat lines of the foreground landscape. The color of the solar modules, which is dark gray at this distance and perspective, already exists in the landscape. From viewing points further than approximately 0.25 miles from the solar field, at approximately the same elevation, the solar facility would largely fade into the flat landscape and not dominate the view. **(DEIR at 4.1-112).**

Even though the SGF components are out-of-character with directly adjacent land (which is primarily rural residential and fallow agriculture), the SGF is not out-of-character when considering the context of the surrounding landscape. Rural development and public infrastructure are common in the landscape around the Project 1 site, and include an 800-acre water treatment plant, roadways, the Antelope Valley Freeway, communication towers, and rural residences. Wind turbines located at the foot of the Tehachapi Mountains are visible from the site as well. Viewers such as nearby residents and travelers on the Antelope Valley Freeway and West Avenue D would still experience views of the open desert lands around the SGF after the facility is constructed (DEIR Figure 4.1-38). A 10-foot vegetative buffer is proposed to mitigate views directly along the southern Project 1 site boundary for 0.25 mile, where it is adjacent to West Avenue D. **(DEIR at 4.1-112).**

Because other structures including PV solar facilities are common in the vicinity of the Project 1 site and in the larger Project area, and because the site itself is not characterized by high visual quality, the visual impact of the site on the existing visual character of the proposed site and its surroundings would be less than significant. **(DEIR at 4.1-112).** Project 1's visual impacts are further reduced with the adoption of the following feasible mitigation measures:

A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.

A-2 The Project site shall be maintained free of debris, trash, and waste during construction.

A-3 The Project site shall be visually screened or partially screened during construction by fencing.

A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.

A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on essential infrastructure rather than on separate light poles except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.

2.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Project 1 would have a significant impact on Agriculture and Forestry Resources if it would: convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract; conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220 (g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g)); result in the loss of forest land or conversion of forest land to non-forest use; or 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.

Finding:

Project 1 will not have a significant effect on the environment related to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

As currently mapped under 2010 data from the Department of Conservation ("DOC") Farmland Monitoring and Mapping Program ("FMMP"), the Project 1 site contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. **(DEIR at 4.2-5)**. Project 1 also contains no forest land, timberland, or timberland zoned Timberland Production. **(DEIR at 4.2-8)**.

Project 1 is located within the Los Angeles County Zoning Ordinance designation A-1 (Light Agriculture), which does not contain provisions for renewable energy development. However, a zone change application has been submitted. The future zoning of the property is A-2 (Heavy Agriculture). According to LACDRP, a solar electricity generating facility is allowed in Zone A-2 with the issuance of a CUP. Furthermore, Project 1 will not preclude future agricultural uses. Project 1 and the gen-tie line are located within a LACDRP Agricultural Opportunity Area. The Antelope Valley Areawide General Plan Policy states that these areas should be protected from incompatible uses. The Antelope Valley Area Plan states that applications for non-agricultural uses in the LACDRP Agricultural Opportunity Area ("AOA") areas will be evaluated for their impact upon adjacent agricultural operations. **(DEIR at 4.2-6 to 4.2-7)**.

Project 1 would generate electrical power through renewable solar PV technology which is an allowable use on the site with a CUP and zone change. Project 1 would involve conversion of land that was formerly used for agricultural production to renewable energy production. Construction and operation of Project 1 would not involve other restrictions, obstructions, or resources that could result in conversion of Farmland to non-agricultural use. Additionally, Project 1 was last irrigated in 1972, and surrounding projects are mostly undeveloped and fallow agricultural land. Project 1 would produce power in a passive manner and would result in minimal air emissions, traffic, and noise, and would not affect adjacent agricultural operations. Additionally, the proposed property is not designated under a Williamson Act contract. As a result, construction and operation of Project 1 would not conflict with existing or proposed future zoning for agricultural use or a Williamson Act contract. Therefore, Project 1 impacts to existing agricultural use zoning, designated Agricultural Opportunity Areas, and Williamson Act contracts will be less than significant. **(DEIR at 4.2-7)**.

Project 1 and its associated gen-tie lines will temporarily preclude future agricultural use at the Project 1 site location. Following the termination of power generating activities at the Project 1 Site, all facilities and equipment would be removed, and the land would be restored as near to its pre-development condition as possible, in the event a new similar land use is not contemplated at that time by then-current owners. A decommissioning and reclamation plan detailing land restoration activities will be provided, as required by Los Angeles County as part of the CUP approval. Additionally, the Applicant will be required to provide a decommissioning bond, or other suitable financial guarantee acceptable to the County, equal to the amount of money estimated to be required to decommission the Projects, including any additional environmental review which might become necessary, and restore the land to as near its pre-development condition as possible. The Project will not impact any land use outside the Project 1 site limits. Therefore, impacts regarding the conversion of Farmland to non-agricultural use will be less than significant. **(DEIR at 4.2-8)**.

No mitigation measures are required for Agriculture and Forestry Resources.

2.3 AIR QUALITY

Potential Effect:

Project 1 would have a significant impact on Air Quality if it would: conflict with or obstruct implementation of the applicable air quality plan; violate any air quality standard or contribute substantially to an existing or projected air quality violation; cumulatively produce a considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors); expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people.

Finding:

Changes or alterations have been required in, or incorporated into Project 1 which mitigate or avoid the potentially significant environmental effects related to Air Quality.

Facts Supporting the Finding:

Pursuant to the Clean Air Act ("CAA"), the Antelope Valley Air Quality Management District ("AVAQMD") is required to reduce project emissions of criteria pollutants for which the Mojave Desert Air Basin ("MDAB") is in non-attainment. Project 1 is located within a non-attainment area, which means that certain Project-related activities could potentially be subject to emission control strategies contained within the AVAQMD Federal 8-Hour Ozone Attainment Plan. Construction would involve activities that can result in emissions of particulate matter ("PM"). However, construction of PV panels and the generation-tie line would not require intense earthmoving activities, only the low-impact method of mowing the surface. Compliance with applicable rules, ordinances, plans, and policies would minimize PM emissions during construction. Project 1 construction emissions would not exceed emission thresholds, and would be less than significant. **(DEIR at 4.3-25)**. Since construction of Projects 1-6 would occur consecutively over the course of two years, construction of the six Projects could overlap, which may cause a peak in the Projects' daily construction emissions. However, maximum daily and annual construction emissions would not exceed the appropriate AVAQMD significant thresholds for all pollutants, even with the potential overlap in construction schedules. **(DEIR at 4.3-37)**.

During operation of Project 1, the Project site would undergo maintenance and security activities no more than 10 times annually (as needed), and would not create a daily increase in population or visitors. The assumption of 10 annual trips includes truck trips associated with panel washing. Project 1 would comply with AVAQMD rules and Los Angeles County ordinances, and is designed to be consistent with applicable county policies and the Attainment Plan. Therefore, Project 1 would not conflict with implementing the applicable air quality plan. **(DEIR at 4.3-25)**.

Project 1 emissions estimates are based on compliance with AVAQMD Rule 403 requirements for fugitive dust suppression, watering exposed surfaces two times daily. The short-term

emissions during Project 1 construction would not exceed AVAQMD significance thresholds. As such, Project 1 would not exceed thresholds, result in violating air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-28)**. Likewise, even when all six Projects operate concurrently, the operation of all six Projects would not exceed annual thresholds, violate air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-42)**.

Decommissioning of Project 1 (and each of the six Project sites) would require removal of the PV modules, PV module mounting system, electrical boxes, electrical inverters and transformers, electrical AC collection system, switchgear, data monitoring equipment, chain link perimeter security fencing, concrete ballasts, underground vaults, other concrete pads, and transporting all components off site. Air quality emissions from decommissioning would be generated from the pieces of equipment used and any fugitive dust from site preparation activities. Equipment used for decommissioning and removal of concrete ballasts, underground vaults, concrete pads, etc. generally would be similar to that used for construction, except that no mowing or clearing would be required.

Since decommissioning does not involve mowing or clearing activities, the level of fugitive dust emissions would be less than emissions created during construction. After removal of equipment and facilities, the site would need to be re-vegetated. Decommissioning would occur after at least 25 years of operation; therefore, equipment engine technology is likely to be more advanced, and fuels to be cleaner. Criteria pollutant emissions during decommissioning would be equal to or, more likely, less than those estimated from construction for Project 1, and will also be less than significant with mitigation. **(DEIR at 4.3-42)**. Similar to criteria pollutant emissions, hazardous air pollutant emissions during decommissioning would be less than during construction due to advanced equipment engine technology and cleaner fuel and would therefore be less than significant. Exhaust from off-road equipment and on-road vehicles used during decommissioning and construction truck trips would not be expected to create objectionable odors, and would therefore be less than significant. **(DEIR at 4.3-42).**

The MDAB is currently nonattainment for federal and state ozone standards and nonattainment for state PM_{10} standards, which may cause emissions from Project 1 to contribute to an existing or projected air quality standard exceedance. Implementing any of the six Projects (including Project 1) would increase short-term emissions related to construction, and a negligible increase in long-term emissions related to SGF operation and maintenance. Construction for all six sites is expected to be staggered, and may extend over two years. Nevertheless, due to the nature and size of each site, simultaneous construction would not result in emissions of ozone precursors or PM_{10} that exceed daily thresholds. As shown in DEIR Table 4.3-12, "Mitigated Peak Daily Concurrent Construction Emissions", and DEIR Table 4.3-13, "Peak Annual Concurrent Construction Emissions", the impacts would be less than significant prior to mitigation. Implementing control strategies to reduce PM_{10} further minimizes air emissions. As such, construction of Project 1 would not 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). **(DEIR at 4.3-43)**.

During the operation phase, Project 1 will have no major emissions sources. Facility operating equipment that emits regulated air pollutants or requires AVAQMD permits is not planned at Project 1 or any of the six Project sites. As shown in DEIR Table 4.3-20, "Peak Annual Concurrent Operation Emissions", the impacts would be less than significant. As such, operation of Project 1 would not 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). **(DEIR at 4.3-44)**.

Project 1 was analyzed for air impacts to nearby sensitive receptors; however, sensitive receptors would only be exposed during construction activities. PM_{10} and $PM_{2.5}$ concentrations are expected to occur primarily from fugitive dust emissions during mowing, excavation activities and, to a lesser degree, during PV installation and paving. Rule 401 requires that airborne particles remain on the site from which they originate under normal wind conditions. Proper mitigation techniques must be implemented to ensure that fugitive dust is contained. Emissions are not expected to expose even the closest sensitive receptors to substantial pollutant concentrations, and, due to the distance between Project sites, simultaneous construction at two sites would not significantly impact the same sensitive receptors. **(DEIR at 4.3-44)**.

Operational emissions from Project 1 would not impact local air pollutant levels at nearby receptors. As mentioned above, sensitive receptors would only be exposed, if at all, during construction activities. The primary source of Project emissions during operation is the vehicles used by facility maintenance staff traveling to and from the site. Maintenance is expected to occur no more than 10 times per year. Overall, Project 1 would not result in an increase in VMT over the course of one summer or winter day. Thus, Project 1 would not result in new long-term stationary sources, nor would they result in a significant number of net new vehicular trips. Carbon monoxide (CO) impacts from operation of Project 1 to sensitive receptors would be less than significant. **(DEIR at 4.3-44)**.

Short-term concentration levels during the construction phase will not expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than the EPA screening levels. **(DEIR at 4.3-45)**. Due to continuous construction of each of the six Project sites over the course of two years (which may overlap), long-term cancer impacts from construction activities to the nearest sensitive receptors were evaluated, and found that even with the cumulative contribution of health risk impacts from all six proposed Projects, the cumulative cancer risk to the identified sensitive receptors is still below the cancer risk exposure level. **(DEIR at 4.3-46)**. Short-term concentration levels during Project 1 site construction will neither expose sensitive receptors to substantial pollutant concentrations, nor exceed the cancer risk screening levels. **(DEIR at 4.3-47)**.

Project 1's Air Quality impacts are further reduced with the adoption of the following feasible mitigation measures:

AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction, or, in locations where water alone does not suffice to suppress dust adequately apply nontoxic chemical soil

stabilizers, according to manufacturers' specifications. Temporarily stockpiled soil shall be secured with tarps or plastic sheeting or sprayed with non-toxic soil stabilizers.

AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).

AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.

AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.

AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.

AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.

AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.

AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.

AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.

2.4 BIOLOGICAL RESOURCES

Potential Effect:

Project 1 would have a significant impact on biological resources if it would: have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game Wildlife ("CDFW") or U.S. Fish and Wildlife Service ("USFWS"); have a substantial adverse effect on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, and regulations of CDFW or USFWS; have a substantial adverse effect on federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means; 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; 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) otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.); 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, Section 22.56.215), and the Sensitive Environmental Resource Areas ("SERAs"), (L.A. County Code, Title 22, Section 22.44, Part 6); or conflict with the provisions of an adopted state, regional, or local habitat conservation plan.

Finding:

Changes or alterations have been required in, or incorporated into Project 1 which mitigate or avoid the potentially significant environmental effects related to Biological Resources.

Facts Supporting the Finding:

Project 1 does not contain riparian habitat, coastal sage scrub, oak woodlands, wetlands, Joshua trees, or yucca trees on the site, and does not contain non-jurisdictional or state regulated waters. **(DEIR at 4.4-59)**. There are also no wetlands, vernal pools, or riparian habitat identified on the Project 1 site. No federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act

features, were identified on the Project 1 site. **(DEIR at 4.4-60)**. Project 1 does not contain oak trees, juniper trees, Joshua trees, or other unique native trees. **(DEIR at 4.4-62)**. Project 1 and the immediate vicinity do not contain or conflict with any Significant Ecological Areas ("SEAs"), Wildflower Reserve Areas, or Sensitive Environmental Resource Areas ("SERAs"). The closest SEAs to Project 1 are Fairmont and Antelope Buttes which are 4 miles south and Rosamond Lake which is 10 miles east. Therefore, Project 1 would not conflict with any local policies or ordinances protecting biological resources. **(DEIR at 4.4-63)**. There are also no adopted state, regional, or local habitat conservation plans in effect within the boundaries of the Project 1 site.

Project 1 has low potential for American badger, ferruginous hawk, merlin, and Le Conte's thrasher to occur onsite. There is moderate potential for mountain plover and burrowing owl to occur onsite based on habitat suitability. Burrowing owls were not observed onsite during 2013 targeted surveys but potential burrows were observed. In addition, although not a sensitive species, kit fox is plays an important role in providing burrow sites for burrowing owl and has potential to occur within Project 1. Potential for Swainson's hawk is low due to the lack of nesting and foraging habitat on the site. There is high potential for loggerhead shrike to occur onsite. Developing this site as a solar generating facility would remove habitat for this species and would result in a significant impact. Mitigation measures provided in Section 4.4.8 would reduce these impacts to less than significant; however, the 240 acres of land for Project 1 would be mostly unavailable as wildlife habitat during the life of Project 1. **(DEIR at 4.4-57)**.

Project 1 is located within an area of topographically homogeneous open space, and there are no local constraints to movement of resident or migratory wildlife that development of Project 1 would further aggravate. There are no known wildlife migration pathways that would be impacted by Project 1. **(DEIR 4.4-61)**.

Wildlife nursery areas on the Project 1 site may include nesting sites of native bird species, which are protected by the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) and the California Fish and Game Code Section 3503. Burrowing owls may have suitable burrows on the Project 1 site, and protections for bird nesting and burrowing owls are provided in Mitigation Measures B-1, B-2, B-3 and B-4. The intent of acquiring mitigation lands would be to select available parcels that would replace lost breeding/foraging/winter foraging habitat and enhance the overall quality of habitat for a variety of species including migratory bird species. The potential to acquire parcels that would also maintain or enhance wildlife migration corridors in the area would also be considered. Planting of shrubs and native vegetation on the Project 1 site would improve the opportunities for shrub-nesting bird species on the Project 1 site when it is complete. **(DEIR 4.4-61)**.

Project 1 impacts to Biological Resources are further reduced with the adoption of the following feasible mitigation measures:

B-1: Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by

qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to LACDRP and CDFW at their request.

B-2: Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below.

Pre-survey information gathering will include review of all available agency nest data and mapping.

- A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted.

- Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds.

- A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012).

  If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The

Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals.

Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand-excavated and collapsed under the supervision of the avian biologist.

Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals.

- Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.

B-3: During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW during construction activities, as frequently as required by LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.

B-4: Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily.

Swainson's hawk: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity.

The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats:

Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows:

- A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed SEA.

- A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat;

- A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat.

Burrowing Owl: Mitigation for any occupied burrowing owl burrows found during preconstruction surveys will include a comprehensive tiered approach:

- Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;

- Disturbance avoidance of occupied burrows during nesting period February 1 – August 31;

- Impact avoidance of occupied burrows;

- Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW).

- Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback).

- Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project.

Alkali Mariposa Lily: Alkali mariposa lily will be avoided to the greatest extent possible. If preconstruction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable.

For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.

B-5: Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria:

> **Habitat Management Land Selection Criteria**: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired.
>
> Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred.
>
> **Habitat Management Lands Acquisition:** Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of

acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW.

The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s) acquisition in an amount acceptable to the LACDRP and CDFW.

Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the Applicant shall provide a proposed date of purchase which coincides with construction of the facility.

B-6: Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.

B-7: Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads) as follows:

Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock is not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.

2.5 CULTURAL RESOURCES

Potential Effect:

Project 1 would have a significant effect on Cultural Resources if it would: cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5; cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of formal cemeteries.

Finding:

Changes or alterations have been required in, or incorporated into Project 1 which mitigate or avoid the potentially significant environmental effects related to Cultural Resources.

Facts Supporting the Finding:

One historic-era site was identified within Project 1, "Site P-19-004222", which is a complex of partially demolished and dilapidated farm structures. Site P-19-004222 is in ruins, and lacks any physical integrity from its period of significance (c, 1950s) and the recordation of surface artifacts has likely exhausted the date potential for the site. P19-004222 is recommended as not eligible for listing on the California Register of Historic Resources ("CRHR") or National Register of Historic Places ("NRHP") and no further management consideration of the resource is necessary. Therefore, construction and operation of Project 1 will cause no change in its level of significance. **(DEIR at 4.5-22)**.

There is a possibility that historical and/or archaeological materials would be uncovered during necessary subsurface excavations for the construction of the proposed Project 1. Although the likelihood of encountering archaeological resources on the site is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure CUL-1, which describes procedures to be followed in the event that cultural resources are discovered, is required. CUL-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-22)**.

No archeological resources were detected during the transect survey. Therefore, Project 1 would not cause a substantial adverse change in the significance of an archaeological resource. There is a possibility that historical and/or archaeological materials would be uncovered during necessary subsurface excavations for the construction of the proposed Project 1. Although the likelihood of encountering archaeological resources on the site is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure CUL-1, which describes procedures to be followed in the event that cultural resources are discovered, is required. CUL-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-27).**

Likewise, no paleontological resources were detected during the transect survey. Based on the paleontological assessment, it is unlikely that any intact significant paleontological resources are or will be located on the property. Therefore, Project 1 would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature, or contain rock formations indicating potential paleontological resources. If Project 1 excavations reach 10 feet or more below current grade and reveal that older Quaternary deposits and/or the later Miocene deposits are exposed, there will be a higher potential for encountering significant vertebrate fossil remains. Deep cuts should be inspected by a qualified paleontologist in an attempt to identify the more sensitive older alluvial strata. There is a possibility that paleontological materials would be uncovered if excavations for the construction of Project 1 reach a depth of 10 feet or more below current grade. Although the likelihood of encountering paleontological resources within the Project 1 area is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure PALEO-1, the development of a Paleontological Resources Mitigation and Monitoring Plan ("PRMMP") by a qualified paleontologist if construction excavation depth

is below 10 feet or more below current grade, is required. PALEO-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-30)**.

There is no indication as a result of this study that human remains are present within the boundaries of Project 1. The records search and the field survey indicate no evidence of human remains on or near the sites. Project-related earth disturbance, however, has the potential to unearth previously undiscovered remains, resulting in a potentially significant impact. However, implementation of Mitigation Measure CUL-2 that describes procedures to be followed in the event that human remains are discovered would ensure that impacts are reduced to a less than significant level. **(DEIR at 4.5-32)**.

Project 1 impacts related to Cultural Resources are further reduced with the adoption of the following feasible mitigation measures:

CUL-1: In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist and Native American Monitor shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites.

If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.

CUL-2: In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.

PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. The paleontologist shall develop and execute a PRMMP and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment according to the Program.

2.6 GEOLOGY AND SOILS

Potential Effect:

Project 1 would have a significant effect on Geology and Soils if it would: expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic related ground failure, including liquefaction and lateral spreading; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides; result in substantial soil erosion or the loss of topsoil; 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; be located on expansive soil; have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater; or conflict with the Hillside Management Area Ordinance or hillside design standards in the County General Plan Conservation and Open Space Element.

Finding:

Project 1 will not have a significant effect on the environment related to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

Project 1 and the Project 1 gen-tie line are not located in an active or potentially active fault zone according to the California Geological Survey ("CGS") Seismic Hazard Zone Maps (CGS 2008) and Alquist-Priolo Earthquake Fault Zoning Map (CGS 2010). The closest fault zones are the San Andreas Fault Zone, which is located approximately 10.5 miles to the south southwest of the Project 1 site, and the Garlock Fault Zone, which is located approximately 15.5 miles northwest of the Project 1 site. Based on research and available information, Project 1 is susceptible to

seismicity, but is not susceptible to fault rupture; therefore, impacts involving the rupture of a known earthquake fault will be less than significant. **(DEIR at 4.6-13)**.

The United States Geological Survey ("USGS") National Seismic Hazard Map (2008) indicates that Project 1 and the Project 1 gen-tie line are located in an area mapped from 30 to 40 percent gravity for peak horizontal acceleration with a 10 percent probability of exceedance in the next 50 years. According to the USGS, and dependent on structural design, 10 percent gravity is the lower threshold at which damages to structures are likely to occur. Based on geologic and soil conditions at the site, the USGS Ground Motion Parameter Calculator indicates that Project 1 facilities will need to be designed to sustain spectral accelerations of approximately 0.075 to 0.217 percent gravity (USGS 2012). **(DEIR at 4.6-15)**.

Project 1 has the potential to be subjected to ground motion during construction. However, because of the temporary nature of the construction period relative to the frequency of occurrence of significant seismic events, the potential for Project 1 construction to expose people or structures to substantially adverse effects due to seismicity and ground motion will be less than significant. **(DEIR at 4.6-15)**. During operation of the facility, all Project 1 structures and operational facilities will be designed in accordance with the California Building Code ("CBC") and applicable industry standards. The design and construction of Project 1 would comply with all applicable building codes and standards established by regulatory agencies, including the Los Angeles County Department of Public Works and the CBC. Therefore, Project 1 impacts related to seismic shaking and strong ground motion hazards would be less than significant. **(DEIR at 4.6-15)**.

The CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 1 or the Project 1 gen-tie line as being located in zones with the potential for liquefaction or ground failure. Additionally, Project 1 is located on poorly sorted coarse grained materials with groundwater typically greater than 150 feet below ground surface (bgs) (USGS 2008). Based on available geologic information, the potential susceptibility of ground failure is less than significant for Project 1 construction and operation. **(DEIR at 4.6-19)**.

Project 1 and associated gen-tie lines contains generally low slopes of less than 1 percent gradient. As indicated in the Project description, development of the solar facility would not result in significant changes to existing site grades, and would not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 1 as being located in zones susceptible to landslides or slope failure. Therefore, the potential susceptibility for slope failure and landslides during construction and operation is less than significant for Project 1. **(DEIR at 4.6-20)**.

The soil series at the location of Project 1 and the Project 1 gen-tie line was indicated to be Rosamond fine sandy loam. This soil series has an erosion factor of 0.32 to 0.37, indicating a medium susceptibility to water erosion, and a wind erodibility group of 3, indicating a low to medium susceptibility to wind erosion. Implementation of appropriate erosion and sediment control BMPs will be implemented during construction and operation of Project 1, as outlined in Draft EIR Hydrology Section 4.9 and Air Quality Section 4.3, and will mitigate potential impacts to less than significant levels. **(DEIR at 4.6-21)**.

Based on the information in the Geotechnical Critical Issues Analyses and Custom Soil Resource Reports prepared by Tetra Tech, the location of Project 1 and the Project 1 gen-tie line contains generally low gradient slopes. Development of solar facilities will not result in significant changes to existing site grades, and will not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) indicates that Project 1 is not susceptible to landslide or liquefaction hazards. Although subsidence has occurred throughout the Antelope Valley, the majority of subsidence has been concentrated near the City of Lancaster and was caused by excessive groundwater pumping and decreased water levels. Subsidence in the vicinity of Project 1 was between 0 to 2 feet from 1930 to 1992. Surficial evidence such as fissures and differential settling has not been observed at or near the location of Project 1. Based on historic rates of subsidence and a relatively stabilizing water level due to reduced pumping and proposed aquifer management, future subsidence is expected to be minimal. In the event that minor future subsidence does occur, the potential impact to the proposed structural design (post mounted racking systems and relatively small foundations for electrical equipment) would be minimal. Based on geologic data and the proposed construction and operation as described in the Project description, Project 1 impacts to on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse will be less than significant. **(DEIR at 4.6-23)**.

The soil series at the location of Project 1 and the Project 1 gen-tie line was indicated to be Rosamond fine sandy loam. This soil series is rated for a low shrink/swell potential. The potential for expansive soils to affect Project 1 is less than significant. **(DEIR at 4.6-25)**.

Project 1 does not propose the use of any sanitary facilities that will require septic tanks or sanitary wastewater disposal during either construction or operation. Therefore, no impact will occur. Project 1 (and gen-tie lines) are located on the floor of the Antelope Valley where the terrain is nearly flat. Project 1 is not in the hillside area and are not affected by Hillside Management Areas. **(DEIR at 4.6-26)**.

2.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Project 1 would have a significant impact related to Greenhouse Gas Emissions and Climate Change if it would: generate direct or indirect GHG emissions that may have a significant impact on the environment, based on any applicable threshold of significance; or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Finding:

Changes or alterations have been required in, or incorporated into Project 1 which mitigate or avoid the potentially significant environmental effects related to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

Project 1's short-term GHG emissions during the construction phase (maximum daily emissions of 7,064 pounds per day) would not exceed the AVAQMD significance threshold for maximum

daily emissions (548,000 pounds per day). As such, Project 1 would not exceed thresholds or result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-20)**.

Because construction of the six Project sites may overlap, concurrent construction emissions of Projects 1-6 were analyzed by emissions per year and thus compared to the annual GHG threshold of 100,000 metric tons of CO_{2e} per year, for long-term emissions. The unmitigated peak annual construction levels for all six Project sites are expected to result in annual GHG emissions below the most stringent annual threshold proposed by the AVAQMD (100,000 tons per year). As such, the Project will not exceed thresholds or result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-23)**.

During operations, Project 1 facility operation would be limited to general maintenance, panel washing, and security. The primary source of emissions during operations is mainly the vehicles used by facility maintenance staff to and from the site. It is anticipated that operations and maintenance would utilize one water truck for panel washing and one light duty truck twice per year. Although Project 1 is scheduled for bi-annual panel washing, a maximum of ten trips were assumed for each Project (four round trips plus one additional round trip to be conservative). The operation emissions provided for each Project are considered the Project's baseline emissions, since it does not include any solar energy reductions. Because operations-related GHG emissions are considered long term, the AVAQMD daily significance threshold of 100,000 metric tons of CO_{2e} per year was used to analyze impacts during operations. The total annual operational emissions for Project 1 are 6.04 tons of CO_{2e} per year, which is well below the AVAQMD threshold of 100,000 tons per year. **(DEIR at 4.7-24)**. Likewise, concurrent operation of all six Projects is estimated to generate approximately 31 metric tons of CO_{2e} annually, which is well below the AVAQMD threshold. **(DEIR at 4.7-27)**.

Construction-related emissions from Project 1 would be temporary and finite in nature, below the applicable thresholds, and are consistent with the AB 32 Scoping Plan. Accordingly, Project 1's construction-related GHG emissions would not be a cumulatively considerable contribution to climate change. Project 1's operational GHG emissions would be negligible and not comprise a cumulatively considerable contribution to climate change and, therefore, would be less than significant. **(DEIR at 4.7-28).**

Furthermore, with implementation of Project 1, there would be an added environmental benefit of displacing GHG emissions in the region. The solar energy generation would offset emissions from electricity usage, which would otherwise be produced by fossil-fueled power generation facilities using petroleum, natural gas, or coal combustion. Project 1 would result in a temporary increase in GHG emissions which is below the most stringent proposed threshold; employ active solar technologies supportive of the state's goals to reduce GHG emissions; and is consistent with the County of Los Angeles's goals. **(DEIR at 4.7-29)**.

Project 1 would therefore be in accordance with the state's need for the construction of renewable energy power plants to meet the state's GHG reduction objectives including:

- California's RPS that requires California's investor-owned electric utilities to obtain 20 percent of the electricity that they supply by 2010 from renewable sources;

- Executive Order S-14-08, which established the RPS targets for California that "all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020";

- Executive Order S-03-05 on climate change to advance renewable energy and other solutions to reduce California's GHG emissions; and

- The California Global Warming Solutions Act of 2006 (AB 32) that established a comprehensive program of regulatory and market mechanisms to reduce GHG emissions to 1990 levels by the year 2020.

Project 1 includes various project design features and objectives that address global climate change and reduce GHG emissions, as do each of the Projects 1-6. Project design features include aspects of the Project that either must be incorporated as part of the conditions of approval, or that the Applicant has committed to include to reduce GHG impacts associated with the Project. The Projects would be designed to reduce emissions through specific goals set. The expected Project features would directly or indirectly result in lower emissions of GHGs. The Project design features that address global climate change impacts include the following:

- Vegetation to sequester GHGs
    - Preserve natural areas by mowing, which maintains the organic material in the soil
    - Preserve open space by limiting constructing on portions of Project site
    - Plant trees and shrubs along the edges as buffers to adjacent receptors

- Construction limitations to minimize GHG emissions
    - Limit construction equipment idling beyond regulation requirements
    - Limit number of simultaneous construction projects by phasing

As such, Project 1 would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions. **(DEIR at 4.7-30)**. In addition to the Project design features listed above, the Project's impacts related to Greenhouse Gas Emissions and Climate Change are further reduced with the adoption of the following feasible mitigation measures:

GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

GHG-3 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.

GHG-4 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

2.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Project 1 would have a significant effect on Hazards and Hazardous Materials if it would: create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials; 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; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses; be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment; for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; for a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area; impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; expose people or structures to a significant risk of loss, injury, or death involving fires, due to location within a Very High Fire Hazard Severity Zones (Zone 4); expose people or structures to a significant risk of loss, injury or death involving fires, due to location within a high fire hazard area with inadequate access; expose people or structures to a significant risk of loss, injury or death involving fires due to location within an area with inadequate water and pressure to meet fire flow standards; expose people or structures to a significant risk of loss, injury or death involving fires due to location within proximity to land uses that have the potential for dangerous fire hazard; or constitute a potentially dangerous fire hazard.

Finding:

Changes or alterations have been required in, or incorporated into Project 1 which mitigate or avoid the potentially significant environmental effects related to Hazards and Hazardous Materials.

Facts Supporting the Finding:

Project 1 would not require extensive or ongoing use of hazardous materials. Hazardous materials used during the construction of Project 1 would be typical of most construction projects of this type. Hazardous materials used during construction activities may include gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, and other supplies. All hazardous materials would be transported, stored, and properly disposed of in compliance with all applicable laws and regulations. The accidental release of hazardous materials or wastes during construction activities is possible. The accidental release of hazardous materials or wastes would be promptly contained and abated in accordance with all applicable laws and regulatory requirements, and therefore is not expected to result in a significant impact. **(DEIR at 4.8-11)**. During operation of Project 1, limited quantities of hazardous materials would be stored on-site. These materials would include fire suppressant and transformer insulating oil (mineral oil). The mineral oil would be contained within Project 1 electrical transformers and switches. Project 1 would develop and implement a hazardous materials and hazardous waste management program for both construction and operational phases. The program would include the following, as required by applicable regulations. **(DEIR at 4.8-11)**.

- **Hazardous Materials and Hazardous Waste Handling:** The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 1. This program would be implemented prior to the start of construction activities. The program would prescribe proper hazardous material use, storage, and disposal requirements, as well as hazardous waste management procedures. The program would identify specific types of hazardous materials to be used during Project 1 construction and operation, and specific types of wastes that will be generated. All personnel would be provided with Project-specific training. These programs would be developed to ensure that all hazardous materials and hazardous wastes would be handled and disposed of in a safe and environmentally sound manner consistent with all applicable laws and regulations. Employees and contractor personnel handling wastes would receive hazardous materials training and be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and treatment, storage, and disposal facility ("TSDF") training in accordance with Occupational Safety and Health Administration ("OSHA") Hazard Communication Standard and 22 CCR. Prior to the start of construction of Project 1, a Hazardous Materials Business Plan ("HMBP") will be prepared and submitted in accordance with Chapter 6.95 of the California Health and Safety Code and Title 22 CCR, as required by the Certified Unified Program Agency.

- **Construction Stormwater Pollution Prevention Plan:** The construction contractor would prepare a site-specific SWPPP for review and approval by the appropriate regulatory agencies and implement it prior to the start of demolition or construction activities at Project 1. The SWPPP would utilize BMPs to address the storage and handling of hazardous materials and sediment runoff during demolition and construction activities.

- **Transport of Hazardous Materials and Hazardous Wastes:** Hazardous materials transported by truck would include fuel (diesel fuel and gasoline) and oils and lubricants

for equipment. Transportation of hazardous waste may include hazardous building materials and small amounts of construction waste such as waste oils, solvents, or cleaners. The construction contractor would prepare written procedures for the transport of hazardous materials and hazardous waste in accordance with the California Vehicle Code, California Highway Patrol Regulations (CCR Title 13); Department of Transportation Regulations, Title 49, CFR; and U.S. Environmental Protection Agency Regulations, Title 40 CFR, and CCR 22 regulations prior to the start of construction activities at Project 1.

- **Fueling and Maintenance of Construction Equipment:** The construction contractor would prepare written procedures for the fueling and maintenance of construction equipment prior to the start of construction activities at Project 1. Vehicles and equipment would be refueled off-site or on-site by refueling trucks. If on-site refueling or maintenance activities are required, refueling and maintenance procedures would include implementation of BMPs to ensure that chemicals do not come in contact with the ground. Equipment will be inspected daily for potential leakage or failures.

- **Emergency Release Response Procedures:** The construction contractor would prepare an Emergency Release Response Plan ("ERRP") detailing the response to releases of hazardous materials. The ERRP would be prepared prior to the start of construction activities at Project 1. The ERRP would prescribe hazardous materials handling procedures for reducing the potential for a release during construction activities, and would include an emergency response program to ensure the rapid and safe cleanup of any accidental spills. All hazardous material spills of threatened release would be immediately reported. All construction and operations personnel would be aware of federal, state, and local emergency response reporting guidelines. Implementation of the aforementioned hazardous materials and hazardous waste management programs would reduce the potential impacts associated with the handling, transport, and use of hazardous materials during both construction and operation of Project 1 to less than significant levels. **(DEIR at 4.8-12)**.

If lead based paint is found during construction of Project 1, the Applicant would comply with County requirements and provide a copy of the qualifications/license of the lead based paint abatement contractor that will perform the abatement or removal of lead based paint to the Department of Public Works Building and Safety Division and the County of Los Angeles Fire Department Health and Hazardous Materials Division. If required by the County, the Applicant would prepare and submit a Hazardous Building Materials Demolition Assessment and Management Plan to the Department of Public Works and Fire Department for review and approval to ensure compliance with all applicable federal, State, and local laws, and regulations. OSHA regulations are in place to assure that these materials are safely removed prior to or during demolition and renovation activities. In compliance with regulations requiring removals by firms and individuals licensed to do such work pursuant to applicable regulations the Project's potential impacts regarding lead exposure would be less than significant. Implementation of the aforementioned ERRP would reduce the potential impacts associated with upset and accidental release conditions at Project 1 (and gen-tie lines) to less than significant levels. **(DEIR at 4.8-13)**.

Project 1 would convert sunlight directly into electrical energy without the creation of hazardous emissions, and no impact to sensitive land uses would occur as a result of hazardous emissions. The primary emissions created by Project 1 (and gen-tie lines) would be air emissions from vehicle and equipment exhaust generated during construction activities. Potential impacts due to air emissions created during construction and maintenance activities at Project 1 would be less than significant, as discussed in Section 4.3 of the DEIR. **(DEIR at 4.8-13)**.

Based on the Environmental Data Review ("EDR"), the location of Project 1 and the Project 1 gen-tie line is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5. The location of Project 1 was indicated to contain a 500 gallon underground storage tank ("UST"). Prior to the start of construction activities at Project 1, a Phase I Environmental Site Assessment ("Phase I ESA") would be conducted to evaluate the potential hazards associated with the previously abandoned UST located at the Project 1 site. A closure permit for the UST will be verified or obtained from the Los Angeles County Fire Department, Health Hazardous Materials Division. Based on the information compiled in the Project 1 EDR, potential Project 1 impacts due to site hazards to the public and environment would be less than significant. **(DEIR at 4.8-14)**.

Project 1 and gen-tie lines are not located within an airport land use plan area or within 2 miles of a public use airport. Therefore, Project 1 would have no impact on public use airports. **(DEIR at 4.8-15)**. Project 1 is located approximately 2 miles northwest of the Little Buttes Antique Airfield Airport, which is a privately-owned dirt airstrip. Little Buttes Antique Airfield Airport has not adopted a land use plan. Project 1 is not expected to significantly alter surrounding land use or result in the construction of features greater in height than those already present in the surrounding areas. The solar generating facilities would introduce minimal amounts of glare to the existing landscape. The PV modules are designed to absorb sunlight, and the glass modules that protect the PV surface are typically formulated glass designed to allow sunlight to pass with minimal reflection. As stated in DEIR Section 4.1 Aesthetics, construction activities would be limited to daylight hours and any lighting that may occur would be in compliance with the requirements of the Los Angeles County Rural Outdoor Lighting District Ordinance. Therefore, the Project 1 impacts on people residing or working in the vicinity of a private airstrip would be less than significant. **(DEIR at 4.8-16)**.

Emergency response and evacuation procedures for Project 1 would be coordinated by the Los Angeles County Sheriff's Department ("LACSD") and the Los Angeles County Fire Department ("LACFD"). During Project 1 construction activities, the LACSD and LACFD require that adequate vehicular access be provided and maintained. The Traffic Control Plan for Project 1 would provide for the required access of emergency vehicles during construction activities. During operation of Project 1, Project operation staff would work with both the LACSD and the LACFD to ensure adequate emergency procedures are in place. The HMBP would include an Emergency Response Plan. Additionally, an Emergency Action Plan and a Fire Prevention Plan would be prepared for Project 1 as required by Cal/OSHA. These plans would ensure that Project 1 would have established plans and procedures for responding to emergency situations, and would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, Project 1 impacts to emergency

response plans or emergency evacuation plans would be less than significant during both construction and operations. **(DEIR at 4.8-17)**.

Project 1 is not located within a Very High Fire Hazard Severity Zone. No impact would occur in this regard. **(DEIR at 4.8-17)**. A public water system for fire control does not exist near Project 1. The facility design includes a dedicated 10,000-gallon fire water storage tank to be installed and maintained at Project 1, in compliance with LACFD Regulation 19 and other applicable Fire Department water tank specifications. Because the SGF design includes a dedicated fire water tank meeting Fire Department requirements, the water and pressure would meet fire flow needs. Therefore, impacts would be less than significant. **(DEIR at 4.8-18)**.

Project 1 is surrounded by rural agricultural lands with no industrial uses, manufacturing uses, or other particularly high fire hazard uses in the vicinity. Project 1 would comply with all applicable Fire Code and County and City ordinance requirements, and fire safety standards, as stated in DEIR Section 4.12 Public Safety. A Fire Management Plan, which would be prepared for Project 1, establishes standards and practices that would minimize the risk of fire and, in the event of fire, provide for immediate suppression and notification. Therefore, a less than significant impact would occur. **(DEIR at 4.8-18)**.

Project 1 will convert sunlight into electrical energy through a process which would not constitute a fire hazard. All materials and equipment used in the construction of each facility would be specified based on applicable codes and building regulations. Welding activities may also potentially result in the combustion of brush and vegetation. A Fire Protection and Prevention Plan would reduce these potential impacts to less than significant. A Fire Prevention Plan would be prepared for Project 1 as required by Cal/OSHA, and Project 1 would include a dedicated 10,000- gallon fire water storage tank in compliance with LACFD Regulation 19. Therefore, Project 1 does not constitute a potentially dangerous fire hazard, and would have a less than significant impact on fire hazards in the area. **(DEIR at 4.8-19)**.

Project 1 impacts related to Hazards and Hazardous Materials are further reduced with the adoption of the following feasible mitigation measures:

HH-1 Prior to the start of construction activities, a Hazardous Materials Management and Hazardous Waste Management Plan shall be implemented for each project.

HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.

HH-3 Prior to the start of construction activities on the parcel containing the historic UST at the location of Project 1, a Phase I ESA will be completed. This mitigation measure only applies to Project 1.

HH-4 Prior to the start of construction activities, a closure permit for the UST will be verified or obtained from the Los Angeles County Fire Department, Health Hazardous Materials Division. This mitigation measure only applies to Project 1.

HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated.

2.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Project 1 would have a potentially significant impact on Hydrology and Water Quality if it would: violate any water quality standards or waste discharge requirements; 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; 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; 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; 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; generate construction or post-construction runoff that would violate applicable stormwater National Pollutant Discharge Elimination System ("NPDES") permits or otherwise significantly affect surface water or groundwater quality; 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); result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance; 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); otherwise substantially degrade water quality; 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; place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain; 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; or place structures in areas subject to inundation by seiche, tsunami, or mudflow.

Finding:

Changes or alterations have been required in, or incorporated into Project 1 which mitigate or avoid the potentially significant environmental effects related to Hydrology and Water Quality.

Facts Supporting the Finding:

A Notice of Intent form would be submitted to the State Water Resources Control Board ("SWRCB") to apply for coverage under the NPDES General Permit for construction of Project 1. During construction, Project 1 would implement BMPs as specified in the site-specific SWPPP. The SWPPP would be developed by a State of California certified Qualified SWPPP Developer ("QSD") and during construction monitored by a State of California certified Qualified SWPPP Practitioner ("QSP"). The SWPPP would be approved by the County and uploaded to the State via the State SMARTs system prior to Project 1 ground-breaking. The SWPPP would identify construction-phase BMPs to be implemented. With implementation of the BMPs, Project 1 and its associated gen-tie lines would only have the potential to generate less than significant effects on groundwater and/or stormwater runoff, and will not violate any water quality standards or waste discharge requirements during construction. **(DEIR at 4.9-34; 4.9-38)**.

During Project 1 operations, mechanical equipment on the solar farm would either be made of pollutant free materials or fitted with special containment units to house any possible drips or spills of lubricants, oils, or other chemicals. Maintenance activities, including solar array washing, would be performed with clean water and allowed to evaporate or drip to the ground. Maintenance and operations personnel would be required to maintain all necessary spill prevention, control, and countermeasures on hand during site visits. These spill response kits would include, but are not limited to, personal protective equipment, spill pads, absorbents, booms, shovels, garbage bags, plastic sheeting, and disposal drums. Permanent treatment BMPs would include infiltration basins to preserve water quality. With these spill prevention, control, and countermeasures on-site, there would be a less than significant impact on groundwater and stormwater runoff quality, and Project 1 will not violate any water quality standards or waste discharge requirements during operation. **(DEIR at 4.9-34; 4.9-38).**

As stated in Section 4.14.5 of the DEIR, water would be required for dust control measures during the duration of construction efforts. An analysis of the water supply, including the use of well water, is presented in DEIR Section 4.14 Utilities and Service Systems. At the outset of construction, water would be supplied via truck to meet the demands of Project 1. Well water is not considered available at this time, and would be reevaluated upon a change in status. The demands of Project 1 are anticipated to have a less than significant impact on the region's groundwater supplies. Furthermore, construction activities are not anticipated to interfere substantially with groundwater recharge. As stated in Section 4.14.5 of the DEIR, water may be required in the first few years of operation to establish the mature vegetation planted after construction. Similar to the construction period, water would be supplied via truck to Project 1. The volume of water required would be considerably less than the water required for construction activities. Well water would be considered if its availability changes. As with construction, impacts to the region's groundwater supplies are anticipated to be less than significant with operation of Project 1. Also, the effect on groundwater recharge by the development's increase in impervious surface will be mitigated by the proposed infiltration basins. These infiltration basins will allow the increase in runoff volume from the proposed development (up to the 25-year storm event) to infiltrate on-site and recharge the groundwater basin. Therefore, less than significant impacts to groundwater recharge are anticipated. **(DEIR at 4.9-35)**.

During construction of Project 1 and its associated gen-tie lines, soils would be disturbed through activities such as minor grading and vegetation removal, which could lead to issues with soil erosion and siltation on- and off-site. Through the implementation of construction control measures per California Association of Stormwater Quality Agencies ("CASQA") standards (silt fencing, fiber rolls, and sandbag barriers), Project 1 would have less than significant impacts on erosion and debris deposition during construction (CASQA 2003). Project 1 and its associated gen-tie lines would require minor grading on-site which would not drastically change the existing drainage patterns or natural channels. Best Management Practices and the Hydrology Study/Drainage Concept/Standard Urban Stormwater Mitigation Plan ("SUSMP")/Low Impact Development ("LID") Reports would help account for the increase in runoff erosion capabilities resulting from the developments' increase in impervious surfaces. The infiltration basins would help reduce flow velocities and the sediment load of the runoff, which would lower the erosion and siltation capabilities of the runoff. Therefore, Project 1 would result in less than significant impacts to erosion and siltation on- and off-site. **(DEIR at 4.9-36)**.

Project 1 and its associated gen-tie lines would require minor grading on-site, which would not drastically change the existing drainage patterns or natural channels. The increase in runoff flow rates and volumes from the developments' increase in impervious surfaces would be addressed by Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to pre-development flow conditions before leaving the project site. With this measure, less than significant impacts would occur related to flooding on- and off-site. **(DEIR at 4.9-36)**.

Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would address the increase in runoff flow rates and volumes from the developments' increase in impervious surfaces. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to predevelopment flow conditions before leaving the Project site. The basins would be placed within the first half of the site to allow flows over the roads sections enough time to normalize before leaving Project 1. Project soils would treat the captured runoff at the infiltration basins. Therefore, less than significant impacts to existing or planned stormwater drainage systems are anticipated. Also, significant impacts to polluted runoff are not anticipated. **(DEIR at 4.9-36)**.

Project 1 and its associated gen-tie lines would incorporate Los Angeles County LID standards, while following the requirements of the Los Angeles County Department of Public Works ("LACDPW"). Existing on-site drainage patterns and channels would not be significantly altered by the Projects' minimal grading, and all off-site drainage patterns and channels would not be significantly impacted either. Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would allow the developments' increase in runoff (up to the 25-year storm event) to be both infiltrated and treated on-site. This also minimizes downstream impacts by returning to predevelopment flow conditions. Therefore, Project 1 will not conflict with the Los Angeles County Low Impact Development Ordinance. **(DEIR at 4.9-38)**.

Project 1 and its associated gen-tie lines are not in the vicinity of any SWRCB-designated Areas of Special Biological Significance. Therefore, no impacts are anticipated. During construction, wastewater treatment systems would not be necessary. The Projects would contract services to supply and maintain portable toilets. Therefore, the impacts of Project 1 to the quality of groundwater and surface water would be less than significant during construction. The same portable toilet services would be contracted for operations. Temporary portable toilet services would be delivered during the required maintenance periods on an as needed basis. As a result, there would be less than significant impacts to the water quality of groundwater and surface water during Project 1 operations. **(DEIR at 4.9-39)**.

Project 1 does not involve the construction of housing. Therefore, no housing will be placed within a 100-year flood hazard area, and no impacts are anticipated. **(DEIR at 4.9-39)**.

Project 1 is not located within a 100-year flood hazard area, floodway, or floodplain, or within the immediate vicinity of any levees or dams which would place people or structures at risk of significant loss, injury or death in the event of a failure. In the event of a failure of the aqueduct near Project 1, the distance between the site and the aqueduct would allow the flow to dissipate. Therefore, less than significant impacts are anticipated. The slopes of the Project 1 site are very mild, with slopes of less than 2 percent. Therefore, high mudflow conditions are not anticipated, and any mudflow conditions are expected to have a less than significant impact. Accordingly, Project 1 will not place structures in an area subject to inundation by seiche, tsunami or mudflow. **(DEIR at 4.9-40)**.

Project 1 impacts related to Hydrology and Water Quality are further reduced with the adoption of the following feasible mitigation measures:

HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be available at each project site and a log kept to show education has occurred prior to the start of construction.

HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-3 No hazardous materials are anticipated to be stored on-site. If hazardous materials are required to be stored on-site, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code and store the materials according to applicable regulations. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance with the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often to prevent containers from overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.

2.10 LAND USE AND PLANNING

Potential Effect:

Project 1 would have a significant effect related to Land Use and Planning if it would: physically divide an established community; be inconsistent with 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; be inconsistent with the zoning ordinance as applicable to the subject properties; or conflict with Hillside Management criteria, Significant Ecological Areas conformance criteria, or other applicable land use criteria.

Finding:

Project 1 will not have a significant effect on the environment related to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

Project 1 is located within a sparsely populated area, and is not located within any established community. Project 1 is located in an area that has been characterized by agricultural uses for several decades, and has been in transition to residential uses or vacant land. Project 1 would not physically alter the community, would not divide any community, or change any public access routes to them. Impacts would be considered to be less than significant. Likewise, Project 1's proposed gen-tie lines would not result in physical improvements that would result in dividing an established community, and the proposed gen-tie line would be located within a public right-of-

way or an easement on private land. Therefore, Project 1 would not divide an established community, and impacts would be less than significant. **(DEIR at 4.10-36)**.

Project 1 is not located within the boundaries of a Community Standards District; therefore, no district development standards apply to Project 1. The Antelope Valley Areawide General Plan designates the Project 1 site as N-1, Non-Urban use. According to the Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations (County of Los Angeles 1986). Project 1 is considered a utility installation, and therefore would be consistent with the N-1 land use designation. As a result, Project 1 would be consistent with the General Plan Land Use designation. Development of Project 1 will be consistent with permissible uses associated with the land use designation and the policies, goals, and objectives outlined in the Los Angeles County General Plan and the Antelope Valley Areawide General Plan, and will not be inconsistent with any applicable County plan. **(DEIR at 4.10-36)**.

The gen-tie lines for Project 1 are linear infrastructure that would not result in any changes to the existing land use patterns in the area of Project 1. The gen-tie lines would be located underground within Los Angeles County to the extent practicable, and aboveground within the City of Lancaster, either in a public road ROW or on private lands adjacent to the public road ROW. Within the City of Lancaster, the gen-tie line routes would traverse land use designations "NU" Residential and "UR" in the City of Lancaster. According to the County's Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations. Additionally, the City's NU land use designation permits solar generating facilities and utility installations within its designation. In July 2013, the City approved a General Plan Amendment for the UR designation to NU designation for another applicant's solar project that the gen-tie line would traverse to connect to the Antelope Substation. A franchise agreement will be obtained by the Applicant with the City of Lancaster for the gen-tie line that will traverse through this jurisdiction. This agreement will grant a utility franchise and right of way privileges for the proposed gen-tie line. Therefore, no impact to County and City Plans would occur**.** Project 1 would not be located within the Fox Airfield's airport influence area. Therefore, this Plan is not applicable to Project 1, and there would be no impacts. **(DEIR at 4.10-37)**.

The County's CUP entitlement process involves the discretionary review of a project, whereby conditions of approval for Project 1 would be assigned. A CUP Burden of Proof is required to be submitted to determine Project 1's consistency with the General Plan, compatibility with surrounding land uses, conditions to ensure compatibility, land suitability and physical constraints, project design, availability of adequate access, public services and facilities to serve the development, and identify potential environmental impacts and mitigation measures. As shown in DEIR Tables 4.10-1, 4.10-2, and 4.10-3, Project 1 is consistent with County land use designations and compatible with adjacent and surrounding land uses. (DEIR at 4.10-43). The implementation of the environmental mitigation measures and CUP conditions would be expected to minimize Project 1's potential impacts, such that the Project could occur while maintaining zoning compliance within the designated zone. As a result, Project 1 would be consistent with the County's zoning designations. Permitting processes for those portions of the gen-tie lines located in the City of Lancaster would require necessary approvals from the City. Compliance with applicable City zoning regulations and conditions would ensure consistency with City's zoning designations. **(DEIR at 4.10-38)**.

Project 1 and lands adjacent to its associated gen-tie line ROW are zoned Light Agriculture (A-1), which does not permit electric generating facilities within this zone. A zone change from A-1 to Heavy Agriculture (A-2) is part of the County approvals. Under the jurisdiction of the County of Los Angeles, electric generating plants and transmission lines are allowed in A-2 zones with issuance of a CUP. The proposed Project 1 gen-tie line would be constructed underground within Los Angeles County unless other applicable regulations require above-ground installation. The gen-tie line would be located on private lands adjacent to the public road ROW or within the public road ROW. It is a linear component that would not result in any changes to the existing land use patterns in the area, and would be permitted as part of the CUP. As discussed above, a CUP for the Project would be required by the County of Los Angeles under the A-2 zoning designation. Therefore, Project 1 and the associated gen-tie line would result in a less than significant impact relative to the subject proposed A-2 zoning in Los Angeles County. **(DEIR at 4.10-38)**.

As discussed in DEIR Section 4.4 Biological Resources, Project 1 and its associated gen-tie lines are not located within a designated SEA; therefore, SEA conformance criteria do not apply. Additionally, no local community conservation plans that could contain applicable land use criteria apply to Project 1 or its associated gen-tie lines. Project 1 would not be located within a Hillside Management Area, and would not conflict with any Hillside Management criteria. **(DEIR at 4.10-39)**.

Project 1 is located within an Agricultural Opportunity Area, as discussed in Section 4.2 of the DEIR. Project 1 would generate electrical power through renewable solar PV technology which is an allowable use with a CUP and where necessary, a zone change. Project 1 would involve conversion of land that was formerly used for agricultural production to renewable energy production. Construction and operation of Project 1 would not involve other restrictions, obstructions, or resources that could result in conversion of farmland to nonagricultural use. Additionally, Project 1 would be located on fallow land that is currently not irrigated, with surrounding parcels being mostly undeveloped and fallow agricultural land. Project 1 would produce power in a passive manner and would result in minimal air emissions, traffic, and noise, and would not affect adjacent agricultural operations. Therefore, a less than significant impact would occur. **(DEIR at 4.10-40)**.

Project 1 contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as discussed in DEIR Section 4.2 Agriculture and Forestry. Therefore, Project 1 will have no impact to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. **(DEIR at 4.10-40)**. Project 1 is not located within a Noise Management Area. **(DEIR at 4.10-41)**.

Project 1 and its associated gen-tie lines are located within the 500-year floodplain Zone X (Unshaded). These areas are known to be of a very low flood risk. All of the Project 1 area would be developed, and measures would be taken in the design of the site's solar panels to account for the flood hazards. Therefore, a less than significant impact would occur. **(DEIR at 4.10-41)**.

2.11 NOISE

Potential Effect:

Project 1 would have a significant Noise impact if it would: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the project; result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or, for a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Finding:

Changes or alterations have been required in, or incorporated into Project 1 which mitigate or avoid the potentially significant environmental effects related to Noise.

Facts Supporting the Finding:

Sound generated from Project 1 would consist of: (1) short duration sounds resulting from construction activities, and (2) sound during normal facility operations. Vibration from Project 1 would only result during construction. Construction activities would take place only during daytime hours. An evaluation of expected noise and vibration levels was performed, and the ability of Project 1 to comply with applicable noise requirements was assessed.

For Project 1, the following criteria were determined to be inapplicable or to result in no impact:

- Exposure of on-site workers to noise levels that exceed occupational safety standards (90 dBA as a time-weighted 8-hour average or peak noise levels above 115 dBA).

- Exposure of residents to airport or private airstrip-related noise levels above a CNEL of 65 dBA.

Occupational noise exposure is governed by federal and state regulations. Cal/OSHA administers industrial safety regulations in California. Cal/OSHA regulations establish a time-weighted noise exposure limit of 90 dBA averaged over 8 hours (CCR, Title 8, Article 105). Noise source controls, administrative procedures, or worker hearing protection must be provided if worker noise exposure would exceed the 90 dBA limit. The construction contractor selected for the Project would be required to follow Cal/OSHA requirements for construction worker noise exposure. **(DEIR at 4.11-25)**.

Project 1 construction would take place between the third quarter of 2014 and the second quarter of 2015. Sound from construction equipment would vary dependent on the construction phase and the number and class of equipment at a location at any given time. **(DEIR at 4.11-26)**. Prior to commencement of construction, Project 1 will be required to obtain a variance from the County's noise ordinance (as described under Section 12.08 of the Los Angeles County Code), because the pile driving will last for more than ten days. Generally, construction sound would attenuate with increased distance from the sound sources. Actual received sound levels would fluctuate, depending on the construction activity, equipment type, and separation distances between source and receiver. Construction noise is a temporary noise source that would only occur during daytime hours. Sound levels from construction are expected to be comparable to sound produced by farm machinery, such as equipment used in nearby agricultural fields. Worst case construction noise levels for the nearest residence would last no more than a few weeks, as construction activities progress across Project 1. Therefore, no one residence would be exposed to significant noise levels for any extended period of time. **(DEIR at 4.11-27)**.

Traffic noise generated during construction of Project 1 on and offsite would temporarily add to overall sound levels. As a general construction practice, functional mufflers would be maintained on all equipment to maintain noise levels as low as reasonably achievable. The Project 1 Applicant would make reasonable efforts to minimize noise resulting from construction activities, as described in Mitigation Measures N1- N6. With implementation of these measures, including the use of sound curtains or barriers during pile driving, construction sound levels would be less than significant. **(DEIR at 4.11-27)**.

Like noise from pile driving, vibration from pile driving would only last for a few weeks at most, and would move throughout the Project rapidly with no single noise sensitive receptor experiencing the peak 0.04 PPV for more than an few hours, and would not damage structures. Therefore, exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels due to the construction of Project 1 and the gen-tie line will be less than significant. **(DEIR at 4.11-48)**.

Little Buttes Antique Airfield is two miles from Project 1, and Skyotee Ranch Airport is located 4.6 miles from Project 1. Both have very low use levels. No airfield noise contours have been developed for Little Buttes Antique Airfield and Skyotee Ranch Airport, but due to low operation levels and distance from the airports, sound levels at both airfields are assumed to be below 55 dBA CNEL. Project 1 would not create residential land uses, and all Project features are outside the airfield properties. Consequently, there are no impacts from airport-related noise. **(DEIR at 4.11-51)**.

Project 1 impacts related to Noise are further reduced with the adoption of the following feasible mitigation measures:

N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.

N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.

N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.

N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.

N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.

N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.

N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest noise sensitive receptor are predicted to be above the County construction noise limit of 60 dBA during the day. With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may need to incorporate appropriate mitigation measures, including:

N-8 Siting substations to achieve National Electrical Manufacturers Association ("NEMA") sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project:

- Project 1 – 325 feet with a NEMA sound rating of 74 dBA

N-9 The Applicant shall use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.

2.12 PUBLIC SERVICES

Potential Effect:

Project 1 would have a significant impact on Public Services if it would 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 fire protection; sheriff protection; schools; parks; libraries, or other public facilities.

Finding:

Project 1 will not have a significant effect on the environment related to Public Services. No mitigation is required.

Facts Supporting the Finding:

Project 1 is located within the LACFD Battalion 11 service area. Station 112, which is 3.8 miles southeast of Project 1, is the jurisdictional station (i.e. the first-responder) to respond to incidents at the site. Additional fire stations within Battalion 11 (identified in Table 4.12-1) would also potentially be dispatched to respond to fire protection needs at the site.

During construction, workers would be temporary and would not be expected to relocate to the Project 1 area as they would mostly be hired from the available local workforce and would not be expected to result in significant changes to the local population; therefore, the construction of Project 1 is not anticipated to create significant changes to the local population that would increase the level of demand on fire protection services or that would increase the level of demand on the fire department services such that additional staff would be needed. **(DEIR at 4.12-6)**.

As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 1 would not result in significant traffic impacts. However, Project 1 would involve construction of an underground 0.54-mile gen-tie line along West Avenue B and an underground 0.02 mile gen-tie across 110th Street West. Transmission line construction would require work in the public road ROW, including limited encroachment into the traveled roadway. It is anticipated that the construction of the Project 1 gen-tie lines would only require partial street closures, which provide better emergency access than full street closures. Approvals for Project 1 will require worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts to West Avenue B and 110th Street West. Additionally, the LACFD Fire Stations 112, 130, and 78 would be notified at a minimum of three days in advance of any street closures that may affect fire/paramedic responses in the area. In the event that the Project 1 gen-tie line construction would require road closures, alternate route details (detour plans) and the schedule of closures would be submitted to the LACFD prior to construction. Implementation of Mitigation Measure TT-3 would minimize potential effects to West Avenue B and 110th Street West, such that the impact to LACFD access and response times would be less than significant. **(DEIR at 4.12-6)**.

Based on the Applicant's commitment to conformance of construction activities at the Project 1 site and gen-tie line ROW to federal, state, and Los Angeles County ordinances for fire protection, and implementation of mitigation related to Hazards and Hazardous Materials, construction would not be expected to result in significant special fire problems or hazards. Additionally, construction traffic at the site would not be anticipated to have a significant impact on local intersections and road segments. Therefore, Project 1 impacts to LACFD service ratios, response times, or other performance objectives for fire protection would be less than significant. **(DEIR at 4.12-6)**.

Operations activities at Project 1 would typically be associated with routine maintenance carried out on-site and along the associated gen-tie ROWs at periodic intervals by a small maintenance crew. These activities would not result in effects to LACFD service ratios, response times, or other performance objectives for fire protection during operations of Project 1; therefore, impacts would be less than significant. In addition, the Applicant would be required to pay taxes as per the Proposition E Special Tax and property tax assessments, which are allocated to the LACFD. These taxes are designed to provide for potential increases in LACFD fire protection service demands to accommodate for new and existing developments. **(DEIR at 4.12-11).**

The Project 1 site is located within the LACSD Field Operations Region 1 service area. The Lancaster Station, which is approximately 12.4 miles southeast of Project 1, would likely be the first responder to incidents at the site. Currently the station maintains an officer-to-population service ratio of approximately 1 to 1,000. Project 1 does not involve any residential uses, and would not be considered to result in significant increases to population. During construction, workers would be temporary, and would not be expected to relocate to the area as they would mostly be hired from the available local workforce. The employees are planned to be hired from the available local workforce, and would not be expected to result in significant changes to the local population that would increase the level of demand on law enforcement services. **(DEIR at 4.12-11)**.

Sheriff services potentially required at Project 1 would likely include incidents of vandalism or theft. While these incidents would require sheriff services, they are not considered emergency response incidents, and as such would not affect emergency response times. As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 1 would not result in significant traffic impacts. However, Project 1 would involve construction of an underground 0.5-mile gen-tie line on West Avenue B and an underground 0.02 mile gen-tie across 110th Street West, which may require work in the public road ROW, and may potentially encroach into the traveled roadway. As a result, it is proposed to require worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts to West Avenue B and 110th Street West. Implementation of this would be expected to minimize potential effects to West Avenue B and 110th Street West such that the impact to LACSD access and response times would be less than significant. As a result, construction of Project 1 would be expected to result in less than significant effects to LACSD services and response times, such that Project 1 would not require additional LACSD staffing. Therefore, impacts from the construction of Project 1 to LACSD service ratios, response times, or other performance objectives for sheriff protection would be less than significant. **(DEIR at 4.12-11)**. Likewise, impacts to LACFD service ratios, response times, or other performance objectives for sheriff

protection during operations of Project 1 and its associated gen-tie lines are expected to be negligible. **(DEIR at 4.12-15)**.

Project 1 and its associated gen-tie lines do not include residential development or the influx of long-term workers from outside the area, and accordingly would not generate population growth. Consequently, no new demands on school facilities, parks, library facilities or other public facilities are expected, and no impact would occur to these facilities. **(DEIR at 4.12-15; 4.12-16)**.

2.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Project 1 would have a significant impact on Transportation and Traffic if it would: 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; conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks; substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); result in inadequate emergency access; or conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Finding:

Changes or alterations have been required in, or incorporated into Project 1 which mitigate or avoid the potentially significant environmental effects related to Transportation and Traffic.

Facts Supporting the Finding:

Traffic generated during the construction phase of Project 1 and its gen-tie line would include construction worker commuter trips, water truck trips, and delivery truck trips. Construction worker commuter trips and delivery truck trips are anticipated to arrive to the Project 1 site outside of peak hours. It is anticipated that 30 percent of water trucks would arrive to the Project site during the AM peak hour. Project 1 would have an average of 75 workers per day and a peak of 100 workers per day over a 20-day period during construction. For equipment and materials, Project 1 would have an average of 4 delivery truck trips per day with an expected peak of 26 delivery truck trips. It is anticipated that construction workers and delivery trucks would arrive to the Project 1 site outside of peak hours. **(DEIR at 4.13-28)**.

Dependent upon climatic conditions during construction, the maximum estimated water use for the Project 1 site is 50 acre-feet for Phase 1, and 50 acre-feet for Phase 2, which would be

obtained from an off-site provider. Potable water would be brought in to the Project 1 site for drinking and domestic needs. During the site preparation and site preparation activities, water would mainly be used for soil compaction and control of fugitive dust generation. Smaller quantities of water would also be required on an as-needed basis for preparation of the concrete required for foundations and other minor uses. Subsequent to these construction activities, water usage would primarily be used for on-going dust suppression associated with the remaining construction of Project 1. Project 1 would require a total of 10 daily water truck trips arriving on-site. Assuming that 30 percent of the water trucks would arrive on-site during the AM peak hour (7:00 AM), 3 water trucks would be used in this analysis. As shown in DEIR Tables 4.13-13 and 4.13-14, during the AM peak hour the local roads would experience a maximum increase in traffic volume of 18.75 percent. This is mainly due to the existing low volume and low peak traffic conditions for these roads, which are located in rural areas and operate well below the existing capacity of 1,600 vehicles per lane per hour for a 2-lane road. Therefore, these roads have adequate capacity to safely accommodate the increase from Project 1 water truck traffic, and would have a less than significant impact on the existing traffic conditions. **(DEIR at 4.13-28)**.

During construction of gen-tie lines associated with Project 1, it is anticipated that temporary, one-lane road closures would be necessary. A Project Traffic Plan would be prepared to address the temporary one-lane road closures and submitted to the County for approval prior to issuance/approval of the County Grading Permit as indicated in Mitigation Measure TT-2. Parking, temporary office trailers, and construction and PV equipment lay-down areas would be located entirely within the Project 1 site boundary. The construction impacts would be temporary and less than significant with mitigation. **(DEIR at 4.13-29)**.

The operational phase of Project 1 is anticipated to only generate an average of 2 additional vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a maximum of 10 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis for the water truck trips described above, the operational phase vehicle trips are considered negligible. Therefore, no additional post-construction operational analysis was conducted. The operational phase of Project 1 would have a less than significant impact on the traffic and/or transportation infrastructure. **(DEIR at 4.13-29)**. Project 1 would not conflict with any applicable congestion management programs during the construction or operational phases. **(DEIR at 4.13-39)**.

Air traffic would not be impacted by implementation of Project 1. Project 1 would not include any buildings, structures, or other operations that would result in a change in existing air traffic patterns. The PV modules that would be used at Project 1 would be non-reflective, and would not pose a hazard to air traffic. Gen-tie line components would be below the height limit and would not result in a change in existing air traffic patterns. Therefore, impacts would be less than significant. **(DEIR at 4.13-39)**.

No existing roads would be altered by Project 1, and Project 1 does not include design features or uses that would substantially increase any hazards. Parking, temporary office trailers, and construction and PV equipment lay-down areas would be located entirely within the Project 1 site boundary. Only temporary one-lane road closures are expected for the construction of the Gen-tie Lines. A Project Traffic Plan would be prepared to address the temporary one-lane road

closures and submitted to the County for approval prior to issuance/approval of the Grading Permit. Therefore, Project 1 would not result in inadequate emergency access. Project 1 is located in rural areas of Los Angeles County and would not significantly decrease the performance or safety of public transit, bicycle, or pedestrian facilities. **(DEIR at 4.13-40)**.

Project 1 impacts related to Transportation and Traffic are further reduced with the adoption of the following feasible mitigation measures:

TT-1 Prior to issuance of a grading permit, Applicant shall document and submit all required information and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.

TT-2 Prior to any construction activities and/or issuance of required encroachment permits from Los Angeles County, the Applicant shall prepare worksite traffic control plans for review and approval from LACDPW and other affected agencies for any closures, partial closures of public streets, or work within or adjacent to the road right-of-way that impacts the movement of traffic. The Plans shall be prepared in accordance with the California Manual on Uniform Traffic Control Devices (2012).

TT-3 Additionally, the County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-000798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.

TT-4 Stagger construction work shifts before or after peak traffic hours.

TT-5 Schedule truck deliveries during off peak hours.

TT-6 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips. All other trips shall be at off peak hours.

TT-7 Prior to start of construction activities, Applicant shall provide worker education encouraging carpooling and vanpooling by workers and shall provide assistance for organizing vanpools and carpools. A log will be developed to show compliance.

2.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Project 1 would have a significant impact on Utilities and Service Systems if it would: exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards; 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; 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; not 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; 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; be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or 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.

Finding:

Project 1 will not have a significant effect on the environment related to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

The construction of Project 1 and its associated gen-tie lines would generate temporary and limited wastewater as a result of on-site construction workers. The wastewater generated would be collected at the on-site mobile sanitation facilities and then transported to a nearby wastewater disposal facility. In the event that additional wastewater is generated from construction activities, water would be stored in an on-site tank system and would be disposed of at an approved wastewater treatment facility. Construction and operational wastewater will be limited in quantity and significantly below wastewater treatment requirements of Los Angeles County and the RWQCB. **(DEIR at 4.14-14)**.

All wastewater would be treated according to the treatment requirements enforced by the NPDES permit authorized by the Lahonton Regional Water Quality Control Board ("LRWQCB"). Additionally, semi-annual washing of the PV modules would generate minimal wastewater during operation. However, since the wash water would only consist of demineralized water and dust washed off of the modules, it would not need to be treated at a wastewater treatment facility. This wash water would be allowed to infiltrate into the ground and evaporate as it drips off the PV modules. The wastewater generated from maintenance workers would be collected at the on-site temporary mobile sanitation facilities and then transported to a nearby wastewater treatment facility. Project 1 would not exceed the requirements of LRWQCB,

and therefore impacts would be less than significant. **(DEIR at 4.14-14)**. Likewise, construction and operation of Project 1 would not exceed the capacity of any treatment plant and would have no impact to a wastewater system. Consequently, no new wastewater treatment facilities would need to be created and no existing facilities would need to be expanded. The maximum construction water use of Project 1 is 100 acre feet, and the maximum operational water use of Project 1 is 2.9 acre feet per year. No water system capacity problems would be created and no new water systems or expansion of existing systems would be required. **(DEIR at 4.14-15)**.

Project Site 1 currently drains from west to east; the post-development condition would maintain this flow path. A SWPPP incorporating BMPs for temporary stormwater management would be prepared and approved before the construction of Project 1 and its gen-tie lines. The final design of Project 1 would allow the pre-development runoff amount to continue to sheet flow in the post-development condition to avoid disturbance to downstream drainage structures or wildlife. The design of Project 1 would eliminate the need for new drainage facilities or expansion of existing facilities. Therefore, Project 1 would have a less than significant impact on drainage facilities. **(DEIR at 4.14-18)**.

The construction for Project 1 and the Project 1 gen-tie lines would create a short-term temporary demand for water, primarily in association with dust control. The Applicant would provide a Dust Control Plan to the County prior to the start of construction activities. The plan would detail site-specific dust control measures designed to minimize water use during construction activities, while minimizing fugitive dust emissions. Project 1's maximum construction water use is 100 ac-ft, which is estimated for the span of approximately 5 months. The Project 1 site would have otherwise potentially required at least 624 ac-ft of water per year for agricultural use. Based on potential estimated historic groundwater use at the site, there may be adequate groundwater supply within the western portion of the Basin to meet Project 1's construction water needs. In addition, according to the Antelope Valley Integrated Regional Water Management Plan ("IRWMP"), groundwater is considered a reliable water source in the Antelope Valley Groundwater Basin.

However, given that the Adjudication will not likely be resolved during construction of Project 1, water for Project 1 would be supplied via truck from either Homer LLC, or the City of Lancaster, both of which have provided "Will Serve" letters indicating their ability to meet the water demands of Project 1. Homer LLC would provide out-of- Basin water stored in the Antelope Valley Water Bank. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**.

As previously discussed, the potential estimated historical agricultural water usage for the Project 1 site was determined to be at least 624 AFY. Project 1's maximum construction water use is 100 ac-ft over an approximately 5-month construction period, which equates to 92 percent less than the potential estimated historical annual agricultural groundwater usage at the site. Either of the sources noted above would have sufficient reliable water supplies available to serve the Project 1 construction demands from existing water source entitlements and water resources.

Therefore the impacts from water usage during construction would be less than significant. **(DEIR at 4.14-20)**.

During operations, the maximum water use for Project 1 would be 2.9 AFY. A maximum of 2.9 AFY of additional water may be needed in the first 2 years of operation to establish the plants for the landscaping buffer. It is unlikely but possible that additional water (up to 3 AFY) may be needed later during the operations phase for supplemental plantings if landscape vegetation expires and has to be replaced. As with the Project 1 water needs during construction, during operations Homer LLC would also provide out-of-Basin water stored in the Antelope Valley Water Bank. This option would provide a reliable source of water for operations. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**. Therefore, the impacts from water usage during operations would be less than significant. **(DEIR at 4.14-20)**.

Project 1 and its associated gen-tie lines do not require natural gas or propane during construction or operation; therefore there would be no system capacity problems for those utilities. Since natural gas and propane are not needed for Project 1, no new energy facilities would need to be created, and no existing facilities would need to be expanded. Project 1 may require electricity for the construction equipment and for lighting construction activities. The electricity would likely come from one of the existing SCE lines located on the west and south sides of the site. Electricity consumption during construction would be temporary, and would vary depending on the phase of construction. Overall, the construction of Project 1 would require limited electrical consumption that the existing electrical grid has capacity to serve. Therefore, Project 1 would have a less than significant impact on energy utility system capacity during construction. **(DEIR at 4.14-25)**.

Project 1 would also require electricity for ongoing maintenance operations, lighting, security systems, and other various operational needs. During daylight hours, the electricity needs for Project 1 would be supplied by Project 1's electricity generation. During non-daylight hours, the electricity needs for Project 1 would be provided by either backfeed from the electrical grid, through the proposed gen-tie, or through the existing SCE lines located on the west and south sides of the Project 1 site. Therefore, Project 1 would have a less than significant impact on energy utility system capacity. **(DEIR at 4.14-26)**.

Construction of Project 1 would require some earthwork, demolition of two existing buildings, removal of a broken-down structure, and installation of the SGF. Solid waste generated from construction of Project 1 and the Project 1 gen-tie lines may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty nonhazardous containers, and vegetation wastes. In accordance with Title 22 Chapter 22.52, 65 percent of construction and demolition debris would be recycled. Any material that cannot be recycled would be properly disposed of at a regional disposal facility. Any defective or broken solar modules would be returned to the manufacturer for recycling or recycled by the Applicant as possible. In accordance with Title 22 Chapter 20.87, the Applicant would prepare a Recycling

and Reuse Plan and progress reports to implement and document the Project's recycling practices. Therefore, Project 1 impacts on landfill and solid waste disposal capacity will be less than significant. Once the SGF is installed, there would be minimal waste generated during operations of Project 1, therefore Project 1 impacts on landfill and solid waste disposal capacity would be less than significant. **(DEIR at 4.14-26)**.

Non-hazardous waste generated during construction, operation, and decommissioning of Project 1 (and gen-tie lines) would be transferred by licensed waste hauling contractors and recycled or disposed of in compliance with local and state regulations. Hazardous wastes would be shipped offsite and treated or disposed in accordance with all applicable laws and regulations for hazardous waste management. The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 1. Project 1 would have no impact relative to compliance with existing federal or state regulations pertaining to solid waste, because Project 1 would be required to comply with all relevant regulations during construction, operation and decommissioning. **(DEIR at 4.14-27)**.

SECTION 3.0 FINDINGS REGARDING CUMULATIVE ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

Pursuant to Section 15130 of the CEQA Guidelines, the following findings and statements of fact identify potentially significant cumulative impacts and Project 1's incremental contribution to the impacts discussed in the Final EIR, in the context of the other five Projects and other cumulative projects. For the following environmental resource areas, Project 1's incremental effect is not cumulatively considerable, and no cumulatively significant impact will occur.

3.1 AESTHETICS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Aesthetics.

Finding:

Changes or alterations have been required in, or incorporated into Project 1, which mitigate or avoid significant environmental effects. Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Aesthetics.

Facts Supporting the Finding:

Individually, with mitigation, each of the six proposed SGF Projects can each be expected to have a less than significant impact on aesthetic resources. The Project sites comprise 987.1 acres, or 0.6 percent of the total area within the 5 mile radius. Within the 5-mile radius area, there are 20,909 acres of development listed by individual projects, as shown in DEIR Table 3-7. These

development projects, including the Applicant's Projects, comprise 12.6 percent of the area identified in DEIR Figure 3-5 and include solar projects, commercial projects, and residential projects.

From elevated viewpoints, the western Antelope Valley appears as a mosaic of agricultural lands, suburban developments, and open land. From a distance, the proposed SGFs would not appear dissimilar to agricultural fields or existing PV facilities in shape and size. The other solar and real estate developments proposed for the western Antelope Valley would not appear dissimilar to existing land use patterns. From level viewpoints, such as those along local roads, solar or residential/commercial developments would not be prominent unless the observer is directly adjacent to the facility. Because of the flat nature of the Antelope Valley landscape, developments would quickly become less prominent as the viewer travels away from them. In addition, the scenic character on the valley floor is generally low. Existing commercial, residential, and energy developments (including substations, high-voltage transmission lines, distribution lines, and generation facilities) are scattered throughout the valley.

A 12.6 percent level of increase in development within 5 miles of each of the Project sites is not anticipated to be significant from elevated or level viewpoints, because the proposed developments would appear similar to existing developments in the Antelope Valley, and cover only a very small portion of the land within 5 miles of each proposed Project site. Views of open desert lands would still exist, and the flatness of the landscape would limit the prominence of new developments with increasing distance.

The proposed Projects and other proposed projects within the cumulative impacts study area would be individually required to comply with the Los Angeles County General Plan goals and policies, and the Antelope Valley Area Plan policies, as well as applicable ordinances such as the Los Angeles County Rural Outdoor Lighting District Ordinance, as they are applicable to aesthetic resources, as identified in Section 4.1.3 of the DEIR. Any cumulative aesthetic impacts would be reduced to a level that is less than significant with mitigation by application of these regulations, and mitigation measures A-1 to A-5. **(DEIR at 4.1-114 to 4.1-115)**.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Cumulative impacts to Agriculture and Forestry Resources could occur in the event that Project 1, in conjunction with the six proposed SGF Projects and other cumulative projects results in the area results in a cumulatively significant loss of Important Farmlands or Williamson Act contracted lands.

Finding:

Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable law ordinances regulations and standards.

Projects 1 – 6 are located in a region with significant agricultural uses. However, the Antelope Valley has been historically and is currently limited by water costs and climate conditions. Cumulatively, the Projects would not develop land classified as Prime Farmland or Farmland of Statewide Importance. Project 4 is the only site that currently contains land designated as Prime Farmland and of Statewide Importance. As mentioned above, the DOC is in process of reclassifying Project 4 land currently mapped as Prime Farmland and Farmland of Statewide Importance to Grazing Land on the 2012 edition of the Important Farmland Map for Los Angeles County. The Projects would not be expected to contribute to the overall trend of conversion of agricultural lands to other uses in the Antelope Valley when considered together with other potential cumulative projects in the area. That said, it is contemplated that at the end of the anticipated 35-year life of Projects 1-6, the associated properties could be returned to agricultural use. The Projects' incremental contribution to cumulative agricultural impacts is considered less than significant. **(DEIR at 4.2-9)**.

3.3 AIR QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Air Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 1, which mitigate or avoid significant environmental effects to Air Quality. Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Air Quality.

Facts Supporting the Finding:

Twenty-nine related projects have been identified within the proposed Projects' vicinity; locations are listed in DEIR Figure 4.3-2, "Cumulative Projects in the Region". Of these 29 related projects, there are a number of related projects that have not yet been built or are currently under construction. Since the Applicant has no control over the timing or sequencing of the related projects, and the level of emissions that would be generated by the related projects is uncertain, it is infeasible and speculative to prepare a quantitative analysis to ascertain daily construction emissions that would occur under a worst-case scenario of all 29 related projects being constructed concurrently with the Applicant's six Projects.

For this reason, the AVAQMD was consulted to assess the cumulative impact resulting only from the Applicant's six Projects. The County's EIR consultant (Tetra Tech) met with AVAQMD officials and technical staff at the AVAQMD's office on May 29, 2012, and discussed the proper cumulative Air Quality analysis methodology for the Project pursuant to CEQA. **(DEIR at 4.3-48)**. AVAQMD determined that cumulative impacts from the Applicant's six Projects should be cumulatively quantified based on size, construction equipment per phase, and construction phase duration, and that the related projects should only be qualitatively discussed within the EIR. The cumulative Air Quality analysis was performed based on the direction from AVAQMD, and included the analysis of concurrent construction and operation emissions sources on any one maximum construction day, air dispersion modeling method, and risk assessment method. **(DEIR at 4.3-48)**.

As previously discussed in the analyses above (DEIR Table 4.3-13, "Peak Annual Construction Emissions"; DEIR Table 4.3-20, "Peak Annual Operation Emissions"; and DEIR Table 4.3-22, "Concurrent Health Risk Assessment"), emissions from overlapping construction phases of the Applicant's six projects would not exceed the AVAQMD thresholds on any maximum day or year during construction or operations. **(DEIR 4.3-30; 4.3-49)**.

With respect to the Project's construction-period air quality emissions and cumulative Basin-wide conditions, the AVAQMD has developed strategies to reduce criteria pollutant emissions outlined in the Air Quality Management Plan ("AQMP") pursuant to CAA mandates. As such, Project 1 would comply with AVAQMD Rule 403 requirements, and implement all feasible mitigation measures. In addition, Project 1 would comply with adopted AQMP emissions control measures. Per AVAQMD rules and mandates and the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects Basin-wide, which would include each of the related projects mentioned below. **(DEIR 4.3-49)**.

By applying AVAQMD's cumulative air quality impact methodology, implementation of Projects 1 – 6 would not result in an addition of pollutants, such that considerable cumulative impacts in conjunction with related projects in the region would occur. Therefore, the emissions of nonattainment pollutants and precursors generated cumulatively by Projects 1 – 6 would be less than significant. Projects are deemed inconsistent with air quality plans when they result in population and/or employment growth that exceeds growth estimates in the applicable air quality plan. The SGF sites would not conflict with or obstruct implementation of the applicable air quality plan, which in this case is the Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area). The Ozone Attainment Plan relies upon future year emission inventories consistent with California Air Resource Board ("CARB") and the adopted General Plan growth projections. As the proposed Projects are not part of an ongoing regulatory program, the AVAQMD recommends Project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed above, peak daily emissions of operation-related pollutants would not exceed AVAQMD significance thresholds.

The combined Projects' emission estimates state that while Projects 1 – 6 would generate air emissions during construction and a minimal amount of GHG emissions during operations, the

Projects' incremental contribution, with mitigation, to cumulative air quality impacts do not exceed any air quality significance thresholds and would comply with the applicable AVAQMD AQMP. It should be noted that solar energy provided by the Projects is a much cleaner source of energy than traditional sources used for the generation of electricity, such as the burning of coal, fuel oil, or natural gas. Furthermore, since the percentage of GHG emissions generated by Projects 1 – 6 is so small; Projects 1 – 6 would provide a *de minimis* contribution to significant cumulative impacts caused by other projects in the region (as further discussed in DEIR Section 4.7, Climate Change and Greenhouse Gas). The Projects' emissions of non-attainment pollutants and precursors generated during operations with mitigation would not exceed the AVAQMD Project-level thresholds and are less than significant. As a result, Project-level emissions would not result in a cumulatively considerable contribution, such that results in an increase in air pollutant emissions above those assumed in the regional AQMP. **(DEIR at 4.3-52)**.

3.4 BIOLOGICAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Biological Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 1, which mitigate or avoid significant environmental effects to Biological Resources. Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Biological Resources.

Facts Supporting the Finding:

The total area included in the map in DEIR Figure 3-17 showing a 5.0 mile radius outward from each of the Project 1 – 6 solar sites comprises 165,349 acres. Solar development in the area is 8,086 acres (4.9 percent of the 165,349 acres shown in DEIR Figure 3-17). The Silverado Projects cover 987 acres (only 0.6 percent of the total area). Open space and wildlife mitigation lands would be acquired and preserved in perpetuity for Projects 1 – 6. Since the mitigation lands are intended to comprise higher quality wildlife habitat than those impacted by the Projects, impacts will be mitigated. The permanent nature of the land mitigation and preservation program to be implemented would assure that these new wildlife habitat mitigation lands would always be maintained and enhanced for wildlife values. Therefore, cumulative impacts from the Project would be less than significant. **(DEIR at 4.4-71)**.

3.5 CULTURAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Cultural Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 1, which mitigate or avoid significant environmental effects to Cultural Resources. Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Cultural Resources.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. As described above under impacts specific to Project 1, impacts related to cultural resources would be mitigated to less than significant levels, since the CRHR and NRHP eligible resources in the area would be avoided. Because impacts to cultural resources would be mitigated to less than significant through avoidance, Projects 1 – 6 would not result in an incremental increase in effects on cultural resources when combined with the other 29 projects. Therefore, no significant cumulative impacts would be expected to occur. **(DEIR at 4.5-35)**.

3.6 GEOLOGY AND SOILS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Geology and Soils.

Finding:

Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). For the purposes of this

cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time.

It is assumed that construction of all of the cumulative projects would comply with all applicable laws, ordinances, regulations and standards, and that geotechnical studies would be performed to assess and mitigate any geotechnical hazards associated with them; therefore, the cumulative projects would not expose people or structures to potential substantial adverse effects. It is also assumed that the cumulative projects would comply with all applicable erosion control and stormwater management laws, ordinances, regulations and standards, therefore the construction of the cumulative projects would not contribute to cumulative soil erosion or loss of topsoil.

Proposed Projects 1 – 6 would not expose the public to adverse effects from strong seismic ground shaking because the Projects would be contained within a secure fenced area at each location and not open to the public. The potential for injury to workers is also quite low as they will not be on-site the majority of the time, and the likelihood that a seismic event would occur when workers are present is quite small. The Projects would also not result in significant soil erosion because the design and construction of the Projects' facilities would comply with all applicable building codes and standards established by regulatory agencies, including Los Angeles County Department of Public Works and the CBC. The proposed Projects 1 – 6 would therefore not contribute incrementally to cumulative impacts resulting from other development within the 5-mile radius. **(DEIR at 4.6-27)**.

3.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Greenhouse Gas Emissions and Climate Change.

Finding:

Changes or alterations have been required in, or incorporated into Project 1, which mitigate or avoid significant environmental effects to Greenhouse Gas Emissions and Climate Change. Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

As defined in CEQA Guidelines Section 15355, a "cumulative impact" is an environmental effect that may result from the combination of two or more environmental effects associated with a proposed project, or from the combination of one or more project environmental effects with related environmental effects caused by other closely related projects. However, in the case of global climate change, the proximity of the Projects to other GHG-generating activities is not directly relevant to the determination of a cumulative impact. Although AB 32 sets statewide

targets for future GHG emissions, the scoping plan and other implementing tools of the law are clear that the reductions are not expected to occur uniformly from all sources or sectors. The conclusions related specifically to Project 1, above, highlights the manner by which the proposed Projects intend to meet many of these strategies.

Numerous options exist for project developers to reduce their contribution to city-, county-, and state-wide GHG emissions, while helping to meet the region's future housing, jobs, and infrastructure needs. However, it is not possible at this time to accurately quantify GHG emissions expected from the related Projects or the GHG reductions anticipated from the above-listed strategies. There is no certain basis for concluding that an emissions increase resulting from the Projects and the related Projects could cause a measurable increase in global GHG emissions sufficient to force global climate change due to the complex physical, chemical and atmospheric mechanisms involved in global climate change.

In addition, the emissions models used for Project-level evaluations do not fully reflect improvements in technology and other reductions in GHG emissions that are likely to occur pursuant to state regulations, such as AB 1493, SB 1368, AB 32, and Executive Order S-3-5, as well as future federal and/or state regulations. Therefore, it is not possible or meaningful to calculate emissions from each of the identified related Projects and compare that with a numeric threshold or reduction target. Projects 1-6 would be consistent with the state's goals in helping the state meet the RPS (DEIR Table 4.7-17), resulting in a GHG emission profile that is below established thresholds, and include implementation of Mitigation Measures GHG-1 to GHG-5. Therefore, the Projects do not contribute considerably to cumulatively significant global climate change impacts. **(DEIR at 4.7-31)**.

3.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Hazards and Hazardous Materials.

Finding:

Changes or alterations have been required in, or incorporated into Project 1, which mitigate or avoid significant environmental effects to Hazards and Hazardous Materials. Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Hazards and Hazardous Materials.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with

all laws, ordinances, regulations and standards. It is assumed that for each of the cumulative projects, Hazardous Materials Management Plans and Hazardous Waste Management Plans would be implemented, a SWPPP would be prepared, and all applicable environmental due diligence would be conducted (i.e., a Phase I ESA). If any of the cumulative projects are within an airport land use plan or airport influence area, the projects would obtain the appropriate authorizations and permitting from the respective Airport Land Use Commission. The cumulative projects would have a less than significant impact with mitigation to hazards and hazardous materials.

Based on the land uses in the surrounding areas (primarily agricultural) and the limited amount and type of hazardous materials to be used as part of the proposed Projects 1 – 6, no significant incremental cumulative impacts associated with environmental safety are expected to occur as a result of the construction and operation of the proposed Projects 1 – 6. Regulations implemented by the Department of Toxic Substance Control ("DTSC"), LACSD, LACFD, and Cal/OSHA would require similar measures be applied to other developments in the region. Therefore, Projects 1 – 6 are not expected to result in significant incremental cumulative impacts related to hazards and hazardous materials. **(DEIR at 4.8-19 to 4.8-20)**.

3.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Hydrology and Water Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 1, which mitigate or avoid significant environmental effects to Hydrology and Water Quality. Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Hydrology and Water Quality.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Project sites, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-3). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws ordinances regulations and standards. Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. As shown in DEIR Table 3-7 and DEIR Figure 3-17, the proposed Projects would entail approximately 0.60 percent of all proposed projects within a 5-mile radius.

All cumulative projects that may be approved and implemented would also assess potential impacts related to hydrology and water quality. The proposed Projects 1 – 6 were found to have less than significant impacts related to erosion, flooding, debris deposition, and stormwater quality, with no off-site impacts. Additionally, the proposed Projects would not result in any significant or unavoidable impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5-mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative impacts associated with other projects in the Projects' region. **(DEIR at 4.9-45)**.

3.10 LAND USE AND PLANNING

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Land Use and Planning.

Finding:

Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6. The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations, and standards. **(DEIR at 4.10-43)**.

Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. Similar potential impacts can result from these projects as from the Projects with respect to consistency with the subject general plan land use plans and policies, impacts to compatibility with surrounding land uses, and regulatory compliance with zoning ordinances. All cumulative projects that may be approved and implemented would also assess potential impacts related to land use and planning. The proposed Projects were found to have less than significant impacts related to compliance with County zoning, consistency with the County General Plan Land Use Plan intent and applicable land use conformance criteria, dividing an existing community, and with no significant impacts to the adjacent City of Lancaster. Additionally, the proposed Projects would not result in any significant or unavoidable land use impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5 mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative land use related impacts associated with other projects in the region. **(DEIR at 4.10-44)**.

3.11 NOISE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative Noise impacts.

Finding:

Changes or alterations have been required in, or incorporated into Project 1, which mitigate or avoid significant Noise impacts. Project 1, in conjunction with other development projects, will not result in a cumulatively significant Noise impact.

Facts Supporting the Finding:

Two non-Applicant projects identified have the potential to result in cumulative construction noise impacts, due to the projects being located in relatively close proximity to the proposed Projects, but not close enough to result in vibration impacts. The Western Antelope Dry Ranch project (CUP 11-07) is located approximately 1-mile north of Project 2, and the High Desert LLC (CUP 10-03) project is located approximately 1-mile north of Project 4. These distances are close enough that construction noise could propagate out to distances near the Applicant's Projects, but are not close enough to potentially result in vibration impacts. The time period of construction for these two projects is unknown, but if construction were to overlap with construction of the proposed Projects, there is the potential for increased temporary noise levels at residences; however, none of the noise sensitive receptors that are located in close proximity to Project 4 are also located in close proximity to Antelope Solar 1 or Antelope Solar Farm projects. Therefore, sound levels from construction of the Projects would only be minimally increased (less than 1-2 dBA), or not at all, by simultaneous construction. Therefore, overall cumulative impacts of the proposed Projects 1 – 6 would be less than significant with implementation of Mitigation Measures N-1 to N-9. **(DEIR at 4.11-56)**.

3.12 PUBLIC SERVICES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Public Services.

Finding:

Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Public Services. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. It is assumed that for each of the cumulative projects, worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts would be implemented. **(DEIR at 4.12-16)**.

Projects 1 – 6 would not cause effects to result in significant demands to fire response times. Projects 1 – 6 would be designed with appropriate fire protection considerations, and would also result in less than significant impacts to staffing and response times. Furthermore, Projects 1 – 6 would be required to provide taxes to the County that are designed to address cumulative fire department needs associated with new and existing developments. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes and fees to the County to provide for their potential increase to LACFD fire protection service demands (LACFD 2009). Additionally, all development in the area is subject to review and approval by the Fire Department. This ensures that all projects contain appropriate controls to reduce demand on the fire department. As a result, Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative fire protection impacts. **(DEIR at 4.12-17)**.

Projects 1 – 6 would not cause effects to result in significant demands to sheriff staffing or response times. Projects 1 – 6 would also implement site security control, including 24-hour remotely monitored video cameras for security monitoring to prevent potential theft and vandalism activities. Additionally, a portion of Projects 1 – 6 taxes levied would be allocated to sheriff services. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes that would be allocated to sheriff services. As a result, construction and operation of Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative sheriff protection impacts. Therefore, cumulative impacts associated with sheriff services would be less than significant. **(DEIR at 4.12-17)**.

Because development of Projects 1-6 will not induce population growth, no direct or cumulative impacts to schools, parks, libraries or other public facilities will occur. **(DEIR at 4.12-15; 4.12-16)**.

3.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Transportation and Traffic.

Finding:

Changes or alterations have been required in, or incorporated into Project 1, which mitigate or avoid significant impacts to Transportation and Traffic. Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Transportation and Traffic.

Facts Supporting the Finding:

Cumulative impacts for transportation and traffic are the combined effect of Projects 1 – 6 with the impacts of other past, present, and reasonably foreseeable future projects (other projects). This Cumulative Impacts discussion addresses the cumulative impacts of the Applicant's Projects 1 – 6 and the other projects within a geographic radius of 5-mile radius of the Projects (Project Study Area), which could potentially coincide with the expected construction schedule of the Applicant's Projects. Based on evaluation of the Project Study Area and available data from Los Angeles County, there are 29 other projects that have the potential to contribute additional traffic volume within the vicinity of Projects 1-6.

Evaluation of the cumulative impacts within the Project Study Area was focused on the construction-phase traffic for Projects 1-6 and other projects within a 5-mile radius. As previously stated in the individual conclusions for Project 1 above, the operational phase for each Project is anticipated to only generate a maximum of 4 vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a maximum of 12 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis contained in the DEIR, the operational phase vehicle trips/traffic for the Projects are considered negligible and would not result in a significant cumulative impact on the traffic and/or transportation infrastructure in the Project Study Area. **(DEIR at 4.13-41 to 4.13-43)**.

3.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 1), have the potential to result in cumulative impacts to Utilities and Service Systems.

Finding:

Project 1, in conjunction with other development projects, will not result in a cumulatively significant impact to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis

assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, and regulations. Construction and operation of the cumulative projects would result in less than significant impacts to public facilities, which include electricity, gas, wastewater, and solid waste services. During construction, all cumulative projects would follow required measures to prevent construction interference to utility services, and would comply with recycling requirements to minimize solid waste disposal at solid waste facilities. During operation, the solar and wind generation projects would provide electricity, and would generate minimal amounts of solid waste. During operation, the non-solar/non-wind commercial and residential development projects would generate solid waste as would be expected from these residential and commercial uses; it is assumed that these project proponents have planned for and mitigated for the additional solid waste generation as appropriate.

The proposed Projects 1 – 6 would provide their own electricity for operational needs, no natural gas would be required for their operations, little wastewater (from panel washing) would be generated as part of the operations process, and very little solid waste would be generated. As a result, the total cumulative impacts to utility services would be less than significant, and the incremental contribution of Projects 1 – 6 to cumulative impacts related to utility services would be less than significant. Furthermore, because the Applicant has committed to using out of Basin water during construction and operations, Projects 1 – 6 would not result in a cumulatively considerable contribution to water supply impacts in the Basin, and would have no significant cumulative effect on water supply. **(DEIR at 4.14-28)**.

SECTION 4.0 FINDINGS REGARDING PROJECT ALTERNATIVES

These Findings and Statements of Fact regarding project alternatives and certain mitigation measures identified in the Final EIR are set forth to comply with Section 21002 of the Public Resources Code and Sections 15091(a)(3) and 15126.6 of the CEQA Guidelines. Five alternatives to the proposed Project (consisting of Projects 1-6) described in the Draft EIR were analyzed and considered as follows: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites Alternative; 4) Rooftop Solar Generation Alternative; and 5) Wind Energy Generation Alternative. These alternatives constitute a reasonable range of alternatives necessary to permit a reasoned choice. For the reasons set forth below, Alternatives 1-5 are rejected as infeasible for the specific economic, legal, social, technological, or other considerations set forth below.

4.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

Description:

Under the No Project Alternative, Project sites 1-6 would remain in their present condition with site conditions (i.e., fallow agricultural land) as they currently exist.

Finding:

The No Project Alternative is rejected as infeasible because it fails to meet the Project goals and objectives, and would not contribute to the State's ability to meet its near- and long-term renewable energy generation goals and objectives.

Facts Supporting the Finding:

The proposed Projects 1 – 6 would not be approved or implemented under the No Project Alternative. The potential environmental impacts and benefits of the proposed Projects would not occur as a direct consequence of implementation under the No Project Alternative. The No Project Alternative would involve taking no action to generate 172 MW of clean, renewable electrical power utilizing solar PV technology and to integrate the electrical output of the Projects into the electrical grid. This alternative would not allow one of the primary purposes of the proposed Projects which is to increase the output of renewable energy in support of the RPS, such that the State of California may meet its current and planned goals for increasing renewable generation at reasonable market rates.

The No Project Alternative assumes that the sites will remain as they currently exist (primarily fallow agricultural land) and no environmental impacts would result. In summary, the No Project Alternative is provided for comparative purposes to the proposed Projects 1 – 6. This alternative is incapable of meeting the stated goals and objectives of the Projects to provide 172 MW of renewable electric energy to utility providers, and does not contribute to the state's ability to meet its near-term and long-term renewable energy generation goals and objectives. **(DEIR 5-1 to 5-2)**.

4.2 ALTERNATIVE 2: LOWER INTENSITY PROJECTS

Description:

Under the Lower Intensity Projects Alternative, fewer than six sites would be developed, and the smaller projects would be developed in a size and configuration that would result in generation of fewer than 172 MW of electricity.

Finding:

The Lower Intensity Projects Alternative is rejected as infeasible because it partially fails to accomplish the goals of the proposed Projects, which are to provide 172 MW of clean, renewable electric energy using solar PV technology, and to deliver the electric output on a wholesale basis to utility providers.

Facts Supporting the Finding:

Projects 1-6 are designed to meet the increasing demand for clean, renewable electrical power. Any reduction in the size of the effort results in a similar potential reduction in the reliance on foreign sources of fuel, the diversification of energy portfolios, the contribution to the reduction

of GHG emissions, and the generation of "green" jobs. It would also potentially reduce the contribution to the much needed on-peak power to the electrical grid in California.

The opportunity to develop solar power in Los Angeles County has a limited timeframe because the utility companies, which purchase the power, would purchase power from another entity if the proposed Projects are not completed in a timely manner. If Los Angeles County does not approve the six viable SGFs proposed here, the opportunity to contribute to the competitive solar generation business in the County will be further lost to other projects. The proposed Projects are well-positioned to compete in the industry, are comparatively environmentally superior to most other locations, and have good positions for PPAs and interconnection agreements. Additionally, any reduction of the megawatts produced from these Projects would further limit the County's contribution to the State's renewable energy production goals. These 5 to 52 MW Projects meet the utility industry needs for small projects, and any reduction of the respective Projects' size would jeopardize the success of the Projects. **(DEIR at 5-2)**.

4.3 ALTERNATIVE 3: SELECT OTHER PROJECT SITES ALTERNATIVE

Description:

Under the Select Other Project Sites Alternative, other properties could potentially be used for the six Project sites.

Finding:

The Select Other Project Sites Alternative is rejected, because this alternative would have the same or greater impacts to the environment as Projects 1-6, which can all be mitigated to below a level of significance.

Facts Supporting the Finding:

One key objective for the Project Applicant was to locate the Projects in an area with the following characteristics: (1) adequate solar radiation; (2) close proximity to interconnection locations for each solar site; (3) project sites with landowners who are willing to sell large enough parcels of land for solar generation at market price; (4) lack of threatened and/or endangered biological species on the site; (5) lack of nearby sensitive receptors or land uses to minimize potential conflicts with development (6) relatively flat sites that have previously been disturbed to minimize disturbance to native habitat and to minimize the need for site grading; (7) existing access to accommodate construction workforce needs; and (8) access to nearby workforce to minimize traffic and socioeconomic impacts. The Applicant performed in-depth analyses of over 10,000 acres of land in the Western Antelope Valley, as shown in DEIR Figure 6-1. Of the 10,000 acres screened, only ten percent met the criteria listed above.

The six Project sites selected and proposed by the Applicant are the most viable sites to develop solar electricity generation with minimal environmental impacts. These sites were also chosen for development based on interconnection capacity and requirements placed on the Applicant by the utility providers. Selection of other alternative sites would have the same or greater impacts

to the environment since the present Projects are the result of a long and intense effort by the Applicant to find and acquire the most suitable sites according to the criteria given above. **(DEIR at 1-6; 5-3)**. Furthermore, the environmental impacts for Projects 1-6 can all be mitigated to below a level of significance.

4.4 ALTERNATIVE 4: ROOFTOP SOLAR GENERATION

Description:

Under the Rooftop Solar Generation Alternative, solar photovoltaic panels would be installed on private rooftops.

Finding:

The Rooftop Solar Generation Alternative is rejected as infeasible, because the Project Applicant does not have the ability to install solar panels on private rooftops.

Facts Supporting the Finding:

For rooftop solar to be a viable alternative to the proposed Projects it would need to provide 172 MW of electricity into the local grid. Assuming one residential installation can produce 25 kilowatts of electricity, a total of 6,880 residential installations would be needed to produce 172 MW of electricity. The Applicant does not have the ability to install solar panels on private rooftops; therefore this alternative is not feasible for the Applicant. **(DEIR at 5-3)**.

4.5 ALTERNATIVE 5: WIND ENERGY GENERATION

Description:

Under the Wind Energy Generation Alternative, electricity would be generated through the use of wind turbines.

Finding:

The Wind Energy Generation Alternative is rejected as infeasible, because the type of geographical location that is suitable for a wind farm is not available within the vicinity.

Facts Supporting the Finding:

For wind energy generation to be a reasonable alternative to the proposed Projects and meet the purpose and need of the proposed Projects, it would need to provide 172 MW of electricity into the local grid; and to be sited on previously disturbed land that utilizes existing electrical distribution facilities, ROWs, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities. The area required for construction and operation of a 172 MW wind farm would require a much more specific type of geographical location than the

Projects to provide adequate wind; a feasible project area of the nature required for wind electricity production is not readily available within the area of analysis for the proposed Projects. For this reason, this alternative is infeasible. **(DEIR at 5-3)**.

SECTION 5.0 FINDINDS REGARDING THE MITIGATION MONITORING AND REPORTING PROGRAM ("MMRP")

Pursuant to Section 21081.6 of the Public Resources Code, the Commission, in adopting these Findings, also adopts the MMRP for the Silverado Power West Los Angeles Project. This Program is designed to ensure that, during Project implementation, the County and other responsible parties will comply with the mitigation measures adopted in these Findings.

The Commission hereby finds that the MMRP, which is incorporated herein by reference and attached as Exhibit A to these Findings, meets the requirements of Public Resources Code Section 21081.6 by providing for the implementation and monitoring of Project conditions intended to mitigate potential environmental effects of the Project.

SECTION 6.0 CEQA GUIDELINES SECTION 15091 AND 15092 FINDINGS

Based on the foregoing findings and the information contained in the administrative record, the Commission has made one or more of the following findings with respect to each of the significant effects of the Project:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Based on the foregoing findings and the information contained in the administrative record, and as conditioned by the foregoing:

A. All significant effects on the environment due to the Project have been eliminated or substantially lessened where feasible.

SECTION 7.0 CEQA GUIDELINES SECTION 15084(D)(3) AND 15084(D)(4) FINDINGS

The County has relied on Sections 15084(d)(3) of the State CEQA guidelines, which allow acceptance of working drafts prepared by the Applicant, a consultant retained by the Applicant, or any other person. The County has also relied upon Section 15084(d)(4), which allows the Draft EIR to be prepared directly by, or under contract by the lead agency. The County has reviewed and edited as necessary the submitted drafts to reflect the County's own independent judgment, including reliance on County technical personnel from other departments.

SECTION 8.0 PUBLIC RESOURCES CODE SECTION 21082.1(C) FINDINGS

Pursuant to Public Resources Code Section 21082.1(c), the Commission hereby finds that the lead agency has independently reviewed and analyzed the Final EIR, and that the Final EIR reflects the independent judgment of the lead agency.

SECTION 9.0 NATURE OF FINDINGS

Any finding made by this Commission shall be deemed made, regardless of where it appears in this document. All of the language included in this document constitutes findings by this Commission, whether or not any particular sentence or clause includes a statement to that effect. This Commission intends that these Findings be considered as an integrated whole and, whether or not any part of these Findings fail to cross reference or incorporate by reference any other part of these findings, that any finding required or committed to be made by this Commission with respect to any particular subject matter of the Final EIR, shall be deemed to be made if it appears in any portion of these Findings.

SECTION 10.0 RELIANCE ON RECORD

Each and all of the findings and determinations contained herein are based on the competent and substantial evidence, both oral and written, contained in the entire administrative record relating to the Silverado Power West Los Angeles County Project. The findings and determinations constitute the independent findings and determinations of this Commission in all respects, and are fully and completely supported by substantial evidence in the record as a whole.

SECTION 11.0 RELATIONSHIP OF FINDINGS TO EIR

The County finds and declares that substantial evidence for each and every finding made herein is contained in the EIR or is in the record of proceedings in the matter.

SECTION 12.0 CUSTODIAN OF RECORDS

The custodian of the documents or other material which constitute the record of proceedings upon which the County's decision is based is the Los Angeles County Department of Regional Planning located at 320 West Temple Street, Los Angeles, California 90012.

EXHIBIT A
MITIGATION MONITORING AND REPORTING PROGRAM
(“MMRP”)

CEQA requires a Mitigation Monitoring and Reporting Program (MMRP) for projects where mitigation measures are a condition of project approval and development. The Draft EIR prepared for the Silverado Power West, Los Angeles County Projects identified mitigation measures, where appropriate, to avoid or substantially reduce the environmental impacts associated with the Project. This MMRP is designed to monitor the implementation of those mitigation measures. Accordingly, this MMRP has been prepared in compliance with the requirements of CEQA Section 21081.6 and CEQA Guidelines Section 15097.

This section lists each of the proposed Project Design Features (PDFs) and required Mitigation Measures (MMs) and identifies the corresponding action required for proof of compliance, the mitigation timing, the party responsible for implementation, and the monitoring agency or party responsible for ensuring each measure is adequately implemented.

Mitigation Monitoring and Reporting Program
Silverado Power West, Los Angeles County Projects
Project Nos. R2011-00833, 00798, 00799, 00807, 00801, 00805
March 2014

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.1 AESTHETICS				
A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.	A. Submit Plan to AVAQMD for review and approval	Prior to any ground disturbance activities	Applicant/Construction Manager	LACDRP AVAQMD
	B. Maintain log demonstrating compliance. Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD
A-2 The Project site shall be maintained free of debris, trash, and waste during construction.	Site inspection	During construction	Applicant	LACDRP
A-3 The Project site shall be visually screened or partially screened during construction by fencing.	A. Submit Site Plans for review and approval	Prior to issuance of applicable building permit	Applicant	LACDRP
	B. Site inspection as needed	During construction	Applicant	LACDRP
A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.	A. Submit landscape plan for review and approval. The landscape plan must be approved prior to grading or building permit.	Prior to 1st grading or building permit whichever comes first for each project.	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
	B. Implement approved landscape plan	Prior to first energization approval by LADPW B & S	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on	Submit final lighting plan for review and approval	Prior to issuance of building permit(s)	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
essential infrastructure rather than on separate light poles except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.				
5.2 AGRICULTURE AND FORESTRY				
No mitigation measures are required for Agriculture and Forestry.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.3 AIR QUALITY				
AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVQMD
AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of CVC Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Submit Transportation Demand Management program for review and approval	Prior to issuance of building permits	Applicant/Construction Manager	LACDRP LACDPW support and referral for trip reduction determination

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation, to the greatest extent feasible, approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager/Biologist	LACFD LACDRP
AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP AVAQMD
AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.4 BIOLOGICAL RESOURCES				
B-1 Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess	A. Retain qualified Biologist(s)	Prior to issuance of Grading Permit	Applicant/Construction Monitor	LACDRP CDFW
	B. Field Surveys	Prior to grading permit	Applicant	LACDRP CDFW
	C. Maintain daily monitoring reports	During Construction	Applicant/Construction Monitor	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to DRP and CDFW at their request.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-2 Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below. • Pre-survey information gathering will include reviewing of all available agency nest data and mapping. • A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted. • Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds. • A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to	Pre-construction surveys for special-status species that have been identified as having potential to occur on site	Prior to grading or as specified per species	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012). If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals. Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand excavated and collapsed under the supervision of the avian biologist. Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals. • Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.				
B-3 During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or	Biological Monitoring	During construction	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-4 Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily. <u>Swainson's hawk</u>: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity. The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats: Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows: • A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed Significant Ecological Area (SEA). • A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat; • A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat. <u>Burrowing Owl</u>: Mitigation for any occupied burrowing owl burrows found during pre-construction surveys will include a comprehensive tiered approach: • Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;	A. Acquire mitigation lands for Swainson's Hawk	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	B. Acquire mitigation lands for Burrowing Owl	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	C. Pre-construction survey for Alkali Mariposa Lilies	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	D. If necessary Acquire Alkali Mariposa Mitigation land	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
• Disturbance avoidance of occupied burrows during nesting period February 1 – August 31; • Impact avoidance of occupied burrows; • Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW). • Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback). • Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project. <u>Alkali Mariposa Lily</u>: Alkali mariposa lily will be avoided to the greatest extent possible. If pre-construction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable. For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-5 Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria: <u>Habitat Management Land Selection Criteria</u>: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired. Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred. <u>Habitat Management Lands Acquisition</u>: Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW. The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s)	A. Obtain approval of habitat management lands	Prior to Acquisition	Applicant	LACDRP CDFW
	B. Record a permanent deed restriction or conservation easement on mitigation land(s)	Within 45 days of acquiring land(s)	Applicant	LACDRP CDFW
	C. Establish fund in the amount acceptable to LACDRP and CDFW for restoration, enhancement, and maintenance of the mitigation lands	Within 90-days of mitigation land(s) acquisition	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
acquisition in an amount acceptable to the LACDRP and CDFW.				
Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the applicant shall provide a proposed date of purchase which coincides with construction of the facility.				
B-6 Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.	Enter into an agreement with CDFW pursuant to sections 1601 through 1603	Prior to alteration of Streambed	Applicant	CDFW
B-7 Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads as follows: Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.	Revegetation of interior site, excluding interior roads	After construction	Applicant	LACDRP
5.5 CULTURAL RESOURCES				
CUL-1 In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist, in consultation with the Native American Monirot shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources	A. Archaeological monitoring and Native American monitor when there is a find	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP NAHC
	B. Maintain log demonstrating compliance	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During earthmoving activities	Applicant/Construction Manager/Qualified	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.			Archaeologist	
CUL-2 In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.	A. Archaeological and Native American monitoring	During construction	Applicant/Construction Manager/Qualified Archaeologist/NAHC representative	LACDRP NAHC
	B. Maintain documentation demonstrating compliance	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-3 Project 4 construction of gen-tie lines shall maintain the right of way buffer zones prescribed by SCE for this historic electric transmission line resource, which is an active transmission line. This Mitigation Measure shall apply to Project 4 only.	Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-4 Project construction for Project 4 shall maintain a one acre undisturbed area surrounding the Del Sur Cemetery	A. Submit pre-construction surveys	Prior to construction	Applicant/Qualified Archaeologist	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
site. This Mitigation Measure shall apply to Project 4 only.	B. Construction monitoring by qualified Archaeologist	During construction	Applicant/Qualified Archaeologist	LACDRP
	C. Submit construction monitoring documentation	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
	D. Site inspection as needed	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
CUL-5 A County approved archaeologist will be retained to initiate and supervise cultural resource monitoring during Project related earthwork in areas of the Project that are within 50 feet from certain significant cultural resources, specifically from the defined perimeter of site CA-LAN-1579H (Project 4). If resources are identified, the procedures outlined in CUL-1 will be followed and/or CUL-2 (as necessary). This Mitigation Measure shall apply to Project 4 only.	A. Archaeological monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	B. Maintain log demonstrating compliance	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. A The paleontologist shall develop and execute a Paleontological Resource Mitigation and Monitoring Program and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment according to the Program.	Paleontological Monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Paleontologist	LACDRP LAC Natural History Museum support/referral
5.6 GEOLOGY AND SOILS				
No mitigation measures are required for Geology and Soils.	N/A	N/A	N/A	N/A
5.7 GREENHOUSE GAS EMISSIONS				
GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment	A. Submit operating permit(s) as required	Prior to commencement of construction	Applicant	AVAQMD LACDRP
	B. Maintain log	During construction	Applicant/Construction	AVAQMD

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	demonstrating compliance		Manager	LACDRP
GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-3 The off-road construction equipment drivers shall have proper training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-4 Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.	Site inspection as needed	During construction and grading	Applicant/Construction Manager	AVAQMD LACDRP
GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Maintain log demonstrating compliance	Prior to Building Permit	Applicant/Construction Manager	AVAQMD LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.8 HAZARDS/HAZARDOUS WASTES				
HH-1 Prior to the start of construction activities, a Hazardous Materials Management Plan shall be implemented for each project.	Submit Hazardous Materials Management Plan	Prior to start of construction	Applicant	DTSC
HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.	Submit Hazardous Waste Management Plan for each Project	Prior to start of construction	Applicant	DTSC
HH-3 Prior to the start of construction activities on the parcel containing the historic UST at the location of Project 1, a Phase I ESA will be completed. This mitigation measure only applies to Project 1.	Phase I ESA	Prior to issuance of grading permit(s)	Applicant	LACDRP
HH-4 Prior to the start of construction activities, a closure permit for the UST will be verified or obtained from the Los Angeles County Fire Department, Health Hazardous Materials Division. This mitigation measure only applies to Project 1.	Closure permit or verification for UST – Project 1 site	Prior to issuance of grading permit(s)	Applicant	LACFD
HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated	Testing of soil contamination	Prior to start of construction	Applicant	DTSC LACDRP
5.9 HYDROLOGY/WATER QUALITY				
Construction				
HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be	Maintain log demonstrating compliance of Educational materials and training for Property Owners, Tenants, Occupants, and Employee	During Construction	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
available at each project site and a log kept to show education has occurred prior to the start of construction.				
HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit spill contingency plan	Prior to grading permit	Applicant	LACDRP
HYDRO-3 No hazardous materials are anticipated to be stored on-site. If deemed otherwise, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Maintain log demonstrating compliance	During construction and operations	Applicant/Construction Manager	LACFD
HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance of the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit all applicable information	Prior to grading permit	Applicant	LACFD
Operation				
HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often if containers approach overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area/room is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.	A. Include waste collection and disposal methods in construction contract specifications	During operation	Applicant	LACSD LACDRP
	B. Maintain log demonstrating compliance	During operation	Applicant	LACSD LACDRP
5.10 LAND USE AND PLANNING				
No mitigation measures are required for Land Use and Planning	N/A	N/A	N/A	N/A
5.11 NOISE				
N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise	Maintain log of construction equipment arrivals and exit times demonstrating	During construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.	compliance			
N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
	B. Inclusion of requirement for a Noise Control Plan	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest NSR are predicted to be above the County construction noise limit of 60 dBA during the day.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
	B. Site inspection as needed	During Construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-8** Siting substations to achieve NEMA sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project: • Project 1 – 325 feet with a NEMA sound rating of 74 dBA • Project 2 – 1,511 feet with a NEMA sound rating of 81 dBA • Project 3 – 650 feet with a NEMA sound rating of 74 dBA • Project 4 (two transformers) – 1,000 feet with a NEMA sound rating of 77 dBA • Project 5 – 748 feet with a NEMA sound rating of 82 dBA	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-9** The Applicant shall choose to use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
5.12 PUBLIC SERVICES				
No mitigation measures are required for Public Services	N/A	N/A	N/A	N/A
5.13 TRANSPORTATION/TRAFFIC				
TT-1 Prior to issuance of first grading or building permit, Applicant shall document and submit all required information	Submit Projects' road survey	Prior to issuance of first grading or building	Applicant	LACDPW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.		permit		
TT-2 The County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-00798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.	Provide street closure notifications	Three days prior to any street closures impacting fire and/or paramedics	Applicant/Construction Manager	LACFD
TT-3 Stagger construction work shifts before or after peak traffic hours.	A. Maintain log demonstrating compliance	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
	B. Site inspection as needed	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
TT-4 Schedule truck deliveries during off peak hours.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-5 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-6 Encourage carpooling between construction works.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.14 UTILITIES				
No mitigation measures are required for Utilities.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
List of Acronyms: B & S – building and safety BMP – Best Management Practice CEQA – California Environmental Quality Act CASQA – California Association of Stormwater Quality Agencies CBC – California Building Code CDFW – California Department of Fish and Wildlife CUP – Conditional Use Permit CVC – California Vehicle Code dBA – decibels (acoustics) DPR – Department of Parks and Recreation ESA – Environmental Site Assessment hp – Horsepower LACDPW – Los Angeles County Department of Public Works LACFD – Los Angeles County Fire Department mph – miles per hour NEMA – National Electrical Manufacturers Association OSHA – Occupational Safety and Health Administration PRC – Public Resources Code ROW – Right of Way SCE – Southern California Edison SWPPP – Stormwater Pollution Prevention Plan UFC – Uniform Fire Code UST – Underground Storage Tank WATCH – Work Area Traffic Control Handbook LACDPH – Los Angeles County Department of Public Health LACSD – Los Angeles County Sanitation District				

FINDINGS OF FACT REGARDING THE ENVIRONMENTAL IMPACT REPORT

FOR THE SILVERADO POWER WEST LOS ANGELES COUNTY PROJECT

PROJECT SITE NO. 2 (Western Antelope Blue Sky Ranch)

COUNTY PROJECT NO. R2011-00798-(5)

CONDITIONAL USE PERMIT NO. 201100070

ENVIRONMENTAL ASSESSMENT NO. 201100109

STATE CLEARINGHOUSE NO. 2012061068

PROJECT FINDINGS ORGANIZATION

Section 1	Introduction
Section 2	Findings Regarding Potential Environmental Effects Which Are Not Significant or Which Have Been Mitigated to a Less than Significant Level
Section 3	Findings Regarding Cumulative Environmental Effects Which are Not Significant or Which Have Been Mitigated to a Less Than Significant Level
Section 4	Findings Regarding Project Alternatives
Section 5	Findings Regarding the Mitigation Monitoring and Reporting Program
Section 6	CEQA Guidelines Section 15091 and 15092 Findings
Section 7	CEQA Guidelines Section 15084(D)(3) and 15084(D)(4) Findings
Section 8	Public Resources Code Section 21082.1(C) Findings
Section 9	Nature of Findings
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Section 11	Relationship of Findings to EIR
Section 12	Custodian of Records
Exhibit A	Mitigation Monitoring and Reporting Program ("MMRP")

SECTION 1.0 INTRODUCTION

The County of Los Angeles ("County") Regional Planning Commission ("Commission") hereby certifies and finds that the Silverado Power West Los Angeles County ("Project") Final Environmental Impact Report ("Final EIR"), State Clearinghouse Number 2012061068, has been completed in compliance with the California Environmental Quality Act (Public Resources Code Sections 21000 et seq., "CEQA") and the State CEQA Guidelines (Title 14, Cal. Code Regs. Sections 15000 et seq., "CEQA Guidelines").

The Project Final EIR consists of the following documents: (1) December 2013 Draft Environmental Impact Report ("Draft EIR" or "DEIR"); (2) December 2013 Technical Appendices to the Draft EIR; and (3) March 2014 Final EIR.

The Commission hereby further certifies that it received, reviewed and considered the information contained in the following: (i) the Final EIR; (ii) the application for Conditional Use Permit No. 201100070; and (iii) all hearings, and submissions of testimony from County officials and departments, the Applicant (as defined herein), the public, other public agencies, community groups, and organizations.

Concurrently with the adoption of these findings, the Commission adopts a Mitigation Monitoring and Reporting Program ("MMRP"), attached hereto as Exhibit A. Having received, reviewed and considered the foregoing information, as well as any and all information in the administrative record and the record of proceedings, the Commission hereby makes the following Findings of Fact ("Findings") pursuant to and in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15090:

SECTION 1.1 PROJECT BACKGROUND

1.1.1 Project Location.

The Project site is located in the northern portion of unincorporated Los Angeles County. The EIR analyzed a total of six (6) individual Project sites (collectively, "Projects" or "Projects 1-6"), which will each be subject to separate review and approval by the County.[1]

These Findings specifically pertain to "Project 2", which is approximately 157 acres and located approximately 11 miles west of downtown Lancaster, located at 110th Street West and West Avenue K. The Assessor's Parcel Number ("APN") for Project 2 is 3267-015-001. When complete, Project 2 would produce 40 megawatts ("MW") of electricity from solar photovoltaic modules.

[1] The six individual Projects are not dependent upon each other for success. Each Project can succeed as a stand-alone project if other projects are not approved by Los Angeles County or if technical or financial problems delay or block the completion of a Project. CEQA allows for a group of projects to be analyzed as a single EIR; each Project must also receive approval of its CUP application and other entitlements on the merits of the individual Project and individual site.

1.1.2 Project Description—Features Common to Projects 1 - 6.

There are certain general Project characteristics and features that will apply to each of the individual six Project sites, including Project 2, as follows:

All six of the Projects would be designed and built using the same or similar methods and would have similar Project characteristics. The Projects would utilize photovoltaic ("PV") technology on fixed-tilt or tracker mounting supports. The proposed PV Projects would be constructed in phases and operated for an estimated 35 years. Construction would generally take place during normal daylight hours and would conform to County construction requirements.

Each Project would consist of the following elements:

- PV modules;
- PV module mounting system;
- Balance of system and electrical boxes (e.g., combiner boxes, electrical disconnects);
- Substation (Projects 1 – 5);
- Electrical inverters and transformers;
- Electrical AC collection system, including switchgear;
- Data monitoring equipment;
- Generation tie line; and
- Access roads and chain link perimeter security fencing.

<u>Solar PV Generating Facilities</u>

The Solar Generating Facilities ("SGFs") are designed for optimum performance and ease of maintenance. The Projects would consist of a series of PV module arrays mounted on racking systems, which are typically supported by a pile-driven foundation design. The foundation design would be determined based on the full geotechnical survey. The module mounting system, or racking system, would have a fixed-tilt or tracker PV array configuration and would be oriented south to maximize the amount of incident solar radiation absorbed over the course of the year. Electricity from a series of PV arrays would be funneled and combined at combiner boxes located throughout the SGF. The electrical current would then be further collected and combined prior to feeding the inverters. The SGF would be laid out in a PV block design to allow adequate area for maintenance in the way of clearances or access roads.

Inverters would be consolidated in areas to minimize cable routing and trenching and ensure minimal electrical losses. The alternating current ("AC") from the inverters would be routed through an AC collection system and consolidated within system switchgear. The final output from the SGF would be processed through a transformer to match the interconnection voltage. Electrical safety and protection systems would be provided to meet utility, International Organization for Standardization, and regulatory codes and standards. The energy would be

delivered to the regional electrical distribution network. A security perimeter fence with appropriate signage for public protection would be installed. Points of ingress/egress would be accessed by locked gates for facility services and maintenance.

Photovoltaic Modules

The SGFs would require installation of PV modules. The total number of PV modules required would depend on the technology selected, optimization evaluation, and detailed design. The market conditions, economic considerations, and the environmental factors would be taken into account during the detail design process. The following PV module technologies or equivalent are being considered for incorporation into the Projects:

- PV thin-film technology
- PV crystalline silicon technology
- Fixed-tilt configuration; and
- Tracking design configuration.

The modules configured with a fixed tilt would be oriented toward the south and angled at a degree that would optimize solar resource efficiency. For the tracking configuration, the modules would rotate from east to west over the course of the day. Modules would be non-reflective and highly absorptive.

Standard Installation, Array Assembly, and Racking

The final racking system would be determined by optimization evaluations and economic assessments and incorporated into the detailed design. Likewise, the final foundation design would be determined based on the geotechnical survey for each of the PV Project locations. Once the foundation has been installed, the module mounting system would be installed on it. For a tracking configuration, motors would be installed to drive the tracking mechanism. The PV modules would be delivered to each site during construction to support the installation schedule. The module mounting system would be oriented in rows within a PV design block, presenting a standard and uniform appearance across the facility. The panel configuration would be uniform in height and width.

Collection, Inverters, AC Collection, and Transformers

Modules would be electrically connected into strings. Each string would be funneled by electrical conduit (typically underground) wiring to combiner boxes located throughout the solar field power blocks. The output power cables from the combiner boxes would be again consolidated and feed the direct current ("DC") electricity to inverters, which convert the DC to AC. Underground electrical cables would be installed using ordinary trenching techniques, which include excavation of trenches to accommodate conduits. Wire depth and trench backfill would be in accordance with local, state, and federal codes.

The AC energy would be stepped up to the appropriate interconnection voltage by system transformers to match the voltage at the grid interconnection. As required, switchgear cabinetry

would be provided where necessary for circuit control. All electrical inverters, transformers, and gear would be placed on concrete foundation structures.

Commissioning of equipment would include testing, calibration of equipment, and troubleshooting. All electrical equipment, inverters, collector system, and PV array systems would be tested prior to commencement of commercial operations.

Substations

For Projects 1, 2, 3, 4, and 5, which require substations, the area for the substations would be appropriately graded and excavated to accommodate transformer equipment, the control building foundation, and oil containment area. Foundations for equipment within each approximately 1-acre substation would be constructed with reinforced concrete.

Structural components in the Project substation area would include:

- Transformers, switchgear, and safety systems; and
- Footings and oil containment system for transformers.

Interconnection Descriptions

Each inverter would be fully enclosed and pad mounted and would be approximately 90 inches in height. The AC output of two inverters would be fed via underground cable into the low-voltage side of the inverter step-up transformer, generally within 20 feet of the inverters. Each transformer would be mounted on a concrete pad and enclosed together with switchgear and a junction box. Transformers are typically 87 inches in height. The high-voltage output of the transformer would be combined in series via underground collector cables to the junction box of the nearest transformer, ranging from as little as 60 feet to as much as 700 feet. The collector system cables would be tied throughout the SGF at underground junction boxes to the main underground collector cables, which would be composed of a larger wire gauge, to the location of the generator step-up transformer ("GSU"), as applicable at each Project location. The main collector cables would rise into the low-voltage busbar and protection equipment that would be enclosed together with the GSU. The primary switchgear includes the main circuit breaker and utility metering equipment, and it would be enclosed separately but pad-mounted together with the GSU. Both the GSU and the primary switchgear would stand approximately 87 inches in height.

The output of the switchgear would be the start of the Project generation tie ("gen-tie") line. The connections from the SGFs to the regional transmission lines are made through the construction of gen-tie lines. Los Angeles County requires that all gen-tie lines be underground except when other applicable regulations require otherwise, and Projects 1 − 6 are each designed in this manner. Each gen-tie line would consist of three phases of either underground or overhead conductor and a disconnect switch. The overhead conductor would be mounted on either wooden or tubular steel poles of varying heights ranging from 55 to 85 feet. Pole height would be determined by the span between poles as defined in the final design for each Project.

Data Collection Systems

Each Project would be designed with a comprehensive Supervisory Control and Data Acquisition ("SCADA") system for remote monitoring of facility operation and/or remote control of critical components. Within the site, the fiber optic or other cabling required for the monitoring system, would be installed with the gathering line system throughout the solar field leading to a centrally located (or series of appropriately located) SCADA system cabinets. The external telecommunications connections to the SCADA system cabinets may be through either wireless or hard-wired telecommunications to a centralized data collection center.

The system would also include a permanent meteorological data collection system. The station would have several weather sensors: a pyranometer for measuring solar irradiance, a thermometer to measure air temperature, a barometric pressure sensor, and two wind sensors to measure speed and direction. These sensors would be connected to a data logger, which would compile the data for transmission to the data collection center.

Construction

Construction for each of the six Project facilities consists of three major phases: (1) site preparation, (2) PV system installation testing and startup, and (3) site cleanup/restoration. Best Management Practices ("BMPs") would be required during all construction phases of the Projects. A Storm Water Pollution Prevention Plan ("SWPPP") incorporating BMPs for erosion control would be prepared and approved before the start of construction. The Projects would also comply with applicable post-construction water quality standards adopted by the Regional Water Quality Control Board ("RWQCB").

PV System Installation

PV system installation includes earthwork, grading, and erosion control, as well as construction of the plant substation and erection of the PV modules, supports, and associated electrical equipment. System installation would begin with teams installing the steel/concrete piers support structures. The exact design would be finalized pending evaluation of soil conditions.

The proposed method of installation would be the use of vibration-driven pile foundations. This step would be followed by panel installation and electrical work. A very limited volume of concrete would be required for the substation footings, foundations, pads for the transformers, and other substation equipment. Silverado Power, LLC ("Applicant") does not propose to use excavated and poured footings or foundations for the PV arrays. Concrete would be produced at an off-site location by a local provider and transported to the Project sites by truck.

The enclosures housing the inverters have a pre-cast concrete base. Final concrete specifications would be determined during detailed design engineering consistent with applicable building codes. The primary site preparation method for the PV modules would be mowing, because the majority of the six sites are very flat with little change in topography. However, there may be a few instances where limited earthwork, including ponding area leveling of less than one foot in depth, and erosion control cultivation may be required to accommodate the placement of PV arrays. Other than required grading for roads, pads, and drainage features, and standard

trenching and installation work, no other earthwork would be performed within the array areas. Erosion control techniques used during construction may include the use of silt fencing, straw bales, temporary catch basins, inlet filters, and truck tire muck shakers. Construction of the PV arrays includes the installation of support beams, module rail assemblies, PV modules, inverters, transformers, and buried electrical cables.

Wastes generated during construction may include the following: cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spools. The Applicant does not expect to generate hazardous waste during construction. However, field equipment used during construction would contain various hazardous materials such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles.

Operations & Maintenance

Upon commissioning, the Projects would enter the operational phase. For the duration of the operational phase, the Projects would be operated and monitored remotely by a third party contractor, with an assumed two on-site visits for security, maintenance, and system monitoring per quarter (total of eight trips per year) by two third party employees in one light duty truck, and two on-site visits by four third party employees for biannual panel washing that includes one light duty truck and one water truck. Therefore the trips would be no more than 10 trips annually for security, maintenance, system monitoring and panel washing. There would be no personnel stationed on-site full time during operations. The PV arrays would produce electricity passively with minimal moving parts; therefore, maintenance requirements would be limited. Any required planned maintenance would be scheduled to avoid peak-load periods, and unplanned maintenance would typically be responded to as needed depending on the event.

Security

To ensure the safety of the public and the facilities, the sites would be fenced and signs would be posted. Security measures would be installed as necessary to mitigate and/or deter unauthorized access. Access to the sites would be controlled and gates would be installed at the roads entering the property.

Decommissioning Plan

A Decommissioning Plan for each of the Projects would be prepared and submitted for approval to Los Angeles County prior to obtaining a grading permit. The plan would assure that the land is protected during operations and returned as closely as possible to its original state upon termination of the use of the land as a SGF. It is unknown at this time if solar energy electricity production would continue to be utilized on this land in excess of 35 years, and thus the future long-term use of the site beyond 35 years is unknown. The life of each facility is presently proposed to be 35 years. The Decommissioning Plan would be implemented in the early summer of the year or year following the time of facility closure thus allowing the site reclamation to be completed outside of the rainy season and before winter begins. In the event that a Project ceases

operations prior to completion of the 35-year estimated life of the Project, applicable provisions of the Decommissioning Plan would commence.

Section 1.1.3 Project Description—Features Unique to Project Site 2

Project 2 (Western Antelope Blue Sky Ranch) would have a generating capacity of 40 MW-AC and would be located on and be located on 157 acres of mostly disturbed land in unincorporated northern Los Angeles County. Of the 157 acres, approximately 118 acres would be developed for the purpose of solar power generation. The remaining 39 acres will not be disturbed, and are comprised of established vegetation and vacant land that will not be developed. Project 2 would operate year-round, producing electric power during daytime hours.

The power generated by the SGF would be connected to the existing SCE transmission network with the voltage transformation equipment and system safety equipment constructed on the site. Electricity would be delivered to the existing SCE Antelope Substation located near the intersection of 95th Street West and West Avenue J, via a 1.9-mile long gen-tie line originating at the DC collection system within the Project 2 site.

From the northeast corner of Project 2 site, the gen-tie line route Option 1A would be as follows: 0.02 miles underground across 110th Street West, 0.5 miles either underground or overhead along the east side of 110th Street West, either in the Lancaster public ROW or on private land, and 1.38 miles either underground or overhead along the south side of West Avenue J, either within the Lancaster public ROW or located on private land.

An alternative interconnection route, Option 1B, would be a 1-mile long gen-tie line to the proposed private Antelope-Plainview collector substation at W Avenue J and 105th Street West, which was previously approved by the City of Lancaster (City of Lancaster 2013). The gen-tie line path would be as follows: 0.02 miles underground across 110th Street West, 0.5 miles either underground or overhead along the east side of 110th Street West, either in the Lancaster public ROW or on private land, and 0.48 miles either underground or overhead along the south side of West Avenue J, either within the Lancaster public ROW or on private land.

The Antelope-Plainview collector substation would serve as a point to aggregate the generation output of multiple proposed projects in the area onto one set of conductors. Physically located at the collector substation would be steel structures to land the individual project 66 kV gen-tie lines, and combine them onto one higher capacity set of conductors. The collector substation would include the electrical system protection equipment (circuit breaker, disconnect switches, instrumentation transformers, protective relays) necessary to identify and isolate electrical faults and safely disconnect the generators from the SCE transmission system. The collector substation would also house utility revenue metering equipment, and monitoring and telecommunications equipment housed in a small control building. The monitoring equipment would aggregate key system data (MW produced, Megavolt Ampere Reactive ("MVAR") produced, status of protective devices, voltage level) from the PV system for delivery to the SCE system via the diverse telecommunication circuits.

A separate, previously approved gen-tie line would connect the Antelope-Plainview collector substation (City of Lancaster 2013) to the SCE Antelope Substation. Electricity from multiple

projects would be delivered to the existing SCE Antelope Substation via a 0.9 mile gen-tie line originating at the collector substation. The gen-tie line would be located along the south side of West Avenue J, either within the public ROW or located on private land. The gen-tie line would be overhead or underground from the collector substation to an area near the high voltage transmission lines approximately 700 feet east of 100th St. West. From this location, the gen-tie line would be located underground where it would ultimately interconnect into the SCE Antelope Substation. The overhead portion of the gen-tie line would consist of multiple conductors mounted on either tubular steel or wooden poles, which would be approximately 55 to 85 feet in height. The proposed and permitted Antelope-Plainview collector substation and 0.9 mile gen-tie to the existing Antelope substation have undergone CEQA review by the City of Lancaster, (City of Lancaster 2013) and are not further analyzed in the EIR prepared for Projects 1-6.

The gen-tie line route for Project 2 would traverse land use designation N-1 in the County of Los Angeles. Within the City of Lancaster, the gen-tie line route would traverse land use designations Non-Urban Residential (NU) and Urban Residential (UR). In July 2013, the City of Lancaster approved a General Plan Amendment for the UR designation to NU designation for another applicant's solar project that the gen-tie line would traverse, to connect to the Antelope Substation. An agreement with the City of Lancaster will be obtained by the Applicant for the gen-tie line that would traverse through this jurisdiction. This agreement will grant right-of-way privileges for the proposed gen-tie line.

Project 2 Telecommunications Lines

Fiber optic cable will run along the gen-tie line from the Project 2 site to the SCE Antelope Substation. If the alternative interconnection plan is selected, two fiber optic cables between the proposed Antelope-Plainview collector substation (City of Lancaster 2013) and the Antelope Substation would be constructed to provide protective relay circuits, SCADA circuits, data, and telephone services. A dedicated broadband connection from a local provider will be secured at the Project 2 site.

Project 2 Construction

Project 2 construction is expected to last approximately 8 months, beginning with site preparation through equipment setup and commencement of commercial operation. Site preparation and construction for Project 2 is expected to occur between the first and third quarters of 2014. The on-site workforce would consist of laborers, electricians, supervisory personnel, support personnel, and construction management personnel. Construction would generally occur during daylight hours, Monday through Friday. Construction activities would be conducted consistent with Los Angeles County regulations regarding hours of construction.

The expected construction water use for Project 2 is 94 acre feet, which would be trucked to this site from a private provider of out of Basin or other authorized water. Construction water needs would be limited to soil conditioning and dust suppression. Potable water would be brought to the Project 2 site for drinking and domestic needs.

Project 2 Operations

No personnel would be stationed at the facility and no occupied structures would be built on the site. Full and part-time positions over the life of the Project would be required for periodic operation and maintenance activities, and would be performed by a third-party contractor. Operational water requirements would be 5.8 acre feet per year ("AFY").

Section 1.1.4 Discretionary Actions Required for Project 2

Implementation of Project 2 will require the following discretionary approval action by the County:

- **Conditional Use Permit ("CUP")**: To authorize the construction and operation of a solar photovoltaic electricity generating plant on 157 acres and installation of a water tank in the A-2-5 Zone. The project meets the definition of "electric generating plant" in the Los Angeles County Zoning Code. Pursuant to Section 22.24.150, electric generating plants are a use subject to a conditional use permit in the A-2 Zone.

Section 1.1.5 Statement of Project Objectives

Together, proposed Projects 1 – 6 would meet the existing and future demand for electricity generated from clean, renewable technology by generating 172 MW of electrical energy from the sun. Recent legislation enacted in California recognizes the multiple benefits associated with the development of renewable energy resources. These benefits include a reduced reliance on fossil fuel, diversification of energy portfolios, reductions in greenhouse gas ("GHG") emissions, and the creation of "green" jobs within the state of California. Additionally, the Projects would assist California in meeting the newly established Renewable Energy Portfolio Standards ("RPS"). Senate Bill 14 established RPS targets for California, stating: "All retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." State government agencies have been directed to take all appropriate actions to implement this target in all regulatory proceedings, including siting, permitting, and procurement for renewable energy power plants and transmission lines.

Each of the six proposed PV Project sites, including Project 2, qualify as eligible renewable energy resources as defined by the California Public Resources Code, and would help the State meet the objective of increasing renewable energy generation. In addition, Projects 1-6 would contribute much-needed competitive energy during peak power periods to the electrical grid in California.

As another key objective, Projects 1-6 have each been sited to minimize impacts to the environment and the local community as follows:

- Using disturbed land or land that has been previously degraded from prior use;
- Using existing electrical distribution facilities, rights-of-way, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities; and

- Minimizing impacts to threatened or endangered species or their habitats, wetlands and waters of the United States, cultural resources, and sensitive land uses.

SECTION 1.2 ENVIRONMENTAL IMPACT REPORT PROCESS

In accordance with State CEQA Guidelines Section 15063, the County completed an Initial Study (June 13, 2012) for the proposed Project, and determined that an Environmental Impact Report ("EIR") was required. A Notice of Preparation ("NOP"), including the Initial Study was circulated to the Governor's Office of Planning and Research, responsible, trustee, and interested agencies, and key interest groups beginning June 20, 2012 to solicit comments on the proposed content of the Draft EIR. The NOP was circulated for the required 30-day comment period which ended July 20, 2012. A Scoping Meeting was held on July 14, 2012 at the Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, to facilitate public review and comment on the Project.

The Draft EIR includes the Initial Study, the comment letters received during the public review period in response to the NOP, and a transcript of verbal comments received during the Scoping Meeting (see Draft EIR Appendix A-1 to A-5). All NOP comments relating to the EIR were reviewed and the issues raised in those comments were addressed, to the extent feasible, in the Draft EIR.

Potentially significant environmental impacts addressed in the Draft EIR include Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems. The Draft EIR analyzed both Project-level and cumulative effects of the Project on these topics and identified a variety of mitigation measures to minimize, reduce, avoid, or compensate for the potential adverse effects of the proposed Project.

The Draft EIR also analyzed five potential alternatives to the proposed Project, including: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites; 4) Rooftop Solar Generation; and 5) Wind Energy Generation. Potential environmental impacts of each of these alternatives were discussed at the CEQA-prescribed level of detail and comparisons were made to the proposed Project.

The Initial Study determined that the Project would result in less than significant or no impact to several environmental resource areas:

1) **Mineral Resources**: The Project would not have the potential to result in the loss of availability of a known mineral resource of value to the region, including those identified in a local general plan, specific plan, or other land use plan.

2) **Employment, Population & Housing**: The Project would provide significant short-term employment for construction workers during the two year construction period. The

duration of construction for the Projects would be less than two years; and construction personnel would commute to the Projects from Lancaster, the Los Angeles areas, and Kern County. However, jobs would be temporary and would be for the two year construction period. Construction workers would not establish new households and are not anticipated to permanently relocate to the area. Additionally, adequate construction personnel presently living in Los Angeles and Kern County would fill all of the jobs that will be available. Area population, housing demands and the need for educational facilities and libraries would not be affected significantly because jobs that would be created are short term in nature; therefore, they would not be impacted by the Projects. Employment, Population, and Housing would not be impacted because the Projects do not require a significant number of personnel to operate them once they are built and producing electricity, and they do not have growth inducing impacts to the local community. Requirements for operations and maintenance are not significant and would be conducted by a few specialized contracted third-party personnel who will cover the Projects. There is no operations and maintenance building on any of the Projects 1-6.

3) **Recreation**: The Project would have no impact on recreation opportunities in the area. There are adequate recreation opportunities in the area, and the availability of these would not change as a result of the Project.

Following the Los Angeles County Department of Regional Planning ("LACDRP") internal departmental review and analysis of the proposed Project through the screencheck process, the Draft EIR was submitted to the State Clearinghouse, Governor's Office of Planning and Research, and circulated for public review period beginning January 6, 2014. The 45-day public review period required by State CEQA Guidelines Section 15087 ended on February 19, 2014.
A public hearing was held before the County's Hearing Examiner to take public testimony on the Draft EIR, at Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, held at 1:00 p.m. on February 1, 2014. Approximately 80 people attended the Hearing Examiner meeting, and 26 attendees provided oral comments on the Draft EIR. A transcript of the oral comments made at the Hearing Examiner Meeting is contained in Section 2.0 of the Final EIR.

SECTION 1.3 PROJECT FINDINGS INTRODUCTION

The Findings made by the County, pursuant to Section 21081 of CEQA, and Section 15091 of the State CEQA Guidelines, on the consideration of Project 2 of the Silverado Power West Los Angeles County Project in unincorporated Los Angeles County, California are presented below. All potentially significant impacts of the Project identified in the Final EIR are included herein, and are organized according to the resources affected.

The Findings in this document are for Project 2 of the Silverado Power West Los Angeles County Project, and are supported by information and analysis from the Final EIR and other evidence in the administrative record.

For each significant impact, a Finding has been made as to one or more of the following, in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15091:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

A narrative of supporting facts follows the appropriate Finding. For all of the impacts, one or more of the findings above have been made. The proposed Project will not result in any significant and unavoidable impacts.

SECTION 2.0 FINDINGS REGARDING POTENTIAL ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

All Final EIR mitigation measures, as set forth in the MMRP (attached as Exhibit A to these findings) have been incorporated by reference into the conditions of approval for Project 2. These mitigation measures and conditions of approval will result in a substantial mitigation of the effects of Project 2, such that the effects are not significant or have been mitigated to a level of less than significant. Specifically, the Commission has determined, based on the Final EIR, that Project 2 design features, mitigation measures, and conditions of approval will reduce Project impacts concerning Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems to a level of less than significant.

2.1 AESTHETICS

Potential Effect:

Project 2 would have significant visual impacts to the Project area if it had a substantial adverse effect on a scenic vista; would be visible from, or obstruct views from a regional riding or hiking trail; substantially damage scenic resources including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features; or create a new source of substantial light or glare which will adversely affect day or nighttime views in the area.

Finding:

Changes or alterations have been required in, or incorporated into Project 2 which mitigate or avoid the potentially significant environmental effects related to Aesthetics.

Facts Supporting the Finding:

There are no designated scenic highways in the vicinity of the Project 2 site. The proposed SGFs would not substantially damage or impact scenic resources such as trees (including Joshua trees) or rock outcroppings, and there are no historic buildings located in the proposed site. **(DEIR at 4.1-105)**. The California Poppy Trail, an adopted proposed multiple-use County trail, runs parallel to the Project 2 site along 110th Street West. A County-designated Class III bikeway is also located along 110th Street West. The bikeway is located adjacent to the eastern boundary of Project 2 for approximately 0.5 mile. West Avenue K, which was identified in the City of Lancaster's MEA as a potential scenic route, is located southeast of the Project site. West Avenue K has no official designation as a scenic route at this time. **(DEIR at 4.1-27)**.

The proposed Project 2 site is vacant land in a rural area, and is typical of the surrounding landscape. The visual quality of the Project site is low. The Project site itself does not have unique or rare features, or hold special significance. The topography is rolling to flat, sloping upwards towards the foothills of the San Gabriel Mountains. Vegetation is uniform and consists of grasses and short shrubs. No permanent water features occur on the site, and there are no features or characteristics that set the Project site apart from the surrounding landscape. No designated trails are located on the Project 2 site; therefore the Project and gen-tie line would not cause the vacation of any portion of any trail. Because the solar modules are low-profile, the Project would not obstruct expansive views. **(DEIR at 4.1-101; 4.1-106)**.

It is highly unlikely that the Project 2 SGF would be discernible from Little Buttes or Quartz Hill, which are both located over six miles from the site. Even though viewpoints from Little Buttes and Quartz Hill are at higher elevations than the Project site, from this distance the proposed Project would fade into the flat landscape. The SGF would be visible from certain locations in the Foothills Area, including portions of the California Aqueduct trails, and may be visible from the California Poppy Reserve. **(DEIR at 4.1-27)**.

Construction activities and equipment on the Project 2 site would be noticeable from vistas in the Foothills area and West Avenue K where not screened by topography and/or vegetation. During construction of the SGF, disturbance areas would appear as large patches of fine, buff-colored rock and soil. Construction activities may produce visible dust but impacts would be mitigated to less than significant with implementation of the fugitive dust plan or Mitigation Measure A-1. Any trash, debris, and waste would be removed from the Project 2 site during construction, and the site will be screened or partially screened by fencing as required by Mitigation Measures A-2 and A-3. Adverse visual effects from construction would be temporary and last only during the construction time period, and would be less than significant with implementation of Mitigation Measures A-1, A-2, and A-3. **(DEIR at 4.1-94)**.

A post-construction visual simulation of Project 2 (DEIR Figure 4.1-32) was developed from a viewpoint in the Foothills Area. The overall level of contrast introduced by Project 2 was evaluated as low from this viewpoint. The Project 2 site is screened by terrain from many viewpoints, and no noticeable modifications to landforms are anticipated. Vegetation removal would be screened by the installation of solar modules. The introduction of solar modules would create a low contrast in form, line, color, and texture from existing conditions. The horizontal lines and colors of the solar field mimic those found in the existing environment. Project 2, including the gen-tie line, would not dominate views from the trail given the degree of modification that has already been introduced to the landscape, including roads, electrical infrastructure (existing PV solar fields, transmission lines, substations, and distribution lines, and because Project 2 would be largely screened by rolling terrain that exists between the trail and the Project 2 site. The Project 2 site may be more noticeable from higher elevations in the Foothills area where not screened by terrain, but overall impacts to this viewpoint are less than significant.

A second post-construction photographic simulation was completed from a viewpoint at the intersection of 110th Street West and West Avenue K (DEIR Figure 4.1-33). The photo simulation provided in Figure 4.1-33 was taken adjacent to the Project 2 site on the opposite side of 110th Street West. The overall level of contrast introduced by Project 2 was evaluated as moderate from this viewpoint. The SGF would not obstruct views to or from any scenic resources, because of the low profile of the solar modules. The rows of modules mimic the horizontal lines of the flat landscape, and repeat colors that already exist in the existing environment. Contrast is rated at moderate due to the prominence of the solar panels in the immediate foreground. A 10-foot vegetative buffer is proposed along 110th Street West to mitigate views from West Avenue K (Mitigation Measure A-4), the California Poppy Trail, and the Class III bikeway, which will reduce this impact to less than significant. **(DEIR at 4.1-95)**.

Project 2 construction activities may produce dust that is visible in the distance, but impacts would be mitigated to less than significant with implementation of the fugitive dust plan. Construction activities and equipment would be noticeable to trail users in the foothills area where the Project 2 site and associated gen-tie line are not screened by terrain. Construction activities may produce visible dust, but impacts would be mitigated to less than significant with implementation of the fugitive dust plan. Adverse visual effects from construction would be temporary and last only during the construction time period, and would be less than significant. **(DEIR at 4.1-101)**.

Even where visible, the proposed Project 2 components would not be a dominant element in the landscape unless the viewer was directly adjacent to the facility. From viewing points further than approximately 0.25 mile from the solar field, at approximately the same elevation, the solar facility would fade into the flat landscape and not dominate the view. Project 2 is not out-of-character when considering the context of the surrounding landscape. Rural development and public infrastructure are common in the landscape around the Project 2 site, which is situated approximately 1.5 miles north/northeast of the Antelope Substation and within two miles of existing PV solar facilities. Several distribution lines and high-voltage transmission lines converge at the Antelope Substation. Other modifications to the landscape include farms and residences. Because other structures and PV facilities are common in the vicinity of the Project 2

site and in the larger Project area, and because the Project 2 site itself is not characterized by high visual quality, the visual impact of the Project on the existing visual character of the proposed Project site and its surroundings would be less than significant with mitigation. **(DEIR at 4.1-107)**.

Project 2's visual impacts are further reduced with the adoption of the following feasible mitigation measures:

A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.

A-2 The Project site shall be maintained free of debris, trash, and waste during construction.

A-3 The Project site shall be visually screened or partially screened during construction by fencing.

A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.

A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on essential infrastructure rather than on separate light poles except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.

2.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Project 2 would have a significant impact on Agriculture and Forestry Resources if it would: convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract; conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220 (g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g)); result in the loss of forest land or conversion of forest land to non-forest use; or 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.

Finding:

Project 2 will not have a significant effect on the environment related to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

As currently mapped under 2010 data from the Department of Conservation ("DOC") Farmland Monitoring and Mapping Program ("FMMP"), the Project 2 site contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. **(DEIR at 4.2-5)**. Project 2 also contains no forest land, timberland, or timberland zoned Timberland Production. **(DEIR at 4.2-8)**.

Project 2 is located within the Los Angeles County Zoning Ordinance designation A-2, Heavy Agriculture. According to LACDRP, a solar electricity energy generating facility is allowed in Zone A-2 with the issuance of a CUP (Chapter 22.24.150[A]). Furthermore, Project 2 will not preclude future agricultural uses. Project 2 and its associated gen-tie lines are located within a LACDRP Agricultural Opportunity Area ("AOA"). The Antelope Valley Areawide General Plan Policy states that these areas should be protected from incompatible uses. The Antelope Valley Area Plan states that applications for non-agricultural uses in the AOA areas will be evaluated for their impact upon adjacent agricultural operations.

Project 2 would involve conversion of land that was formerly used for agricultural production to renewable electricity energy production. Construction and operation of Project 2 would not involve other restrictions, obstructions, or resources that could result in conversion of Farmland to non-agricultural use. Project 2 has no recorded history of irrigated agricultural land. The Project would produce power in a passive manner and would result in minimal air pollutant emissions, traffic, and noise, and would not affect adjacent agricultural operations.

Project 2 and its associated gen-tie lines are located in an AOA, but are not currently utilized for agricultural purposes. Additionally, the proposed properties are not designated under a Williamson Act contract. As a result, construction and operation of Project 2 would not conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, impacts to existing agricultural use zoning, designated AOAs, and Williamson Act contracts will be less than significant. **(DEIR at 4.2-7)**.

Project 2 and its associated gen-tie lines will temporarily preclude future agricultural use at the Project 2 site. Following the termination of power generating activities at the Project 2 site, all facilities and equipment would be removed and the land would be restored as near to its pre-development condition as possible in the event a new similar land use is not contemplated at that time by then current owners. A decommissioning and reclamation plan detailing land restoration activities will be provided, as required by Los Angeles County as part of the CUP. Additionally, the Applicant will be required to provide a decommissioning bond, or other suitable financial guarantee acceptable to the County, equal to the amount of money estimated to be required to decommission the Project, including any additional environmental review which might become necessary, and restore the land to as near its pre-development condition as possible. Project 2

will not impact any land use outside the development site's limits. Impacts regarding the conversion of Farmland to non-agricultural use will be less than significant. **(DEIR at 4.2-9)**.

2.3 AIR QUALITY

Potential Effect:

Project 2 would have a significant impact on Air Quality if it would: conflict with or obstruct implementation of the applicable air quality plan; violate any air quality standard or contribute substantially to an existing or projected air quality violation; cumulatively produce a considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors); expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people.

Finding:

Changes or alterations have been required in, or incorporated into Project 2 which mitigate or avoid the potentially significant environmental effects related to Air Quality.

Facts Supporting the Finding:

Pursuant to the Clean Air Act ("CAA"), the Antelope Valley Air Quality Management District ("AVAQMD") is required to reduce project emissions of criteria pollutants for which the Mojave Desert Air Basin ("MDAB") is in non-attainment. Project 2 is located within a non-attainment area, which means that certain Project-related activities could potentially be subject to emission control strategies contained within the AVAQMD Federal 8-Hour Ozone Attainment Plan. Construction would involve activities that can result in emissions of particulate matter ("PM"). However, construction of PV panels and the generation-tie line would not require intense earthmoving activities, only the low-impact method of mowing the surface. Compliance with applicable rules, ordinances, plans, and policies would minimize PM emissions during construction. Project 2 construction emissions would not exceed emission thresholds, and would be less than significant. **(DEIR at 4.3-25)**. Since construction of Projects 1-6 would occur consecutively over the course of two years, construction of the six Projects could overlap, which may cause a peak in the Projects' daily construction emissions. However, maximum daily and annual construction emissions would not exceed the appropriate AVAQMD significant thresholds for all pollutants, even with the potential overlap in construction schedules. **(DEIR at 4.3-37)**.

During operation of Project 2, the Project site would undergo maintenance and security activities no more than 10 times annually (as needed), and would not create a daily increase in population or visitors. The assumption of 10 annual trips includes truck trips associated with panel washing. Project 2 would comply with AVAQMD rules and Los Angeles County ordinances, and is designed to be consistent with applicable county policies and the Attainment Plan. Therefore, Project 2 would not conflict with implementing the applicable air quality plan. **(DEIR at 4.3-25)**.

Project 2 emissions estimates are based on compliance with AVAQMD Rule 403 requirements for fugitive dust suppression, watering exposed surfaces two times daily. The short-term emissions during Project 2 construction would not exceed AVAQMD significance thresholds. As such, Project 2 would not exceed thresholds, result in violating air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-27)**. Likewise, even when all six Projects operate concurrently, the operation of all six Projects would not exceed annual thresholds, violate air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-42)**.

Decommissioning of Project 2 (and each of the six Project sites) would require removal of the PV modules, PV module mounting system, electrical boxes, electrical inverters and transformers, electrical AC collection system, switchgear, data monitoring equipment, chain link perimeter security fencing, concrete ballasts, underground vaults, other concrete pads, and transporting all components off site. Air quality emissions from decommissioning would be generated from the pieces of equipment used and any fugitive dust from site preparation activities. Equipment used for decommissioning and removal of concrete ballasts, underground vaults, concrete pads, etc. generally would be similar to that used for construction, except that no mowing or clearing would be required.

Since decommissioning does not involve mowing or clearing activities, the level of fugitive dust emissions would be less than emissions created during construction. After removal of equipment and facilities, the site would need to be re-vegetated. Decommissioning would occur after at least 25 years of operation; therefore, equipment engine technology is likely to be more advanced, and fuels to be cleaner. Criteria pollutant emissions during decommissioning would be equal to or, more likely, less than those estimated from construction for Project 2, and will also be less than significant with mitigation. **(DEIR at 4.3-42)**. Similar to criteria pollutant emissions, hazardous air pollutant emissions during decommissioning would be less than during construction due to advanced equipment engine technology and cleaner fuel and would therefore be less than significant. Exhaust from off-road equipment and on-road vehicles used during decommissioning and construction truck trips would not be expected to create objectionable odors, and would therefore be less than significant. **(DEIR at 4.3-42).**

The MDAB is currently nonattainment for federal and state ozone standards and nonattainment for state PM_{10} standards, which may cause emissions from Project 2 to contribute to an existing or projected air quality standard exceedance. Implementing any of the six Projects (including Project 2) would increase short-term emissions related to construction, and a negligible increase in long-term emissions related to SGF operation and maintenance. Construction for all six sites is expected to be staggered, and may extend over two years. Nevertheless, due to the nature and size of each site, simultaneous construction would not result in emissions of ozone precursors or PM_{10} that exceed daily thresholds. As shown in DEIR Table 4.3-12, “Mitigated Peak Daily Concurrent Construction Emissions”, and DEIR Table 4.3-13, “Peak Annual Concurrent Construction Emissions”, the impacts would be less than significant prior to mitigation. Implementing control strategies to reduce PM_{10} further minimizes air emissions. As such, construction of Project 2 would not 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). **(DEIR at 4.3-43)**.

During the operation phase, Project 2 will have no major emissions sources. Facility operating equipment that emits regulated air pollutants or requires AVAQMD permits is not planned at Project 2 or any of the six Project sites. As shown in DEIR Table 4.3-20, "Peak Annual Concurrent Operation Emissions", the impacts would be less than significant. As such, operation of Project 2 would not 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). **(DEIR at 4.3-43)**.

Project 2 was analyzed for air impacts to nearby sensitive receptors; however, sensitive receptors would only be exposed during construction activities. PM_{10} and $PM_{2.5}$ concentrations are expected to occur primarily from fugitive dust emissions during mowing, excavation activities and, to a lesser degree, during PV installation and paving. Rule 401 requires that airborne particles remain on the site from which they originate under normal wind conditions. Proper mitigation techniques must be implemented to ensure that fugitive dust is contained. Emissions are not expected to expose even the closest sensitive receptors to substantial pollutant concentrations, and, due to the distance between Project sites, simultaneous construction at two sites would not significantly impact the same sensitive receptors. **(DEIR at 4.3-44)**.

Operational emissions from Project 2 would not impact local air pollutant levels at nearby receptors. As mentioned above, sensitive receptors would only be exposed, if at all, during construction activities. The primary source of Project emissions during operation is the vehicles used by facility maintenance staff traveling to and from the site. Maintenance is expected to occur no more than 10 times per year. Overall, Project 2 would not result in an increase in VMT over the course of one summer or winter day. Thus, Project 2 would not result in new long-term stationary sources, nor would they result in a significant number of net new vehicular trips. Carbon monoxide (CO) impacts from operation of Project 2 to sensitive receptors would be less than significant. **(DEIR at 4.3-44)**.

Short-term concentration levels during the construction phase will not expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than the EPA screening levels. **(DEIR at 4.3-45)**. Due to continuous construction of each of the six Project sites over the course of two years (which may overlap), long-term cancer impacts from construction activities to the nearest sensitive receptors were evaluated, and found that even with the cumulative contribution of health risk impacts from all six proposed Projects, the cumulative cancer risk to the identified sensitive receptors is still below the cancer risk exposure level. **(DEIR at 4.3-46)**. Short-term concentration levels during Project 2 site construction will neither expose sensitive receptors to substantial pollutant concentrations, nor exceed the cancer risk screening levels. **(DEIR at 4.3-47)**.

Project 2's Air Quality impacts are further reduced with the adoption of the following feasible mitigation measures:

AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction, or, in locations where water alone does not suffice to suppress dust adequately apply nontoxic chemical soil

stabilizers, according to manufacturers' specifications. Temporarily stockpiled soil shall be secured with tarps or plastic sheeting or sprayed with non-toxic soil stabilizers.

AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).

AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.

AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.

AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.

AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.

AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.

AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.

AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.

2.4 BIOLOGICAL RESOURCES

Potential Effect:

Project 2 would have a significant impact on biological resources if it would: have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game Wildlife ("CDFW") or U.S. Fish and Wildlife Service ("USFWS"); have a substantial adverse effect on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, and regulations of CDFW or USFWS; have a substantial adverse effect on federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means; 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; 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) otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.); 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, Section 22.56.215), and the Sensitive Environmental Resource Areas ("SERAs"), (L.A. County Code, Title 22, Section 22.44, Part 6); or conflict with the provisions of an adopted state, regional, or local habitat conservation plan.

Finding:

Changes or alterations have been required in, or incorporated into Project 2 which mitigate or avoid the potentially significant environmental effects related to Biological Resources.

Facts Supporting the Finding:

Project 2 does not contain riparian habitat, coastal sage scrub, oak woodlands, wetlands, Joshua trees, or yucca trees on the site, and does not contain non-jurisdictional or state regulated waters. **(DEIR at 4.4-59)**. There are also no wetlands, vernal pools, or riparian habitat identified on the Project 2 site. No federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act

features, were identified on the Project 2 site. The Project 2 site slopes from an elevation of 2,724 feet on the southeast corner to 2,589 feet on the northeast corner creating moderate slopes for runoff. Thus, drainages are evident and were identified within the Project 2 site, but these drainages do not provide wetlands or riparian habitat. The habitat in the drainage is not substantially different than the surrounding land, and impacts would be less than significant. **(DEIR at 4.4-60)**.

Project 2 does not contain oak trees, juniper trees, Joshua trees, or other unique native trees. **(DEIR at 4.4-62)**. Project 2 and the immediate vicinity do not contain or conflict with any Significant Ecological Areas ("SEAs"), Wildflower Reserve Areas, or Sensitive Environmental Resource Areas ("SERAs"). The closest SEAs to Project 2 are Portal Ridge-Liebre Mountain which is 3.12 miles west, Fairmont and Antelope Buttes which are 4.16 miles south, and the Ritter ridge SEA which is 6.9 miles southeast. Therefore, Project 2 would not conflict with any local policies or ordinances protecting biological resources. **(DEIR at 4.4-63)**. There are no adopted state, regional, or local habitat conservation plans in effect within the boundaries of the Project 2 site. **(DEIR at 4.4-64)**.

Project 2 has low potential for ferruginous and Swainson's hawk, loggerhead shrike, merlin, and mountain plover to occur onsite. There is moderate potential for coast horned lizard and American badger to occur, and relatively high potential for burrowing owl to occur on the Project 2 site (burrowing owl was observed adjacent to the Project study area during 2013 targeted surveys). Developing the Project 2 site as a solar generating facility would remove habitat for these species, and would result in a significant impact. Mitigation measures would reduce these impacts to less than significant; however, the 118 acres of land to be developed for Project 2 would be mostly unavailable as wildlife habitat during the life of Project 2. **(DEIR at 4.4-57)**.

Valley needlegrass grasslands were identified on portions of the Project 2 site. Valley needlegrass grasslands are considered a sensitive vegetation type by CDFW, and are protected by the City of Lancaster and Los Angeles County. Mitigation lands being selected would replace the lost Valley Needlegras habitat, and efforts to reseed this plant on site would also be undertaken by including these seeds in the land reclamation seed mix.

Project 2 is located within an area of topographically homogeneous open space, and there are no local constraints to movement of resident or migratory wildlife that development of Project 2 would further aggravate. There are no known wildlife migration pathways that would be impacted by Project 2. **(DEIR 4.4-61)**.

Wildlife nursery areas on the Project 2 site may include nesting sites of native bird species, which are protected by the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) and the California Fish and Game Code Section 3503. Burrowing owls may have suitable burrows on the Project 2 site, and protections for bird nesting and burrowing owls are provided in Mitigation Measures B-1, B-2, B-3 and B-4. The intent of acquiring mitigation lands would be to select available parcels that would replace lost breeding/foraging/winter foraging habitat and enhance the overall quality of habitat for a variety of species including migratory bird species. The potential to acquire parcels that would also

maintain or enhance wildlife migration corridors in the area would also be considered. Planting of shrubs and native vegetation on the Project 2 site would improve the opportunities for shrub-nesting bird species on the Project 2 site when it is complete. **(DEIR 4.4-61)**.

Project 2 impacts to Biological Resources are further reduced with the adoption of the following feasible mitigation measures:

B-1: Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to LACDRP and CDFW at their request.

B-2: Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below.

Pre-survey information gathering will include review of all available agency nest data and mapping.

- A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted.

- Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall

record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds.

- A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012).

  If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals.

  Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand-excavated and collapsed under the supervision of the avian biologist.

  Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals.

- Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.

B-3: During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW during construction activities, as frequently as required by LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction

activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.

B-4: Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily.

Swainson's hawk: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity.

The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats:

Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows:

- A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed SEA.

- A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat;

- A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat.

Burrowing Owl: Mitigation for any occupied burrowing owl burrows found during preconstruction surveys will include a comprehensive tiered approach:

- Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;

- Disturbance avoidance of occupied burrows during nesting period February 1 – August 31;

- Impact avoidance of occupied burrows;

- Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW).

- Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback).

- Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project.

Alkali Mariposa Lily: Alkali mariposa lily will be avoided to the greatest extent possible. If preconstruction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable.

For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.

B-5: Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria:

Habitat Management Land Selection Criteria: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired.

Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred.

Habitat Management Lands Acquisition: Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW.

The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s) acquisition in an amount acceptable to the LACDRP and CDFW.

Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the Applicant shall provide a proposed date of purchase which coincides with construction of the facility.

B-6: Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.

B-7: Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads) as follows:

Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock is not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming.

Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.

2.5 CULTURAL RESOURCES AND PALEONTOLOGICAL RESOURCES

Potential Effect:

Project 2 would have a significant effect on Cultural Resources or Paleontological Resources if it would: cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5; cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of formal cemeteries.

Finding:

Changes or alterations have been required in, or incorporated into Project 2 which mitigate or avoid the potentially significant environmental effects related to Cultural Resources.

Facts Supporting the Finding:

No historical resources were detected within Project 2 during the transect survey conducted for the EIR. Four previously recorded sites were identified during the record search, and were revisited during the transect survey of the proposed Gen-tie Options 1 and 2. Previously recorded site "P19-004250" is within gen-tie Option 1A and 1B, and was recommended as not eligible to the California Register of Historic Resources ("CRHR"). Previously recorded sites "P19-004249", "P19-186876", and "P19-003477" are within gen-tie Options 1B, and were all recommended as not eligible to the CRHR. **(DEIR at 4.5-22)**.

Previously recorded sites P19-004249 and P19-004250 consist of two-track dirt roads, and were recommended not eligible for inclusion on the CRHR because they do not appear to meet the formal definitions of a historical resource or a unique archaeological resources as defined by CEQA. Previously recorded sites P19-004249 P19-004250 are comparatively recent (early to mid-twentieth century), have little potential to yield additional data, and do not meet the requisite criteria, and is therefore recommended as not eligible for listing on the CRHR. Previously recorded site P19-186876 is a transmission line, and was recommended not eligible for inclusion on the CRHR because it does not meet any of the requisite criteria. **(DEIR at 4.5-23)**.

Previously recorded site P19-003477 is an electrical substation, and was recommended not eligible for inclusion on the CRHR because it does not appear to meet the formal definitions of a historical resource or a unique archaeological resources as defined by CEQA. Previously recorded site P19-003477 is comparatively recent (early to mid-twentieth century), has little potential to yield additional data, and does not meet the requisite criteria, and is therefore recommended as not eligible for listing on the CRHR. Therefore, construction of Project 2 will not cause any change in the significance of historical resources. **(DEIR at 4.5-23)**.

There is a moderate possibility that historical and/or archaeological materials would be uncovered during necessary subsurface excavations for the construction of the proposed Project 2, which is a potentially significant impact. Therefore, implementation of Mitigation Measure CUL-1, which describes procedures to be followed in the event that cultural resources are discovered, is required. CUL-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-23)**.

No archeological resources were detected during the transect survey. As discussed above, none of the previously recorded sites are considered archaeological resources. Therefore, Project 2 would not cause a substantial adverse change in the significance of an archaeological resource. There is a possibility that historical and/or archaeological materials would be uncovered during necessary subsurface excavations for the construction of the proposed Project 2. Although the likelihood of encountering archaeological resources on the site is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure CUL-1, which describes procedures to be followed in the event that cultural resources are discovered, is required. CUL-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-27).**

Although no paleontological resources were detected during the transect survey of Project 2,the area has potential to contain significant vertebrate fossil remains at relatively shallow depths (10 feet below surface). Based on the paleontological assessment (Dice and Lord 2011), it is unlikely that any intact significant paleontological resources are or will be located on the Project 2 property. Therefore, Project 2 would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature, or contain rock formations indicating potential paleontological resources. If Project excavations reach 10 feet or more below current grade and reveal that older Quaternary deposits and/or the later Miocene deposits are exposed, there will be a higher potential for encountering significant vertebrate fossil remains. Deep cuts should be inspected by a qualified paleontologist in an attempt to identify the more sensitive older alluvial strata. **(DEIR at 4.5-30; 31)**.

There is a possibility that paleontological materials would be uncovered if excavations for the construction of the proposed Project 2 reach a depth of 10 feet or more below current grade. Although the likelihood of encountering paleontological resources within the Project 2 area is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure PALEO-1, the development of a Paleontological Resources Mitigation and Monitoring Plan ("PRMMP") by a qualified paleontologist is required if construction excavation depth is below 10 feet or more below current grade. PALEO-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-31)**. Operation of Project 2 would not require any excavations to the depth of potential paleontological resources. There, operation of Project 2 would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources. **(DEIR at 4.5-31)**.

There is no indication as a result of this study that human remains are present within the boundaries of Project 2. The records search and the field survey indicate no evidence of human remains on or near the sites. Project-related earth disturbance, however, has the potential to

unearth previously undiscovered remains, resulting in a potentially significant impact. However, implementation of Mitigation Measure CUL-2 that describes procedures to be followed in the event that human remains are discovered would ensure that impacts are reduced to a less than significant level. **(DEIR at 4.5-32)**.

Project 2 impacts related to Cultural Resources are further reduced with the adoption of the following feasible mitigation measures:

CUL-1: In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist and Native American Monitor shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites.

If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.

CUL-2: In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.

PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. The paleontologist shall develop and execute a PRMMP and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are

found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find to allow evaluation of the find and determination of appropriate treatment according to the Program.

2.6 GEOLOGY AND SOILS

Potential Effect:

Project 2 would have a significant effect on Geology and Soils if it would: expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic related ground failure, including liquefaction and lateral spreading; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides; result in substantial soil erosion or the loss of topsoil; 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; be located on expansive soil; have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater; or conflict with the Hillside Management Area Ordinance or hillside design standards in the County General Plan Conservation and Open Space Element.

Finding:

Project 2 will not have a significant effect on the environment related to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

Project 2 and the Project 2 gen-tie line are not located in an active or potentially active fault zone according to the California Geological Survey ("CGS") Seismic Hazard Zone Maps (CGS 2008) and Alquist-Priolo Earthquake Fault Zoning Map (CGS 2010). The closest fault zones are the San Andreas Fault Zone, which is located approximately 2 miles to the south southwest of the Project 2 site, and the Garlock Fault Zone, which is located approximately 23 miles northwest of the Project 2 site. Based on research and available information, Project 2 is susceptible to seismicity, but is not susceptible to fault rupture; therefore, impacts involving the rupture of a known earthquake fault will be less than significant. **(DEIR at 4.6-13)**.

The United States Geological Survey ("USGS") National Seismic Hazard Map (2008) indicates that Project 2 and the Project 2 gen-tie line are located in an area mapped from 60 to 80 percent gravity for peak horizontal acceleration with a 10 percent probability of exceedance in the next 50 years. According to the USGS, and dependent on structural design, 10 percent gravity is the

lower threshold at which damages to structures are likely to occur. Based on geologic and soil conditions at the site, the USGS Ground Motion Parameter Calculator indicates that Project 2 facilities will need to be designed to sustain spectral accelerations of approximately 0.782 to 1.812 percent gravity (USGS 2012). **(DEIR at 4.6-16)**.

Project 2 has the potential to be subjected to ground motion during construction. However, because of the temporary nature of the construction period relative to the frequency of occurrence of significant seismic events, the potential for Project 2 construction to expose people or structures to substantially adverse effects due to seismicity and ground motion will be less than significant. **(DEIR at 4.6-16)**. During operation of the facility, all Project 2 structures and operational facilities will be designed in accordance with the California Building Code ("CBC") and applicable industry standards. The design and construction of Project 2 would comply with all applicable building codes and standards established by regulatory agencies, including the Los Angeles County Department of Public Works and the CBC. Therefore, Project 2 impacts related to seismic shaking and strong ground motion hazards would be less than significant. **(DEIR at 4.6-15)**.

The CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 2 or the Project 2 gen-tie line as being located in zones with the potential for liquefaction or ground failure. Additionally, Project 2 is located on poorly sorted coarse grained materials with groundwater typically greater than 100 feet below ground surface (bgs) (USGS 2008). Based on available geologic information, the potential susceptibility of ground failure is less than significant for Project 2 construction and operation. **(DEIR at 4.6-19)**.

The location of Project 2 and its associated gen-tie lines contains includes sloped sections; however, Project 2 development will be constrained to areas consisting of less than 20 percent gradients, with the majority of development occurring in areas with slopes ranging from flat to 5 percent. As indicated in the Project description, development of the solar facility would not result in significant changes to existing site grades, and would not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 2 as being located in zones susceptible to landslides or slope failure. Therefore, the potential susceptibility for slope failure and landslides during construction and operation is less than significant for Project 2. **(DEIR at 4.6-20)**.

The soil series at the location of Project 2 and the Project 2 gen-tie line include Greenfield sandy loam, Hanford coarse sandy loam, Hesperia fine sandy loam, Ramona coarse sandy loam, and terrace escarpments. These soil series have an erosion factor of 0.15 to 0.28, indicating a low to medium susceptibility to water erosion, and a wind erodibility group of 3, indicating a low to medium susceptibility to wind erosion. Implementation of appropriate erosion and sediment control BMPs will be implemented during construction and operation of Project 2, as outlined in Draft EIR Hydrology Section 4.9 and Air Quality Section 4.3, and will mitigate potential impacts to less than significant levels. **(DEIR at 4.6-21)**.

Based on the information in the Geotechnical Critical Issues Analyses and Custom Soil Resource Reports prepared by Tetra Tech, the location of Project 2 and the Project 2 gen-tie line contains mostly low gradient slopes and rolling hills. Development of solar facilities will not result in

significant changes to existing site grades, and will not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) indicates that Project 2 is not susceptible to landslide or liquefaction hazards.

Although subsidence has occurred throughout the Antelope Valley, the majority of subsidence has been concentrated near the City of Lancaster and was caused by excessive groundwater pumping and decreased water levels. Subsidence did not occur in the vicinity of Project 2 from 1930 to 1992, and there has been no surficial evidence such as fissures and differential settling near the Project 2 location. Based on historic rates of subsidence and a relatively stabilizing water level due to reduced pumping and proposed aquifer management, future subsidence is expected to negligible in the vicinity of Project 2. Based on geologic data and the proposed construction and operation as described in the Project description, Project 2 impacts to on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse will be less than significant. **(DEIR at 4.6-23)**.

The soil series at the location of Project 2 and the Project 2 gen-tie line include Greenfield sandy loam, Hanford coarse sandy loam, Hesperia fine sandy loam, Ramona coarse sandy loam, and terrace escarpments. These soil series are rated for a low shrink/swell potential, and the potential for expansive soils to affect Project 2 is less than significant. **(DEIR at 4.6-25)**.

Project 2 does not propose the use of any sanitary facilities that will require septic tanks or sanitary wastewater disposal during either construction or operation. Therefore, no impact will occur. Project 2 is not in the hillside area, and is not affected by Hillside Management Areas. **(DEIR at 4.6-26)**.

2.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Project 2 would have a significant impact related to Greenhouse Gas Emissions and Climate Change if it would: generate direct or indirect GHG emissions that may have a significant impact on the environment, based on any applicable threshold of significance; or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Finding:

Changes or alterations have been required in, or incorporated into Project 2 which mitigate or avoid the potentially significant environmental effects related to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

Project 2's short-term GHG emissions during the construction phase (maximum daily emissions of 5,423 pounds per day) would not exceed the AVAQMD significance threshold for maximum daily emissions (548,000 pounds per day). As such, Project 2 would not exceed thresholds or

result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-21)**.

Because construction of the six Project sites may overlap, concurrent construction emissions of Projects 1-6 were analyzed by emissions per year and thus compared to the annual GHG threshold of 100,000 metric tons of CO_{2e} per year, for long-term emissions. The unmitigated peak annual construction levels for all six Project sites are expected to result in annual GHG emissions below the most stringent annual threshold proposed by the AVAQMD (100,000 tons per year). As such, the Project will not exceed thresholds or result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-23)**.

During operations, Project 2 facility operation would be limited to general maintenance, panel washing, and security. The primary source of emissions during operations is mainly the vehicles used by facility maintenance staff to and from the site. It is anticipated that operations and maintenance would utilize one water truck for panel washing and one light duty truck twice per year. Although Project 2 is scheduled for bi-annual panel washing, a maximum of ten trips were assumed for each Project (four round trips plus one additional round trip to be conservative). The operation emissions provided for each Project are considered the Project's baseline emissions, since it does not include any solar energy reductions. Because operations-related GHG emissions are considered long term, the AVAQMD daily significance threshold of 100,000 metric tons of CO_{2e} per year was used to analyze impacts during operations. The total annual operational emissions for Project 2 are 5.01 tons of CO_{2e} per year, which is well below the AVAQMD threshold of 100,000 tons per year. **(DEIR at 4.7-25)**. Likewise, concurrent operation of all six Projects is estimated to generate approximately 31 metric tons of CO_{2e} annually, which is well below the AVAQMD threshold. **(DEIR at 4.7-27)**.

Construction-related emissions from Project 2 would be temporary and finite in nature, below the applicable thresholds, and are consistent with the AB 32 Scoping Plan. Accordingly, Project 2's construction-related GHG emissions would not be a cumulatively considerable contribution to climate change. Project 2's operational GHG emissions would be negligible and not comprise a cumulatively considerable contribution to climate change and, therefore, would be less than significant. **(DEIR at 4.7-28).**

Furthermore, with implementation of Project 2, there would be an added environmental benefit of displacing GHG emissions in the region. The solar energy generation would offset emissions from electricity usage, which would otherwise be produced by fossil-fueled power generation facilities using petroleum, natural gas, or coal combustion. Project 2 would result in a temporary increase in GHG emissions which is below the most stringent proposed threshold; employ active solar technologies supportive of the state's goals to reduce GHG emissions; and is consistent with the County of Los Angeles's goals. **(DEIR at 4.7-29)**.

Project 2 would therefore be in accordance with the state's need for the construction of renewable energy power plants to meet the state's GHG reduction objectives including:

- California's RPS that requires California's investor-owned electric utilities to obtain 20 percent of the electricity that they supply by 2010 from renewable sources;

- Executive Order S-14-08, which established the RPS targets for California that "all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020";

- Executive Order S-03-05 on climate change to advance renewable energy and other solutions to reduce California's GHG emissions; and

- The California Global Warming Solutions Act of 2006 (AB 32) that established a comprehensive program of regulatory and market mechanisms to reduce GHG emissions to 1990 levels by the year 2020.

Project 2 includes various project design features and objectives that address global climate change and reduce GHG emissions, as do each of the Projects 1-6. Project design features include aspects of the Project that either must be incorporated as part of the conditions of approval, or that the Applicant has committed to include to reduce GHG impacts associated with the Project. The Projects would be designed to reduce emissions through specific goals set. The expected Project features would directly or indirectly result in lower emissions of GHGs. The Project design features that address global climate change impacts include the following:

- Vegetation to sequester GHGs
    - Preserve natural areas by mowing, which maintains the organic material in the soil
    - Preserve open space by limiting constructing on portions of Project site
    - Plant trees and shrubs along the edges as buffers to adjacent receptors

- Construction limitations to minimize GHG emissions
    - Limit construction equipment idling beyond regulation requirements
    - Limit number of simultaneous construction projects by phasing

As such, Project 2 would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions. **(DEIR at 4.7-30)**. In addition to the Project design features listed above, the Project's impacts related to Greenhouse Gas Emissions and Climate Change are further reduced with the adoption of the following feasible mitigation measures:

GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

GHG-3 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.

GHG-4 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

2.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Project 2 would have a significant effect on Hazards and Hazardous Materials if it would: create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials; 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; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses; be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment; for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; for a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area; impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; expose people or structures to a significant risk of loss, injury, or death involving fires, due to location within a Very High Fire Hazard Severity Zones (Zone 4); expose people or structures to a significant risk of loss, injury or death involving fires, due to location within a high fire hazard area with inadequate access; expose people or structures to a significant risk of loss, injury or death involving fires due to location within an area with inadequate water and pressure to meet fire flow standards; expose people or structures to a significant risk of loss, injury or death involving fires due to location within proximity to land uses that have the potential for dangerous fire hazard; or constitute a potentially dangerous fire hazard.

Finding:

Changes or alterations have been required in, or incorporated into Project 2 which mitigate or avoid the potentially significant environmental effects related to Hazards and Hazardous Materials.

Facts Supporting the Finding:

Project 2 would not require extensive or ongoing use of hazardous materials. Hazardous materials used during the construction of Project 2 would be typical of most construction projects of this type. Hazardous materials used during construction activities may include gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, and other supplies. All hazardous materials would be transported, stored, and properly disposed of in compliance with all applicable laws and regulations. The accidental release of hazardous materials or wastes during construction activities is possible. The accidental release of hazardous materials or wastes would be promptly contained and abated in accordance with all applicable laws and regulatory requirements, and therefore is not expected to result in a significant impact. **(DEIR at 4.8-11)**. During operation of Project 2, limited quantities of hazardous materials would be stored on-site. These materials would include fire suppressant and transformer insulating oil (mineral oil). The mineral oil would be contained within Project 2 electrical transformers and switches. Project 2 would develop and implement a hazardous materials and hazardous waste management program for both construction and operational phases. The program would include the following, as required by applicable regulations. **(DEIR at 4.8-11)**.

- **Hazardous Materials and Hazardous Waste Handling:** The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 2. This program would be implemented prior to the start of construction activities. The program would prescribe proper hazardous material use, storage, and disposal requirements, as well as hazardous waste management procedures. The program would identify specific types of hazardous materials to be used during Project 2 construction and operation, and specific types of wastes that will be generated. All personnel would be provided with Project-specific training. These programs would be developed to ensure that all hazardous materials and hazardous wastes would be handled and disposed of in a safe and environmentally sound manner consistent with all applicable laws and regulations. Employees and contractor personnel handling wastes would receive hazardous materials training and be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and treatment, storage, and disposal facility ("TSDF") training in accordance with Occupational Safety and Health Administration ("OSHA") Hazard Communication Standard and 22 CCR. Prior to the start of construction of Project 2, a Hazardous Materials Business Plan ("HMBP") will be prepared and submitted in accordance with Chapter 6.95 of the California Health and Safety Code and Title 22 CCR, as required by the Certified Unified Program Agency.

- **Construction Stormwater Pollution Prevention Plan:** The construction contractor would prepare a site-specific SWPPP for review and approval by the appropriate regulatory agencies and implement it prior to the start of demolition or construction activities at Project 2. The SWPPP would utilize BMPs to address the storage and handling of hazardous materials and sediment runoff during demolition and construction activities.

- **Transport of Hazardous Materials and Hazardous Wastes:** Hazardous materials transported by truck would include fuel (diesel fuel and gasoline) and oils and lubricants

for equipment. Transportation of hazardous waste may include hazardous building materials and small amounts of construction waste such as waste oils, solvents, or cleaners. The construction contractor would prepare written procedures for the transport of hazardous materials and hazardous waste in accordance with the California Vehicle Code, California Highway Patrol Regulations (CCR Title 13); Department of Transportation Regulations, Title 49, CFR; and U.S. Environmental Protection Agency Regulations, Title 40 CFR, and CCR 22 regulations prior to the start of construction activities at Project 2.

- **Fueling and Maintenance of Construction Equipment:** The construction contractor would prepare written procedures for the fueling and maintenance of construction equipment prior to the start of construction activities at Project 2. Vehicles and equipment would be refueled off-site or on-site by refueling trucks. If on-site refueling or maintenance activities are required, refueling and maintenance procedures would include implementation of BMPs to ensure that chemicals do not come in contact with the ground. Equipment will be inspected daily for potential leakage or failures.

- **Emergency Release Response Procedures:** The construction contractor would prepare an Emergency Release Response Plan ("ERRP") detailing the response to releases of hazardous materials. The ERRP would be prepared prior to the start of construction activities at Project 2. The ERRP would prescribe hazardous materials handling procedures for reducing the potential for a release during construction activities, and would include an emergency response program to ensure the rapid and safe cleanup of any accidental spills. All hazardous material spills of threatened release would be immediately reported. All construction and operations personnel would be aware of federal, state, and local emergency response reporting guidelines. Implementation of the aforementioned hazardous materials and hazardous waste management programs would reduce the potential impacts associated with the handling, transport, and use of hazardous materials during both construction and operation of Project 2 to less than significant levels. **(DEIR at 4.8-12)**.

If lead based paint is found during construction of Project 2, the Applicant would comply with County requirements and provide a copy of the qualifications/license of the lead based paint abatement contractor that will perform the abatement or removal of lead based paint to the Department of Public Works Building and Safety Division and the County of Los Angeles Fire Department Health and Hazardous Materials Division. If required by the County, the Applicant would prepare and submit a Hazardous Building Materials Demolition Assessment and Management Plan to the Department of Public Works and Fire Department for review and approval to ensure compliance with all applicable federal, State, and local laws, and regulations. OSHA regulations are in place to assure that these materials are safely removed prior to or during demolition and renovation activities. In compliance with regulations requiring removals by firms and individuals licensed to do such work pursuant to applicable regulations the Project's potential impacts regarding lead exposure would be less than significant. Implementation of the aforementioned ERRP would reduce the potential impacts associated with upset and accidental release conditions at Project 2 (and gen-tie lines) to less than significant levels. **(DEIR at 4.8-13)**.

Project 2 would convert sunlight directly into electrical energy without the creation of hazardous emissions, and no impact to sensitive land uses would occur as a result of hazardous emissions. The primary emissions created by Project 2 (and gen-tie lines) would be air emissions from vehicle and equipment exhaust generated during construction activities. Potential impacts due to air emissions created during construction and maintenance activities at Project 2 would be less than significant, as discussed in Section 4.3 of the DEIR. **(DEIR at 4.8-13)**.

Based on the Environmental Data Review ("EDR"), the location of Project 2 and the Project 2 gen-tie line is not located at a known site that is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5. No Recognized Environmental Conditions ("RECs") were indicated to be located in the vicinity of Project 2, and no known releases have occurred at or adjacent to the Project 2 site. Based on the information compiled in the EDR, Project 2 would have no impact due to site hazards to the public and environment during construction or operations. **(DEIR at 4.8-14)**.

Project 2 and gen-tie lines are not located within an airport land use plan area or within 2 miles of a public use airport, or within the vicinity of a private airstrip. Therefore, Project 2 would have no impact on public use airports. **(DEIR at 4.8-15; 16)**.

Emergency response and evacuation procedures for Project 2 would be coordinated by the Los Angeles County Sheriff's Department ("LACSD") and the Los Angeles County Fire Department ("LACFD"). During Project 2 construction activities, the LACSD and LACFD require that adequate vehicular access be provided and maintained. The Traffic Control Plan for Project 2 would provide for the required access of emergency vehicles during construction activities. During operation of Project 2, Project operation staff would work with both the LACSD and the LACFD to ensure adequate emergency procedures are in place. The HMBP would include an Emergency Response Plan. Additionally, an Emergency Action Plan and a Fire Prevention Plan would be prepared for Project 2 as required by Cal/OSHA. These plans would ensure that Project 2 would have established plans and procedures for responding to emergency situations, and would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, Project 2 impacts to emergency response plans or emergency evacuation plans would be less than significant during both construction and operations. **(DEIR at 4.8-17)**.

Project 2 is not located within a Very High Fire Hazard Severity Zone. No impact would occur in this regard. **(DEIR at 4.8-17)**. A public water system for fire control does not exist near Project 2. The facility design includes a dedicated 10,000-gallon fire water storage tank to be installed and maintained at Project 2, in compliance with LACFD Regulation 19 and other applicable Fire Department water tank specifications. Because the SGF design includes a dedicated fire water tank meeting Fire Department requirements, the water and pressure would meet fire flow needs. Therefore, impacts would be less than significant. **(DEIR at 4.8-18)**.

Project 2 is surrounded by rural agricultural lands with no industrial uses, manufacturing uses, or other particularly high fire hazard uses in the vicinity. Project 2 would comply with all applicable Fire Code and County and City ordinance requirements, and fire safety standards, as stated in DEIR Section 4.12 Public Safety. A Fire Management Plan, which would be prepared for Project

2, establishes standards and practices that would minimize the risk of fire and, in the event of fire, provide for immediate suppression and notification. Therefore, a less than significant impact would occur. **(DEIR at 4.8-18)**.

Project 2 will convert sunlight into electrical energy through a process which would not constitute a fire hazard. All materials and equipment used in the construction of each facility would be specified based on applicable codes and building regulations. Welding activities may also potentially result in the combustion of brush and vegetation. A Fire Protection and Prevention Plan would reduce these potential impacts to less than significant. A Fire Prevention Plan would be prepared for Project 2 as required by Cal/OSHA, and Project 2 would include a dedicated 10,000- gallon fire water storage tank in compliance with LACFD Regulation 19. Therefore, Project 2 does not constitute a potentially dangerous fire hazard, and would have a less than significant impact on fire hazards in the area. **(DEIR at 4.8-19)**.

Project 2 impacts related to Hazards and Hazardous Materials are further reduced with the adoption of the following feasible mitigation measures:

HH-1 Prior to the start of construction activities, a Hazardous Materials Management and Hazardous Waste Management Plan shall be implemented for each project.

HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.

HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated.

2.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Project 2 would have a potentially significant impact on Hydrology and Water Quality if it would: violate any water quality standards or waste discharge requirements; 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; 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; 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; 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; generate construction or

post-construction runoff that would violate applicable stormwater National Pollutant Discharge Elimination System ("NPDES") permits or otherwise significantly affect surface water or groundwater quality; 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); result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance; 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); otherwise substantially degrade water quality; 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; place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain; 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; or place structures in areas subject to inundation by seiche, tsunami, or mudflow.

Finding:

Changes or alterations have been required in, or incorporated into Project 2 which mitigate or avoid the potentially significant environmental effects related to Hydrology and Water Quality.

Facts Supporting the Finding:

A Notice of Intent form would be submitted to the State Water Resources Control Board ("SWRCB") to apply for coverage under the NPDES General Permit for construction of Project 2. During construction, Project 2 would implement BMPs as specified in the site-specific SWPPP. The SWPPP would be developed by a State of California certified Qualified SWPPP Developer ("QSD") and during construction monitored by a State of California certified Qualified SWPPP Practitioner ("QSP"). The SWPPP would be approved by the County and uploaded to the State via the State SMARTs system prior to Project 2 ground-breaking. The SWPPP would identify construction-phase BMPs to be implemented. With implementation of the BMPs, Project 2 and its associated gen-tie lines would only have the potential to generate less than significant effects on groundwater and/or stormwater runoff, and will not violate any water quality standards or waste discharge requirements during construction. **(DEIR at 4.9-34; 4.9-38)**.

During Project 2 operations, mechanical equipment on the solar farm would either be made of pollutant free materials or fitted with special containment units to house any possible drips or spills of lubricants, oils, or other chemicals. Maintenance activities, including solar array washing, would be performed with clean water and allowed to evaporate or drip to the ground. Maintenance and operations personnel would be required to maintain all necessary spill prevention, control, and countermeasures on hand during site visits. These spill response kits would include, but are not limited to, personal protective equipment, spill pads, absorbents, booms, shovels, garbage bags, plastic sheeting, and disposal drums. Permanent treatment BMPs would include infiltration basins to preserve water quality. With these spill prevention, control, and countermeasures on-site, there would be a less than significant impact on groundwater and stormwater runoff quality, and Project 2 will not violate any water quality standards or waste discharge requirements during operation. **(DEIR at 4.9-34; 4.9-38).**

As stated in Section 4.14.5 of the DEIR, water would be required for dust control measures during the duration of construction efforts. An analysis of the water supply, including the use of well water, is presented in DEIR Section 4.14 Utilities and Service Systems. At the outset of construction, water would be supplied via truck to meet the demands of Project 2. Well water is not considered available at this time, and would be reevaluated upon a change in status. The demands of Project 2 are anticipated to have a less than significant impact on the region's groundwater supplies. Furthermore, construction activities are not anticipated to interfere substantially with groundwater recharge. As stated in Section 4.14.5 of the DEIR, water may be required in the first few years of operation to establish the mature vegetation planted after construction. Similar to the construction period, water would be supplied via truck to Project 2. The volume of water required would be considerably less than the water required for construction activities. Well water would be considered if its availability changes. As with construction, impacts to the region's groundwater supplies are anticipated to be less than significant with operation of Project 2. Also, the effect on groundwater recharge by the development's increase in impervious surface will be mitigated by the proposed infiltration basins. These infiltration basins will allow the increase in runoff volume from the proposed development (up to the 25-year storm event) to infiltrate on-site and recharge the groundwater basin. Therefore, less than significant impacts to groundwater recharge are anticipated. **(DEIR at 4.9-35)**.

During construction of Project 2 and its associated gen-tie lines, soils would be disturbed through activities such as minor grading and vegetation removal, which could lead to issues with soil erosion and siltation on- and off-site. Through the implementation of construction control measures per California Association of Stormwater Quality Agencies ("CASQA") standards (silt fencing, fiber rolls, and sandbag barriers), Project 2 would have less than significant impacts on erosion and debris deposition during construction (CASQA 2003). Project 2 and its associated gen-tie lines would require minor grading on-site which would not drastically change the existing drainage patterns or natural channels. Best Management Practices and the Hydrology Study/Drainage Concept/Standard Urban Stormwater Mitigation Plan ("SUSMP")/Low Impact Development ("LID") Reports would help account for the increase in runoff erosion capabilities resulting from the developments' increase in impervious surfaces. The infiltration basins would help reduce flow velocities and the sediment load of the runoff, which would lower the erosion and siltation capabilities of the runoff. Therefore, Project 2 would result in less than significant impacts to erosion and siltation on- and off-site. **(DEIR at 4.9-36)**.

Project 2 and its associated gen-tie lines would require minor grading on-site, which would not drastically change the existing drainage patterns or natural channels. The increase in runoff flow rates and volumes from the developments' increase in impervious surfaces would be addressed by Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to pre-development flow conditions before leaving the project site. With this measure, less than significant impacts would occur related to flooding on- and off-site. **(DEIR at 4.9-36)**.

Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would address the increase in runoff flow rates and volumes from

the developments' increase in impervious surfaces. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to predevelopment flow conditions before leaving the Project site. The basins would be placed within the first half of the site to allow flows over the roads sections enough time to normalize before leaving Project 2. Project soils would treat the captured runoff at the infiltration basins. Therefore, less than significant impacts to existing or planned stormwater drainage systems are anticipated. Also, significant impacts to polluted runoff are not anticipated. **(DEIR at 4.9-36)**.

Project 2 and its associated gen-tie lines would incorporate Los Angeles County LID standards, while following the requirements of the Los Angeles County Department of Public Works ("LACDPW"). Existing on-site drainage patterns and channels would not be significantly altered by the Projects' minimal grading, and all off-site drainage patterns and channels would not be significantly impacted either. Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would allow the developments' increase in runoff (up to the 25-year storm event) to be both infiltrated and treated on-site. This also minimizes downstream impacts by returning to predevelopment flow conditions. Therefore, Project 2 will not conflict with the Los Angeles County Low Impact Development Ordinance. **(DEIR at 4.9-38)**.

Project 2 and its associated gen-tie lines are not in the vicinity of any SWRCB-designated Areas of Special Biological Significance. Therefore, no impacts are anticipated. During construction, wastewater treatment systems would not be necessary. The Projects would contract services to supply and maintain portable toilets. Therefore, the impacts of Project 2 to the quality of groundwater and surface water would be less than significant during construction. The same portable toilet services would be contracted for operations. Temporary portable toilet services would be delivered during the required maintenance periods on an as needed basis. As a result, there would be less than significant impacts to the water quality of groundwater and surface water during Project 2 operations. **(DEIR at 4.9-39)**.

Project 2 does not involve the construction of housing. Therefore, no housing will be placed within a 100-year flood hazard area, and no impacts are anticipated. **(DEIR at 4.9-39)**.

Project 2 is not located within a 100-year flood hazard area, floodway, or floodplain, or within the immediate vicinity of any levees or dams which would place people or structures at risk of significant loss, injury or death in the event of a failure. In the event of a failure of the aqueduct near Project 2, the distance between the site and the aqueduct would allow the flow to dissipate. Therefore, less than significant impacts are anticipated. Project 2 has slopes that are less than 5 percent. Additionally, Project 2 and its gen-tie line are not within the vicinity of any significantly steep slopes which could generate high mudflow conditions. Accordingly, Project 2 will not place structures in an area subject to inundation by seiche, tsunami or mudflow. **(DEIR at 4.9-40)**.

Project 2 impacts related to Hydrology and Water Quality are further reduced with the adoption of the following feasible mitigation measures:

HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be available at each project site and a log kept to show education has occurred prior to the start of construction.

HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-3 No hazardous materials are anticipated to be stored on-site. If hazardous materials are required to be stored on-site, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code and store the materials according to applicable regulations. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance with the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often to prevent containers from overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.

2.10 LAND USE AND PLANNING

Potential Effect:

Project 2 would have a significant effect related to Land Use and Planning if it would: physically divide an established community; be inconsistent with 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; be inconsistent with the zoning ordinance as applicable to the subject properties; or conflict with Hillside Management criteria, Significant Ecological Areas conformance criteria, or other applicable land use criteria.

Finding:

Project 2 will not have a significant effect on the environment related to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

Project 2 is located within a sparsely populated area, and is not located within any established community. Project 2 is located in an area that has been characterized by agricultural uses for several decades, and has been in transition to residential uses or vacant land. Project 2 would not physically alter the community, would not divide any community, or change any public access routes to them. Impacts would be considered to be less than significant. Likewise, Project 2's proposed gen-tie lines would not result in physical improvements that would result in dividing an established community, and the proposed gen-tie line would be located within a public right-of-way or an easement on private land. Therefore, Project 2 would not divide an established community, and impacts would be less than significant. **(DEIR at 4.10-36)**.

Project 2 is not located within the boundaries of a Community Standards District; therefore, no district development standards apply to Project 2. The Antelope Valley Areawide General Plan designates the Project 2 site as N-1, Non-Urban use. According to the Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations (County of Los Angeles 1986). Project 2 is considered a utility installation, and therefore would be consistent with the N-1 land use designation. As a result, Project 2 would be consistent with the General Plan Land Use designation. Development of Project 2 will be consistent with permissible uses associated with the land use designation and the policies, goals, and objectives outlined in the Los Angeles County General Plan and the Antelope Valley Areawide General Plan, and will not be inconsistent with any applicable County plan. **(DEIR at 4.10-36)**.

The gen-tie lines for Project 2 are linear infrastructure that would not result in any changes to the existing land use patterns in the area of Project 2. The gen-tie lines would be located underground within Los Angeles County to the extent practicable, and aboveground within the City of Lancaster, either in a public road ROW or on private lands adjacent to the public road ROW. Within the City of Lancaster, the gen-tie line routes would traverse land use designations "NU" Residential and "UR" in the City of Lancaster. According to the County's Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations.

Additionally, the City's NU land use designation permits solar generating facilities and utility installations within its designation. In July 2013, the City approved a General Plan Amendment for the UR designation to NU designation for another applicant's solar project that the gen-tie line would traverse to connect to the Antelope Substation. A franchise agreement will be obtained by the Applicant with the City of Lancaster for the gen-tie line that will traverse through this jurisdiction. This agreement will grant a utility franchise and right of way privileges for the proposed gen-tie line. Therefore, no impact to County and City Plans would occur**.** Project 2 would not be located within the Fox Airfield's airport influence area. Therefore, this Plan is not applicable to Project 2, and there would be no impacts. **(DEIR at 4.10-37)**.

The County's CUP entitlement process involves the discretionary review of a project, whereby conditions of approval for Project 2 would be assigned. A CUP Burden of Proof is required to be submitted to determine Project 2's consistency with the General Plan, compatibility with surrounding land uses, conditions to ensure compatibility, land suitability and physical constraints, project design, availability of adequate access, public services and facilities to serve the development, and identify potential environmental impacts and mitigation measures. As shown in DEIR Tables 4.10-1, 4.10-2, and 4.10-3, Project 2 is consistent with County land use designations and compatible with adjacent and surrounding land uses. **(DEIR at 4.10-43)**. The implementation of the environmental mitigation measures and CUP conditions would be expected to minimize Project 2's potential impacts, such that the Project could occur while maintaining zoning compliance within the designated zone. As a result, Project 2 would be consistent with the County's zoning designations. Permitting processes for those portions of the gen-tie lines located in the City of Lancaster would require necessary approvals from the City. Compliance with applicable City zoning regulations and conditions would ensure consistency with City's zoning designations. **(DEIR at 4.10-38)**.

Project 2 and lands adjacent to its associated gen-tie line ROW are located within the County's Heavy Agriculture (A-2) Zone. Project 2 is considered equivalent to an electric generating plant. Under the County zoning code for the A-2 zoning designation (Los Angeles County Code Section 22.24.150), electric generating plants and transmission substations are allowed in the A-2 zones with the issuance of a CUP. Lands adjacent to the gen-tie line for Project 2 would consist of the City's RR 2.5 Zone. The proposed gen-tie lines would be constructed underground within Los Angeles County unless other applicable regulations require above-ground installation and aboveground or underground within the City of Lancaster. The gen-tie lines would be located on private lands adjacent to the public road ROW or within the public road ROW. They are linear facilities that would not result in any changes to the existing land use patterns in the Project 2 area, and would be permitted as part of respective County CUP and City permitting requirements. **(DEIR at 4.10-38)**. As a result, implementation of Project 2 and its associated gen-tie lines would be expected to be consistent with County and City zoning designations, and would result in a less than significant impact relative to the A-2 zoning in Los Angeles County and the RR 2.5 zoning in the City of Lancaster.

As discussed in DEIR Section 4.4 Biological Resources, Project 2 and its associated gen-tie lines are not located within a designated SEA; therefore, SEA conformance criteria do not apply. **(DEIR at 4.10-39)**. Project 2 is located near the foothills, and the site has slightly greater slopes than the other Projects 1-6. Portions of Project 2 are located within the Hillside Management Area; however, this Project would not conflict with the Hillside Management criteria since

construction of the solar facility and gen-tie line would be constrained to areas consisting of less than 20 percent slope. Development of the solar facility will not result in significant changes to existing site grades, and would not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map does not identify Project 2 as being proposed in zones of required investigation for earthquake-induced landslide potential. Additionally, the gen-tie line for Project 2 would not be located within a Hillside Management Area. Therefore, there is no impact from the risk for landslides or slope failure. **(DEIR at 4.10-40)**.

Project 2 is located within an Agricultural Opportunity Area, as discussed in Section 4.2 of the DEIR. Project 2 would generate electrical power through renewable solar PV technology which is an allowable use with a CUP and where necessary, a zone change. Project 2 would involve conversion of land that was formerly used for agricultural production to renewable energy production. Construction and operation of Project 2 would not involve other restrictions, obstructions, or resources that could result in conversion of farmland to nonagricultural use. Additionally, Project 2 would be located on fallow land that is currently not irrigated, with surrounding parcels being mostly undeveloped and fallow agricultural land. Project 2 would produce power in a passive manner and would result in minimal air emissions, traffic, and noise, and would not affect adjacent agricultural operations. Therefore, a less than significant impact would occur. **(DEIR at 4.10-40)**.

Project 2 contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as discussed in DEIR Section 4.2 Agriculture and Forestry. Therefore, Project 2 will have no impact to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. **(DEIR at 4.10-40)**. Project 2 is not located within a Noise Management Area. **(DEIR at 4.10-41)**.

Project 2 and its associated gen-tie lines are located within the 500-year floodplain Zone X (Unshaded). These areas are known to be of a very low flood risk. All of the Project 2 area would be developed, and measures would be taken in the design of the site's solar panels to account for the flood hazards. Therefore, a less than significant impact would occur. **(DEIR at 4.10-41)**.

2.11 NOISE

Potential Effect:

Project 2 would have a significant Noise impact if it would: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the project; result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or, for a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Finding:

Changes or alterations have been required in, or incorporated into Project 2 which mitigate or avoid the potentially significant environmental effects related to Noise.

Facts Supporting the Finding:

Construction at Project 2 would take place between the first and third quarters of 2014. Sound generated from Project 2 would consist of: (1) short duration sounds resulting from construction activities, and (2) sound during normal facility operations. Vibration from Project 2 would only result during construction. Construction activities would take place only during daytime hours. An evaluation of expected noise and vibration levels was performed, and the ability of Project 2 to comply with applicable noise requirements was assessed.

The Draft EIR determined that the construction noise for Project 2 would be similar to that of Project 1; therefore, the Draft EIR's discussion of Project 2's noise impacts focused on the differences between Project 1 and Project 2, namely received sound levels at the nearest noise sensitive receptor. **(DEIR at 4.11-30)**. These Findings refer to certain facts from the Draft EIR's discussion of Project 1 noise impacts that are also applicable to Project 2.

For Project 2, the following criteria were determined to be inapplicable or to result in no impact:

- Exposure of on-site workers to noise levels that exceed occupational safety standards (90 dBA as a time-weighted 8-hour average or peak noise levels above 115 dBA).

- Exposure of residents to airport or private airstrip-related noise levels above a CNEL of 65 dBA.

Occupational noise exposure is governed by federal and state regulations. Cal/OSHA administers industrial safety regulations in California. Cal/OSHA regulations establish a time-weighted noise exposure limit of 90 dBA averaged over 8 hours (CCR, Title 8, Article 105). Noise source controls, administrative procedures, or worker hearing protection must be provided if worker noise exposure would exceed the 90 dBA limit. The construction contractor selected for the Project would be required to follow Cal/OSHA requirements for construction worker noise exposure. **(DEIR at 4.11-25; 4.11-30)**.

Sound from construction equipment would vary dependent on the construction phase and the number and class of equipment at a location at any given time. Actual received sound levels would fluctuate, depending on the construction activity, equipment type, and separation distances between source and receiver. **(DEIR at 4.11-30)**. Construction noise is a temporary noise source that would only occur during daytime hours. Sound levels from construction are expected to be comparable to sound produced by farm machinery, such as equipment used in nearby agricultural fields. Worst case construction noise levels for the nearest residence would last no more than a few weeks, as construction activities progress across Project 2. Therefore, no one residence would be exposed to significant noise levels for any extended period of time. **(DEIR at 4.11-27)**.

Sound from pile driving would attenuate to 83 dBA at the nearest residence to Project 2, and would attenuate to below 60 dBA within 1 linear mile of this construction activity, depending on meteorological and topographical effects. The average noise level from pile driving is predicted to be 66 dBA, similar to the level resulting at the Project centroid located 1,545 feet from the nearest residence. Because sound levels would be higher than 60 dBA at times, and up to 83 dBA at the closest residence, an exceedance of the County's construction noise level limits is anticipated. Therefore, where pile driving is planned to occur within 3,000 feet of an occupied noise sensitive receptor, an acoustic curtain or sound barrier with a sound transmission class of 19 or greater will be used to reduce received sound levels at the noise sensitive receptors to levels at or below the County's construction noise limit of 60 dBA. Pile driving is expected to last more than 10 days, and a variance from the County of Los Angeles noise ordinance will be required.

Traffic noise generated during construction of Project 2 on and offsite would temporarily add to overall sound levels. As a general construction practice, functional mufflers would be maintained on all equipment to maintain noise levels as low as reasonably achievable. The Project 2 Applicant would make reasonable efforts to minimize noise resulting from construction activities, as described in Mitigation Measures N1 - N6. In sum, with mitigation measures implemented, including the use of sound curtains or barriers during pile driving, construction sound levels would be less than significant. **(DEIR at 4.11-27; 4.11-31)**.

Like noise from pile driving, vibration from pile driving would only last for a few weeks at most, and would move throughout the Project rapidly with no single noise sensitive receptor experiencing the peak 0.09 PPV for more than an few hours, which will be perceptible but will not damage structures. Therefore, exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels due to the construction of Project 2 and the gen-tie line will be less than significant. **(DEIR at 4.11-48)**.

Once operational, Project 2 would generate power using PV modules mounted in rows of parallel racks. The Project is anticipated to be unmanned during normal operation. Systems monitoring would be completed remotely and onsite staff would be limited to repair or cleaning of the PV modules. Maintenance staff would visit two times per year to clean the PV modules, seasonally to clear vegetation, and as needed to perform other general maintenance activities. **(DEIR at 4.11-31)**. Sound sources considered in the operational acoustic analysis include the inverters and transformers associated with the PV modules, the substation, and the transmission line. The principal sources of noise are the cooling-ventilation fans, the electrical components of the inverters and the step-up transformers at the on-site substations. Gen-tie lines for Project 2 would be underground to the extent practicable, and therefore sound from the gen-tie line would not be perceptible. Additionally, because corona noise is typically attributed to higher voltage lines of approximately 345 kV and above, noise complaints from the Project's lower voltage transmission lines (66 kV) are not anticipated. Operational sound sources are all predicted to be less than 35 dBA at nearby noise-sensitive receptors, and would be less than significant. **(DEIR at 4.11-32; 4.11-33)**.

Project 2 is located 2.5 miles from Bohunk's Airpark and 6 miles from General William J. Fox Airfield. The airpark has very low use levels and no airfield noise contours have been developed.

However, due to low operation levels and distance from the airpark sound levels are assumed to be below 55 dBA CNEL. Sound contours have been produced for General William J. Fox Airfield; however, Project 2 is beyond the area included in the airport's land use compatibility plan (Los Angeles County Airport Land Use Commission 2004). As a result, no aviation land use restrictions are required. Project 2 would not create residential land uses, and all Project features are outside the airpark properties. Consequently, there are no impacts from airport-related noise. **(DEIR at 4.11-51)**.

Project 2 impacts related to Noise are further reduced with the adoption of the following feasible mitigation measures:

N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.

N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.

N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.

N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.

N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.

N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.

N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest noise sensitive receptor are predicted to be above the County construction noise limit of 60 dBA during the day. With respect to mitigation during operation, potential impacts associated with on-site

substations are considered. Depending on the Project's acoustic design goals, final substation design may need to incorporate appropriate mitigation measures, including:

N-8 Siting substations to achieve National Electrical Manufacturers Association ("NEMA") sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project:

- Project 2 – 1,511 feet with a NEMA sound rating of 81 dBA

N-9 The Applicant shall use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.

2.12 PUBLIC SERVICES

Potential Effect:

Project 2 would have a significant impact on Public Services if it would 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 fire protection; sheriff protection; schools; parks; libraries, or other public facilities.

Finding:

Project 2 will not have a significant effect on the environment related to Public Services. No mitigation is required.

Facts Supporting the Finding:

Project 2 is located within the LACFD Battalion 11 service area. Station 140, which is 4.6 miles southeast of Project 2, is the jurisdictional station (i.e. the first-responder) to respond to incidents at the site. Additional fire stations within Battalion 11 (identified in DEIR Table 4.12-1) would also potentially be dispatched to respond to fire protection needs at the site.

During construction, workers would be temporary and would not be expected to relocate to the Project 2 area, as they would mostly be hired from the available local workforce, and would not be expected to result in significant changes to the local population; therefore, the construction of Project 2 is not anticipated to create significant changes to the local population that would increase the level of demand on fire protection services or that would increase the level of demand on the fire department services such that additional staff would be needed. **(DEIR at 4.12-7)**.

As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 2 would not result in significant traffic impacts. However, Project 2 would involve construction of an underground 1.9-mile gen-tie line along 110th Street West and West Avenue J. Transmission line construction would require work in the public road ROW, including limited encroachment into the traveled roadway. It is anticipated that the construction of the Project 2 gen-tie lines would only require partial street closures, which provide better emergency access than full street closures. Approvals for Project 2 will require worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts to 110th Street West and West Avenue J. Additionally, the LACFD Fire Stations 140, 112, and 78 would be notified at a minimum of three days in advance of any street closures that may affect fire/paramedic responses in the area. In the event that construction of the Project 2 gen-tie line would require road closures, alternate route details (detour plans) and the schedule of closures would be submitted to the LACFD prior to construction. Implementation of traffic mitigation measure TT-3 would minimize potential effects to 110th Street West and West Avenue J such that the impact to LACFD access and response times would be less than significant. **(DEIR at 4.12-7)**.

Based on the Applicant's commitment to conformance of construction activities at the Project 2 site and gen-tie line ROW to federal, state, and Los Angeles County ordinances for fire protection, and implementation of mitigation related to Hazards and Hazardous Materials, construction would not be expected to result in significant special fire problems or hazards. Additionally, construction traffic at the site would not be anticipated to have a significant impact on local intersections and road segments. Therefore, Project 2 impacts to LACFD service ratios, response times, or other performance objectives for fire protection would be less than significant. **(DEIR at 4.12-7)**.

Operations activities at Project 2 would typically be associated with routine maintenance carried out on-site and along the associated gen-tie ROWs at periodic intervals by a small maintenance crew. These activities would not result in effects to LACFD service ratios, response times, or other performance objectives for fire protection during operations of Project 2; therefore, impacts would be less than significant. In addition, the Applicant would be required to pay taxes as per the Proposition E Special Tax and property tax assessments, which are allocated to the LACFD. These taxes are designed to provide for potential increases in LACFD fire protection service demands to accommodate for new and existing developments. **(DEIR at 4.12-11).**

The Project 2 site is located within the LACSD Field Operations Region 1 service area. The Lancaster Station, which is approximately 10.7 miles northeast of Project 2, would likely be the first responder to incidents at the site. Currently the station maintains an officer-to-population service ratio of approximately 1 to 1,000. Project 2 does not involve any residential uses, and would not be considered to result in significant increases to population. During construction, workers would be temporary, and would not be expected to relocate to the area as they would mostly be hired from the available local workforce. The employees are planned to be hired from the available local workforce, and would not be expected to result in significant changes to the local population that would increase the level of demand on law enforcement services. **(DEIR at 4.12-11)**.

Sheriff services potentially required at Project 2 would likely include incidents of vandalism or theft. While these incidents would require sheriff services, they are not considered emergency response incidents, and as such would not affect emergency response times. As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 2 would not result in significant traffic impacts. However, Project 2 Project 2 would involve construction of an underground 1.9-mile gen-tie line on 110th Street West and West Avenue J, which may require work in the public road ROW, and may potentially encroach into the traveled roadway. As a result, it is proposed to require worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts to 110th Street West and West Avenue J. Implementation of this would be expected to minimize potential effects to 110th Street West and West Avenue J such that the impact to LACSD access and response times would be less than significant. As a result, construction of Project 2 would be expected to result in less than significant effects to LACSD services and response times, such that Project 2 would not require additional LACSD staffing. Therefore, impacts from the construction of Project 2 to LACSD service ratios, response times, or other performance objectives for sheriff protection would be less than significant. **(DEIR at 4.12-12)**.

Project 2 and its associated gen-tie lines do not include residential development or the influx of long-term workers from outside the area, and accordingly would not generate population growth. Consequently, no new demands on school facilities, parks, library facilities or other public facilities are expected, and no impact would occur to these facilities. **(DEIR at 4.12-15; 4.12-16)**.

2.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Project 2 would have a significant impact on Transportation and Traffic if it would: 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; conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks; substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); result in inadequate emergency access; or conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Finding:

Changes or alterations have been required in, or incorporated into Project 2 which mitigate or avoid the potentially significant environmental effects related to Transportation and Traffic.

Facts Supporting the Finding:

Traffic generated during the construction phase of Project 2 and its gen-tie line would include construction worker commuter trips, water truck trips, and delivery truck trips. Construction worker commuter trips and delivery truck trips are anticipated to arrive to the Project 2 site outside of peak hours. It is anticipated that 30 percent of water trucks would arrive to the Project site during the AM peak hour. Project 2 would have an average of 75 workers per day and a peak of 140 workers per day over a 20-day period during construction. For equipment and materials, Project 2 would have an average of 6 delivery truck trips per day with an expected peak of 26 delivery truck trips. It is anticipated that construction workers and delivery trucks would arrive to the Project 2 site outside of peak hours. **(DEIR at 4.13-29)**.

Dependent upon climatic conditions during construction, the maximum estimated water use for the Project 2 site is 94 acre-feet, which would be obtained from an off-site provider. Potable water would be brought in to the Project 2 site for drinking and domestic needs. During the site preparation and grading activities, water would mainly be used for soil compaction and control of fugitive dust generation. Smaller quantities of water would also be required on an as-needed basis for preparation of the concrete required for foundations and other minor uses. Subsequent to these construction activities, water usage would primarily be used for on-going dust suppression associated with the remaining construction of Project 2. Project 2 would require a total of 29 daily water truck trips arriving on-site. Assuming that 30 percent of the water trucks would arrive on-site during the AM peak hour (7:00 AM), 9 water trucks were used in this analysis. As shown in DEIR Tables 4.13-15 and 4.13-16, the local roads would experience a maximum increase in traffic volume of 32.14 percent during the AM peak hour. This is mainly due to the existing low volume and low peak traffic conditions for these roads, which are located in rural areas and operate well below the existing capacity of 1,600 vehicles per lane per hour for a 2-lane road. Therefore, it is concluded that these roads have adequate capacity to safely accommodate the increase from water truck traffic and would have a less than significant impact on the existing traffic conditions. **(DEIR at 4.13-28)**.

During construction of gen-tie lines associated with Project 2, it is anticipated that temporary, one-lane road closures would be necessary. A Project Traffic Plan would be prepared to address the temporary one-lane road closures and submitted to the County for approval prior to issuance/approval of the County Grading Permit as indicated in Mitigation Measure TT-2. Parking, temporary office trailers, and construction and PV equipment lay-down areas would be located entirely within the Project 2 site boundary. The construction impacts would be temporary and less than significant with mitigation. **(DEIR at 4.13-31)**.

The operational phase of Project 2 is anticipated to only generate an average of 4 additional vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a maximum of 12 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis for the water truck trips described above, the operational phase vehicle trips are considered negligible. Therefore, no additional post-construction operational analysis was conducted. The operational phase of Project 2 would have a less than significant impact on the traffic and/or transportation infrastructure. **(DEIR at 4.13-31)**. Project 2 would not conflict with any applicable congestion management programs during the construction or operational phases. **(DEIR at 4.13-39)**.

Air traffic would not be impacted by implementation of Project 2. Project 2 would not include any buildings, structures, or other operations that would require a change in the existing air traffic patterns. The PV modules that would be used at the individual Project sites would be non-reflective and would not pose a hazard to air traffic. Gen-tie line components would be below the height limit and would not result in a change in existing air traffic patterns. **(DEIR at 4.13-39)**. The SGF would be connecting to the existing Southern California Edison Antelope Substation (SCEAS) via a gen-tie line approximately 2 miles long. Transmission line-related radio frequency interference ("RFI") is one of the indirect effects of transmission line operation. RFI is produced by the physical interactions of the electric fields generated by the transmission line. The level of RFI that occurs usually depends on the magnitude of the electric fields involved and the distance from the transmission line. It is usually associated with transmission lines of 345 kV or greater. The Project 2 transmission lines would connect to the SCEAS with a 66 kV gen-tie line (less than 345 kV) and would not adversely impact RFI effects. It is concluded that the operational phase of Project 2 would have less than significant impact on the traffic and/or transportation infrastructure. **(DEIR at 4.13-31)**.

No existing roads would be altered by Project 2, and Project 2 does not include design features or uses that would substantially increase any hazards. Parking, temporary office trailers, and construction and PV equipment lay-down areas would be located entirely within the Project 2 site boundary. Only temporary one-lane road closures are expected for the construction of the Gen-tie Lines. A Project Traffic Plan would be prepared to address the temporary one-lane road closures and submitted to the County for approval prior to issuance/approval of the Grading Permit. Therefore, Project 2 would not result in inadequate emergency access. Project 2 is located in rural areas of Los Angeles County and would not significantly decrease the performance or safety of public transit, bicycle, or pedestrian facilities. **(DEIR at 4.13-40)**.

Project 2 impacts related to Transportation and Traffic are further reduced with the adoption of the following feasible mitigation measures:

TT-1 Prior to issuance of a grading permit, Applicant shall document and submit all required information and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.

TT-2 Prior to any construction activities and/or issuance of required encroachment permits from Los Angeles County, the Applicant shall prepare worksite traffic control plans for review and approval from LACDPW and other affected agencies for any closures, partial closures of public streets, or work within or adjacent to the road right-of-way that impacts the movement of traffic. The Plans shall be prepared in accordance with the California Manual on Uniform Traffic Control Devices (2012).

TT-3 Additionally, the County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-000798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.

TT-4 Stagger construction work shifts before or after peak traffic hours.

TT-5 Schedule truck deliveries during off peak hours.

TT-6 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips. All other trips shall be at off peak hours.

TT-7 Prior to start of construction activities, Applicant shall provide worker education encouraging carpooling and vanpooling by workers and shall provide assistance for organizing vanpools and carpools. A log will be developed to show compliance.

2.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Project 2 would have a significant impact on Utilities and Service Systems if it would: exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards; 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; 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; not 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; 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; be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or 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.

Finding:

Project 2 will not have a significant effect on the environment related to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

The construction of Project 2 and its associated gen-tie lines would generate temporary and limited wastewater as a result of on-site construction workers. The wastewater generated would be collected at the on-site mobile sanitation facilities and then transported to a nearby wastewater disposal facility. In the event that additional wastewater is generated from construction activities, water would be stored in an on-site tank system and would be disposed of at an approved wastewater treatment facility. Construction and operational wastewater will be limited in quantity and significantly below wastewater treatment requirements of Los Angeles County and the RWQCB. **(DEIR at 4.14-14)**.

All wastewater would be treated according to the treatment requirements enforced by the NPDES permit authorized by the Lahonton Regional Water Quality Control Board ("LRWQCB"). Additionally, semi-annual washing of the PV modules would generate minimal wastewater during operation. However, since the wash water would only consist of demineralized water and dust washed off of the modules, it would not need to be treated at a wastewater treatment facility. This wash water would be allowed to infiltrate into the ground and evaporate as it drips off the PV modules. The wastewater generated from maintenance workers would be collected at the on-site temporary mobile sanitation facilities and then transported to a nearby wastewater treatment facility. Project 2 would not exceed the requirements of LRWQCB, and therefore impacts would be less than significant. **(DEIR at 4.14-14)**. Likewise, construction and operation of Project 2 would not exceed the capacity of any treatment plant and would have no impact to a wastewater system. Consequently, no new wastewater treatment facilities would need to be created and no existing facilities would need to be expanded. The maximum construction water use of Project 2 is 94 acre feet, and the maximum operational water use of Project 2 is 5.8 acre feet per year. No water system capacity problems would be created and no new water systems or expansion of existing systems would be required. **(DEIR at 4.14-16)**.

Project Site 2 currently drains from west to east; the post-development condition would maintain this flow path. A SWPPP incorporating BMPs for temporary stormwater management would be prepared and approved before the construction of Project 2 and its gen-tie lines. The final design of Project 2 would allow the pre-development runoff amount to continue to sheet flow in the post-development condition to avoid disturbance to downstream drainage structures or wildlife. The design of Project 2 would eliminate the need for new drainage facilities or expansion of existing facilities. Therefore, Project 2 would have a less than significant impact on drainage facilities. **(DEIR at 4.14-18)**.

The construction for Project 2 and the Project 2 gen-tie lines would create a short-term temporary demand for water, primarily in association with dust control. The Applicant would provide a Dust Control Plan to the County prior to the start of construction activities. The plan would detail site-specific dust control measures designed to minimize water use during construction activities, while minimizing fugitive dust emissions. Project 2's maximum construction water use is 94 ac-ft. Although the Project 2 site was not historically used for agriculture, it is estimated that a property of that size (157 acres) would require at least 408 AFY of water for agriculture. Thus, the maximum construction water use of Project 2 is substantially less than the best estimate of water use of 408 AFY for agriculture, which was historically the

primary land use of surrounding land. Based on potential estimated historic groundwater use at the site, there may be adequate groundwater supply within the western portion of the Basin to meet Project 2's construction water needs. In addition, according to the Antelope Valley Integrated Regional Water Management Plan ("IRWMP"), groundwater is considered a reliable water source in the Antelope Valley Groundwater Basin.

However, given that the Adjudication will not likely be resolved during construction of Project 2, water for Project 2 would be supplied via truck from either Homer LLC, or the City of Lancaster, both of which have provided "Will Serve" letters indicating their ability to meet the water demands of Project 2. Homer LLC would provide out-of- Basin water stored in the Antelope Valley Water Bank. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**.

As previously discussed, the potential estimated historical agricultural water usage for the Project 2 site was determined to be at least 408 AFY. Project 2's maximum construction water use is 94 ac-ft, which equates to 77 percent less than the potential estimated historical annual agricultural groundwater usage at the site. Either of the sources noted above would have sufficient reliable water supplies available to serve the Project 2 construction demands from existing water source entitlements and water resources. Therefore the impacts from water usage during construction would be less than significant. **(DEIR at 4.14-21)**.

During operations, the maximum water use for Project 2 would be 5.8 AFY. A maximum of 5.8 AFY of additional water may be needed in the first 2 years of operation to establish the plants for the landscaping buffer. It is unlikely, but possible that additional water (up to 5.8 AFY) may be needed later during the operations phase for supplemental plantings if landscape vegetation expires and has to be replaced. As with the Project 2 water needs during construction, during operations Homer LLC would also provide out-of-Basin water stored in the Antelope Valley Water Bank. This option would provide a reliable source of water for operations. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**. Therefore, the impacts from water usage during operations would be less than significant. **(DEIR at 4.14-21)**.

Project 2 and its associated gen-tie lines do not require natural gas or propane during construction or operation; therefore there would be no system capacity problems for those utilities. Since natural gas and propane are not needed for Project 2, no new energy facilities would need to be created, and no existing facilities would need to be expanded. Project 2 may require electricity for the construction equipment and for lighting construction activities. The electricity would likely come from one of the existing SCE lines located on the west and south sides of the site. Electricity consumption during construction would be temporary, and would vary depending on the phase of construction. Overall, the construction of Project 2 would require

limited electrical consumption that the existing electrical grid has capacity to serve. Therefore, Project 2 would have a less than significant impact on energy utility system capacity during construction. **(DEIR at 4.14-25)**.

Project 2 would also require electricity for ongoing maintenance operations, lighting, security systems, and other various operational needs. During daylight hours, the electricity needs for Project 2 would be supplied by Project 2's electricity generation. During non-daylight hours, the electricity needs for Project 2 would be provided by either backfeed from the electrical grid, through the proposed gen-tie, or through the existing SCE lines located on the west and south sides of the Project 2 site. Therefore, Project 2 would have a less than significant impact on energy utility system capacity. **(DEIR at 4.14-26)**.

Construction of Project 2 would require minimal ground disturbance during the facility installation. Solid waste generated from construction of Project 2 (and gentie lines) may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty non-hazardous containers, and vegetation wastes. In accordance with Title 22 Chapter 22.52, 65 percent of construction and demolition debris would be recycled. Any material that cannot be recycled would be properly disposed of at a regional disposal facility. Any defective or broken solar modules would be returned to the manufacturer for recycling. In accordance with Title 22 Chapter 20.87, the Applicant would prepare a Recycling and Reuse Plan and progress reports to implement and document the Project's recycling practices. Therefore, Project 2 construction impacts on landfill and solid waste disposal capacity would be less than significant. **(DEIR at 4.14-26)**. Once the SGF is installed, there would be minimal waste generated during Project 2 operations; therefore Project 2 will have a less than significant impact on landfill and solid waste disposal capacity during operations. **(DEIR at 4.14-27)**.

Non-hazardous waste generated during construction, operation, and decommissioning of Project 2 (and gen-tie lines) would be transferred by licensed waste hauling contractors and recycled or disposed of in compliance with local and state regulations. Hazardous wastes would be shipped offsite and treated or disposed in accordance with all applicable laws and regulations for hazardous waste management. The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 2. Project 2 would have no impact relative to compliance with existing federal or state regulations pertaining to solid waste, because Project 2 would be required to comply with all relevant regulations during construction, operation and decommissioning. **(DEIR at 4.14-27)**.

SECTION 3.0 FINDINGS REGARDING CUMULATIVE ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

Pursuant to Section 15130 of the CEQA Guidelines, the following findings and statements of fact identify potentially significant cumulative impacts and Project 2's incremental contribution to the impacts discussed in the Final EIR, in the context of the other five Projects and other cumulative projects. For the following environmental resource areas, Project 2's incremental effect is not cumulatively considerable, and no cumulatively significant impact will occur.

3.1 AESTHETICS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Aesthetics.

Finding:

Changes or alterations have been required in, or incorporated into Project 2, which mitigate or avoid significant environmental effects. Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Aesthetics.

Facts Supporting the Finding:

Individually, with mitigation, each of the six proposed SGF Projects can each be expected to have a less than significant impact on aesthetic resources. The Project sites comprise 987.1 acres, or 0.6 percent of the total area within the 5 mile radius. Within the 5-mile radius area, there are 20,909 acres of development listed by individual projects, as shown in DEIR Table 3-7. These development projects, including the Applicant's Projects, comprise 12.6 percent of the area identified in DEIR Figure 3-5 and include solar projects, commercial projects, and residential projects.

From elevated viewpoints, the western Antelope Valley appears as a mosaic of agricultural lands, suburban developments, and open land. From a distance, the proposed SGFs would not appear dissimilar to agricultural fields or existing PV facilities in shape and size. The other solar and real estate developments proposed for the western Antelope Valley would not appear dissimilar to existing land use patterns. From level viewpoints, such as those along local roads, solar or residential/commercial developments would not be prominent unless the observer is directly adjacent to the facility. Because of the flat nature of the Antelope Valley landscape, developments would quickly become less prominent as the viewer travels away from them. In addition, the scenic character on the valley floor is generally low. Existing commercial, residential, and energy developments (including substations, high-voltage transmission lines, distribution lines, and generation facilities) are scattered throughout the valley.

A 12.6 percent level of increase in development within 5 miles of each of the Project sites is not anticipated to be significant from elevated or level viewpoints, because the proposed developments would appear similar to existing developments in the Antelope Valley, and cover only a very small portion of the land within 5 miles of each proposed Project site. Views of open desert lands would still exist, and the flatness of the landscape would limit the prominence of new developments with increasing distance.

The proposed Projects and other proposed projects within the cumulative impacts study area would be individually required to comply with the Los Angeles County General Plan goals and policies, and the Antelope Valley Area Plan policies, as well as applicable ordinances such as the

Los Angeles County Rural Outdoor Lighting District Ordinance, as they are applicable to aesthetic resources, as identified in Section 4.1.3 of the DEIR. Any cumulative aesthetic impacts would be reduced to a level that is less than significant with mitigation by application of these regulations, and mitigation measures A-1 to A-5. **(DEIR at 4.1-114 to 4.1-115)**.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Cumulative impacts to Agriculture and Forestry Resources could occur in the event that Project 2, in conjunction with the six proposed SGF Projects and other cumulative projects results in the area results in a cumulatively significant loss of Important Farmlands or Williamson Act contracted lands.

Finding:

Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable law ordinances regulations and standards.

Projects 1 – 6 are located in a region with significant agricultural uses. However, the Antelope Valley has been historically and is currently limited by water costs and climate conditions. Cumulatively, the Projects would not develop land classified as Prime Farmland or Farmland of Statewide Importance. Project 4 is the only site that currently contains land designated as Prime Farmland and of Statewide Importance. As mentioned above, the DOC is in process of reclassifying Project 4 land currently mapped as Prime Farmland and Farmland of Statewide Importance to Grazing Land on the 2012 edition of the Important Farmland Map for Los Angeles County. The Projects would not be expected to contribute to the overall trend of conversion of agricultural lands to other uses in the Antelope Valley when considered together with other potential cumulative projects in the area. That said, it is contemplated that at the end of the anticipated 35-year life of Projects 1-6, the associated properties could be returned to agricultural use. The Projects' incremental contribution to cumulative agricultural impacts is considered less than significant. **(DEIR at 4.2-9)**.

3.3 AIR QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Air Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 2, which mitigate or avoid significant environmental effects to Air Quality. Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Air Quality.

Facts Supporting the Finding:

Twenty-nine related projects have been identified within the proposed Projects' vicinity; locations are listed in DEIR Figure 4.3-2, "Cumulative Projects in the Region". Of these 29 related projects, there are a number of related projects that have not yet been built or are currently under construction. Since the Applicant has no control over the timing or sequencing of the related projects, and the level of emissions that would be generated by the related projects is uncertain, it is infeasible and speculative to prepare a quantitative analysis to ascertain daily construction emissions that would occur under a worst-case scenario of all 29 related projects being constructed concurrently with the Applicant's six Projects.

For this reason, the AVAQMD was consulted to assess the cumulative impact resulting only from the Applicant's six Projects. The County's EIR consultant (Tetra Tech) met with AVAQMD officials and technical staff at the AVAQMD's office on May 29, 2012, and discussed the proper cumulative Air Quality analysis methodology for the Project pursuant to CEQA. **(DEIR at 4.3-48)**. AVAQMD determined that cumulative impacts from the Applicant's six Projects should be cumulatively quantified based on size, construction equipment per phase, and construction phase duration, and that the related projects should only be qualitatively discussed within the EIR. The cumulative Air Quality analysis was performed based on the direction from AVAQMD, and included the analysis of concurrent construction and operation emissions sources on any one maximum construction day, air dispersion modeling method, and risk assessment method. **(DEIR at 4.3-48)**.

As previously discussed in the analyses above (DEIR Table 4.3-13, "Peak Annual Construction Emissions"; DEIR Table 4.3-20, "Peak Annual Operation Emissions"; and DEIR Table 4.3-22, "Concurrent Health Risk Assessment"), emissions from overlapping construction phases of the Applicant's six projects would not exceed the AVAQMD thresholds on any maximum day or year during construction or operations. **(DEIR 4.3-30; 4.3-49)**.

With respect to the Project's construction-period air quality emissions and cumulative Basin-wide conditions, the AVAQMD has developed strategies to reduce criteria pollutant emissions outlined in the Air Quality Management Plan ("AQMP") pursuant to CAA mandates. As such,

Project 2 would comply with AVAQMD Rule 403 requirements, and implement all feasible mitigation measures. In addition, Project 2 would comply with adopted AQMP emissions control measures. Per AVAQMD rules and mandates and the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects Basin-wide, which would include each of the related projects mentioned below. **(DEIR 4.3-49)**.

By applying AVAQMD's cumulative air quality impact methodology, implementation of Projects 1 – 6 would not result in an addition of pollutants, such that considerable cumulative impacts in conjunction with related projects in the region would occur. Therefore, the emissions of nonattainment pollutants and precursors generated cumulatively by Projects 1 – 6 would be less than significant. Projects are deemed inconsistent with air quality plans when they result in population and/or employment growth that exceeds growth estimates in the applicable air quality plan. The SGF sites would not conflict with or obstruct implementation of the applicable air quality plan, which in this case is the Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area). The Ozone Attainment Plan relies upon future year emission inventories consistent with California Air Resource Board ("CARB") and the adopted General Plan growth projections. As the proposed Projects are not part of an ongoing regulatory program, the AVAQMD recommends Project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed above, peak daily emissions of operation-related pollutants would not exceed AVAQMD significance thresholds.

The combined Projects' emission estimates state that while Projects 1 – 6 would generate air emissions during construction and a minimal amount of GHG emissions during operations, the Projects' incremental contribution, with mitigation, to cumulative air quality impacts do not exceed any air quality significance thresholds and would comply with the applicable AVAQMD AQMP. It should be noted that solar energy provided by the Projects is a much cleaner source of energy than traditional sources used for the generation of electricity, such as the burning of coal, fuel oil, or natural gas. Furthermore, since the percentage of GHG emissions generated by Projects 1 – 6 is so small; Projects 1 – 6 would provide a *de minimis* contribution to significant cumulative impacts caused by other projects in the region (as further discussed in DEIR Section 4.7, Climate Change and Greenhouse Gas). The Projects' emissions of non-attainment pollutants and precursors generated during operations with mitigation would not exceed the AVAQMD Project-level thresholds and are less than significant. As a result, Project-level emissions would not result in a cumulatively considerable contribution, such that results in an increase in air pollutant emissions above those assumed in the regional AQMP. **(DEIR at 4.3-52)**.

3.4 BIOLOGICAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Biological Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 2, which mitigate or avoid significant environmental effects to Biological Resources. Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Biological Resources.

Facts Supporting the Finding:

The total area included in the map in DEIR Figure 3-17 showing a 5.0 mile radius outward from each of the Project 1 – 6 solar sites comprises 165,349 acres. Solar development in the area is 8,086 acres (4.9 percent of the 165,349 acres shown in DEIR Figure 3-17). The Silverado Projects cover 987 acres (only 0.6 percent of the total area). Open space and wildlife mitigation lands would be acquired and preserved in perpetuity for Projects 1 – 6. Since the mitigation lands are intended to comprise higher quality wildlife habitat than those impacted by the Projects, impacts will be mitigated. The permanent nature of the land mitigation and preservation program to be implemented would assure that these new wildlife habitat mitigation lands would always be maintained and enhanced for wildlife values. Therefore, cumulative impacts from the Project would be less than significant. **(DEIR at 4.4-71)**.

3.5 CULTURAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Cultural Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 2, which mitigate or avoid significant environmental effects to Cultural Resources. Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Cultural Resources.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. As described above under impacts specific to Project 2, impacts related to cultural resources would be mitigated to less than significant levels, since the CRHR and NRHP eligible resources in the area would be avoided. Because impacts to cultural resources would be mitigated to less than significant through avoidance, Projects 1 – 6 would not result in an incremental increase in effects on cultural resources when combined with the other

29 projects. Therefore, no significant cumulative impacts would be expected to occur. **(DEIR at 4.5-35)**.

3.6 GEOLOGY AND SOILS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Geology and Soils.

Finding:

Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time.

It is assumed that construction of all of the cumulative projects would comply with all applicable laws, ordinances, regulations and standards, and that geotechnical studies would be performed to assess and mitigate any geotechnical hazards associated with them; therefore, the cumulative projects would not expose people or structures to potential substantial adverse effects. It is also assumed that the cumulative projects would comply with all applicable erosion control and stormwater management laws, ordinances, regulations and standards, therefore the construction of the cumulative projects would not contribute to cumulative soil erosion or loss of topsoil.

Proposed Projects 1 – 6 would not expose the public to adverse effects from strong seismic ground shaking because the Projects would be contained within a secure fenced area at each location and not open to the public. The potential for injury to workers is also quite low as they will not be on-site the majority of the time, and the likelihood that a seismic event would occur when workers are present is quite small. The Projects would also not result in significant soil erosion because the design and construction of the Projects' facilities would comply with all applicable building codes and standards established by regulatory agencies, including Los Angeles County Department of Public Works and the CBC. The proposed Projects 1 – 6 would therefore not contribute incrementally to cumulative impacts resulting from other development within the 5-mile radius. **(DEIR at 4.6-27)**.

3.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Greenhouse Gas Emissions and Climate Change.

Finding:

Changes or alterations have been required in, or incorporated into Project 2, which mitigate or avoid significant environmental effects to Greenhouse Gas Emissions and Climate Change. Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

As defined in CEQA Guidelines Section 15355, a "cumulative impact" is an environmental effect that may result from the combination of two or more environmental effects associated with a proposed project, or from the combination of one or more project environmental effects with related environmental effects caused by other closely related projects. However, in the case of global climate change, the proximity of the Projects to other GHG-generating activities is not directly relevant to the determination of a cumulative impact. Although AB 32 sets statewide targets for future GHG emissions, the scoping plan and other implementing tools of the law are clear that the reductions are not expected to occur uniformly from all sources or sectors. The conclusions related specifically to Project 2, above, highlights the manner by which the proposed Projects intend to meet many of these strategies.

Numerous options exist for project developers to reduce their contribution to city-, county-, and state-wide GHG emissions, while helping to meet the region’s future housing, jobs, and infrastructure needs. However, it is not possible at this time to accurately quantify GHG emissions expected from the related Projects or the GHG reductions anticipated from the above-listed strategies. There is no certain basis for concluding that an emissions increase resulting from the Projects and the related Projects could cause a measurable increase in global GHG emissions sufficient to force global climate change due to the complex physical, chemical and atmospheric mechanisms involved in global climate change.

In addition, the emissions models used for Project-level evaluations do not fully reflect improvements in technology and other reductions in GHG emissions that are likely to occur pursuant to state regulations, such as AB 1493, SB 1368, AB 32, and Executive Order S-3-5, as well as future federal and/or state regulations. Therefore, it is not possible or meaningful to calculate emissions from each of the identified related Projects and compare that with a numeric threshold or reduction target. Projects 1-6 would be consistent with the state’s goals in helping the state meet the RPS (DEIR Table 4.7-17), resulting in a GHG emission profile that is below established thresholds, and include implementation of Mitigation Measures GHG-1 to GHG-5.

Therefore, the Projects do not contribute considerably to cumulatively significant global climate change impacts. **(DEIR at 4.7-31)**.

3.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Hazards and Hazardous Materials.

Finding:

Changes or alterations have been required in, or incorporated into Project 2, which mitigate or avoid significant environmental effects to Hazards and Hazardous Materials. Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Hazards and Hazardous Materials.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all laws, ordinances, regulations and standards. It is assumed that for each of the cumulative projects, Hazardous Materials Management Plans and Hazardous Waste Management Plans would be implemented, a SWPPP would be prepared, and all applicable environmental due diligence would be conducted (i.e., a Phase I ESA). If any of the cumulative projects are within an airport land use plan or airport influence area, the projects would obtain the appropriate authorizations and permitting from the respective Airport Land Use Commission. The cumulative projects would have a less than significant impact with mitigation to hazards and hazardous materials.

Based on the land uses in the surrounding areas (primarily agricultural) and the limited amount and type of hazardous materials to be used as part of the proposed Projects 1 – 6, no significant incremental cumulative impacts associated with environmental safety are expected to occur as a result of the construction and operation of the proposed Projects 1 – 6. Regulations implemented by the Department of Toxic Substance Control ("DTSC"), LACSD, LACFD, and Cal/OSHA would require similar measures be applied to other developments in the region. Therefore, Projects 1 – 6 are not expected to result in significant incremental cumulative impacts related to hazards and hazardous materials. **(DEIR at 4.8-19 to 4.8-20)**.

3.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Hydrology and Water Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 2, which mitigate or avoid significant environmental effects to Hydrology and Water Quality. Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Hydrology and Water Quality.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Project sites, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-3). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws ordinances regulations and standards. Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. As shown in DEIR Table 3-7 and DEIR Figure 3-17, the proposed Projects would entail approximately 0.60 percent of all proposed projects within a 5-mile radius.

All cumulative projects that may be approved and implemented would also assess potential impacts related to hydrology and water quality. The proposed Projects 1 – 6 were found to have less than significant impacts related to erosion, flooding, debris deposition, and stormwater quality, with no off-site impacts. Additionally, the proposed Projects would not result in any significant or unavoidable impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5-mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative impacts associated with other projects in the Projects' region. **(DEIR at 4.9-45)**.

3.10 LAND USE AND PLANNING

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Land Use and Planning.

Finding:

Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6. The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations, and standards. **(DEIR at 4.10-43)**.

Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. Similar potential impacts can result from these projects as from the Projects with respect to consistency with the subject general plan land use plans and policies, impacts to compatibility with surrounding land uses, and regulatory compliance with zoning ordinances. All cumulative projects that may be approved and implemented would also assess potential impacts related to land use and planning. The proposed Projects were found to have less than significant impacts related to compliance with County zoning, consistency with the County General Plan Land Use Plan intent and applicable land use conformance criteria, dividing an existing community, and with no significant impacts to the adjacent City of Lancaster. Additionally, the proposed Projects would not result in any significant or unavoidable land use impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5 mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative land use related impacts associated with other projects in the region. **(DEIR at 4.10-44)**.

3.11 NOISE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative Noise impacts.

Finding:

Changes or alterations have been required in, or incorporated into Project 2, which mitigate or avoid significant Noise impacts. Project 2, in conjunction with other development projects, will not result in a cumulatively significant Noise impact.

Facts Supporting the Finding:

Two non-Applicant projects identified have the potential to result in cumulative construction noise impacts, due to the projects being located in relatively close proximity to the proposed Projects, but not close enough to result in vibration impacts. The Western Antelope Dry Ranch project (CUP 11-07) is located approximately 1-mile north of Project 2, and the High Desert LLC (CUP 10-03) project is located approximately 1-mile north of Project 4. These distances are close enough that construction noise could propagate out to distances near the Applicant's Projects, but are not close enough to potentially result in vibration impacts. The time period of construction for these two projects is unknown, but if construction were to overlap with construction of the proposed Projects, there is the potential for increased temporary noise levels at residences; however, none of the noise sensitive receptors that are located in close proximity to Project 4 are also located in close proximity to Antelope Solar 1 or Antelope Solar Farm projects. Therefore, sound levels from construction of the Projects would only be minimally increased (less than 1-2 dBA), or not at all, by simultaneous construction. Therefore, overall cumulative impacts of the proposed Projects 1 – 6 would be less than significant with implementation of Mitigation Measures N-1 to N-9. **(DEIR at 4.11-56)**.

3.12 PUBLIC SERVICES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Public Services.

Finding:

Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Public Services. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. It is assumed that for each of the cumulative projects, worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts would be implemented. **(DEIR at 4.12-16)**.

Projects 1 – 6 would not cause effects to result in significant demands to fire response times. Projects 1 – 6 would be designed with appropriate fire protection considerations, and would also result in less than significant impacts to staffing and response times. Furthermore, Projects 1 – 6 would be required to provide taxes to the County that are designed to address cumulative fire department needs associated with new and existing developments. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes and fees to the County to provide

for their potential increase to LACFD fire protection service demands (LACFD 2009). Additionally, all development in the area is subject to review and approval by the Fire Department. This ensures that all projects contain appropriate controls to reduce demand on the fire department. As a result, Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative fire protection impacts. **(DEIR at 4.12-17)**.

Projects 1 – 6 would not cause effects to result in significant demands to sheriff staffing or response times. Projects 1 – 6 would also implement site security control, including 24-hour remotely monitored video cameras for security monitoring to prevent potential theft and vandalism activities. Additionally, a portion of Projects 1 – 6 taxes levied would be allocated to sheriff services. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes that would be allocated to sheriff services. As a result, construction and operation of Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative sheriff protection impacts. Therefore, cumulative impacts associated with sheriff services would be less than significant. **(DEIR at 4.12-17)**.

Because development of Projects 1-6 will not induce population growth, no direct or cumulative impacts to schools, parks, libraries or other public facilities will occur. **(DEIR at 4.12-15; 4.12-16)**.

3.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Transportation and Traffic.

Finding:

Changes or alterations have been required in, or incorporated into Project 2, which mitigate or avoid significant impacts to Transportation and Traffic. Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Transportation and Traffic.

Facts Supporting the Finding:

Cumulative impacts for transportation and traffic are the combined effect of Projects 1 – 6 with the impacts of other past, present, and reasonably foreseeable future projects (other projects). This Cumulative Impacts discussion addresses the cumulative impacts of the Applicant's Projects 1 – 6 and the other projects within a geographic radius of 5-mile radius of the Projects (Project Study Area), which could potentially coincide with the expected construction schedule of the Applicant's Projects. Based on evaluation of the Project Study Area and available data from Los Angeles County, there are 29 other projects that have the potential to contribute additional traffic volume within the vicinity of Projects 1-6.

Evaluation of the cumulative impacts within the Project Study Area was focused on the construction-phase traffic for Projects 1-6 and other projects within a 5-mile radius. As previously stated in the individual conclusions for Project 2 above, the operational phase for each Project is anticipated to only generate a maximum of 4 vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a maximum of 12 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis contained in the DEIR, the operational phase vehicle trips/traffic for the Projects are considered negligible and would not result in a significant cumulative impact on the traffic and/or transportation infrastructure in the Project Study Area. **(DEIR at 4.13-41 to 4.13-43)**.

3.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 2), have the potential to result in cumulative impacts to Utilities and Service Systems.

Finding:

Project 2, in conjunction with other development projects, will not result in a cumulatively significant impact to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, and regulations. Construction and operation of the cumulative projects would result in less than significant impacts to public facilities, which include electricity, gas, wastewater, and solid waste services. During construction, all cumulative projects would follow required measures to prevent construction interference to utility services, and would comply with recycling requirements to minimize solid waste disposal at solid waste facilities. During operation, the solar and wind generation projects would provide electricity, and would generate minimal amounts of solid waste. During operation, the non-solar/non-wind commercial and residential development projects would generate solid waste as would be expected from these residential and commercial uses; it is assumed that these project proponents have planned for and mitigated for the additional solid waste generation as appropriate.

The proposed Projects 1 – 6 would provide their own electricity for operational needs, no natural gas would be required for their operations, little wastewater (from panel washing) would be generated as part of the operations process, and very little solid waste would be generated. As a result, the total cumulative impacts to utility services would be less than significant, and the incremental contribution of Projects 1 – 6 to cumulative impacts related to utility services would

be less than significant. Furthermore, because the Applicant has committed to using out of Basin water during construction and operations, Projects 1 – 6 would not result in a cumulatively considerable contribution to water supply impacts in the Basin, and would have no significant cumulative effect on water supply. **(DEIR at 4.14-28)**.

SECTION 4.0 FINDINGS REGARDING PROJECT ALTERNATIVES

These Findings and Statements of Fact regarding project alternatives and certain mitigation measures identified in the Final EIR are set forth to comply with Section 21002 of the Public Resources Code and Sections 15091(a)(3) and 15126.6 of the CEQA Guidelines. Five alternatives to the proposed Project (consisting of Projects 1-6) described in the Draft EIR were analyzed and considered as follows: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites Alternative; 4) Rooftop Solar Generation Alternative; and 5) Wind Energy Generation Alternative. These alternatives constitute a reasonable range of alternatives necessary to permit a reasoned choice. For the reasons set forth below, Alternatives 1-5 are rejected as infeasible for the specific economic, legal, social, technological, or other considerations set forth below.

4.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

Description:

Under the No Project Alternative, Project sites 1-6 would remain in their present condition with site conditions (i.e., fallow agricultural land) as they currently exist.

Finding:

The No Project Alternative is rejected as infeasible because it fails to meet the Project goals and objectives, and would not contribute to the State's ability to meet its near- and long-term renewable energy generation goals and objectives.

Facts Supporting the Finding:

The proposed Projects 1 – 6 would not be approved or implemented under the No Project Alternative. The potential environmental impacts and benefits of the proposed Projects would not occur as a direct consequence of implementation under the No Project Alternative. The No Project Alternative would involve taking no action to generate 172 MW of clean, renewable electrical power utilizing solar PV technology and to integrate the electrical output of the Projects into the electrical grid. This alternative would not allow one of the primary purposes of the proposed Projects which is to increase the output of renewable energy in support of the RPS, such that the State of California may meet its current and planned goals for increasing renewable generation at reasonable market rates.

The No Project Alternative assumes that the sites will remain as they currently exist (primarily fallow agricultural land) and no environmental impacts would result. In summary, the No Project Alternative is provided for comparative purposes to the proposed Projects 1 – 6. This alternative is incapable of meeting the stated goals and objectives of the Projects to provide 172 MW of

renewable electric energy to utility providers, and does not contribute to the state's ability to meet its near-term and long-term renewable energy generation goals and objectives. **(DEIR 5-1 to 5-2)**.

4.2 ALTERNATIVE 2: LOWER INTENSITY PROJECTS

Description:

Under the Lower Intensity Projects Alternative, fewer than six sites would be developed, and the smaller projects would be developed in a size and configuration that would result in generation of fewer than 172 MW of electricity.

Finding:

The Lower Intensity Projects Alternative is rejected as infeasible because it partially fails to accomplish the goals of the proposed Projects, which are to provide 172 MW of clean, renewable electric energy using solar PV technology, and to deliver the electric output on a wholesale basis to utility providers.

Facts Supporting the Finding:

Projects 1-6 are designed to meet the increasing demand for clean, renewable electrical power. Any reduction in the size of the effort results in a similar potential reduction in the reliance on foreign sources of fuel, the diversification of energy portfolios, the contribution to the reduction of GHG emissions, and the generation of "green" jobs. It would also potentially reduce the contribution to the much needed on-peak power to the electrical grid in California.

The opportunity to develop solar power in Los Angeles County has a limited timeframe because the utility companies, which purchase the power, would purchase power from another entity if the proposed Projects are not completed in a timely manner. If Los Angeles County does not approve the six viable SGFs proposed here, the opportunity to contribute to the competitive solar generation business in the County will be further lost to other projects. The proposed Projects are well-positioned to compete in the industry, are comparatively environmentally superior to most other locations, and have good positions for PPAs and interconnection agreements. Additionally, any reduction of the megawatts produced from these Projects would further limit the County's contribution to the State's renewable energy production goals. These 5 to 52 MW Projects meet the utility industry needs for small projects, and any reduction of the respective Projects' size would jeopardize the success of the Projects. **(DEIR at 5-2)**.

4.3 ALTERNATIVE 3: SELECT OTHER PROJECT SITES ALTERNATIVE

Description:

Under the Select Other Project Sites Alternative, other properties could potentially be used for the six Project sites.

Finding:

The Select Other Project Sites Alternative is rejected, because this alternative would have the same or greater impacts to the environment as Projects 1-6, which can all be mitigated to below a level of significance.

Facts Supporting the Finding:

One key objective for the Project Applicant was to locate the Projects in an area with the following characteristics: (1) adequate solar radiation; (2) close proximity to interconnection locations for each solar site; (3) project sites with landowners who are willing to sell large enough parcels of land for solar generation at market price; (4) lack of threatened and/or endangered biological species on the site; (5) lack of nearby sensitive receptors or land uses to minimize potential conflicts with development (6) relatively flat sites that have previously been disturbed to minimize disturbance to native habitat and to minimize the need for site grading; (7) existing access to accommodate construction workforce needs; and (8) access to nearby workforce to minimize traffic and socioeconomic impacts. The Applicant performed in-depth analyses of over 10,000 acres of land in the Western Antelope Valley, as shown in DEIR Figure 6-1. Of the 10,000 acres screened, only ten percent met the criteria listed above.

The six Project sites selected and proposed by the Applicant are the most viable sites to develop solar electricity generation with minimal environmental impacts. These sites were also chosen for development based on interconnection capacity and requirements placed on the Applicant by the utility providers. Selection of other alternative sites would have the same or greater impacts to the environment since the present Projects are the result of a long and intense effort by the Applicant to find and acquire the most suitable sites according to the criteria given above. **(DEIR at 1-6; 5-3)**. Furthermore, the environmental impacts for Projects 1-6 can all be mitigated to below a level of significance.

4.4 ALTERNATIVE 4: ROOFTOP SOLAR GENERATION

Description:

Under the Rooftop Solar Generation Alternative, solar photovoltaic panels would be installed on private rooftops.

Finding:

The Rooftop Solar Generation Alternative is rejected as infeasible, because the Project Applicant does not have the ability to install solar panels on private rooftops.

Facts Supporting the Finding:

For rooftop solar to be a viable alternative to the proposed Projects it would need to provide 172 MW of electricity into the local grid. Assuming one residential installation can produce 25 kilowatts of electricity, a total of 6,880 residential installations would be needed to produce 172

MW of electricity. The Applicant does not have the ability to install solar panels on private rooftops; therefore this alternative is not feasible for the Applicant. **(DEIR at 5-3)**.

4.5 ALTERNATIVE 5: WIND ENERGY GENERATION

Description:

Under the Wind Energy Generation Alternative, electricity would be generated through the use of wind turbines.

Finding:

The Wind Energy Generation Alternative is rejected as infeasible, because the type of geographical location that is suitable for a wind farm is not available within the vicinity.

Facts Supporting the Finding:

For wind energy generation to be a reasonable alternative to the proposed Projects and meet the purpose and need of the proposed Projects, it would need to provide 172 MW of electricity into the local grid; and to be sited on previously disturbed land that utilizes existing electrical distribution facilities, ROWs, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities. The area required for construction and operation of a 172 MW wind farm would require a much more specific type of geographical location than the Projects to provide adequate wind; a feasible project area of the nature required for wind electricity production is not readily available within the area of analysis for the proposed Projects. For this reason, this alternative is infeasible. **(DEIR at 5-3)**.

SECTION 5.0 FINDINDS REGARDING THE MITIGATION MONITORING AND REPORTING PROGRAM ("MMRP")

Pursuant to Section 21081.6 of the Public Resources Code, the Commission, in adopting these Findings, also adopts the MMRP for the Silverado Power West Los Angeles Project. This Program is designed to ensure that, during Project implementation, the County and other responsible parties will comply with the mitigation measures adopted in these Findings.

The Commission hereby finds that the MMRP, which is incorporated herein by reference and attached as Exhibit A to these Findings, meets the requirements of Public Resources Code Section 21081.6 by providing for the implementation and monitoring of Project conditions intended to mitigate potential environmental effects of the Project.

SECTION 6.0 CEQA GUIDELINES SECTION 15091 AND 15092 FINDINGS

Based on the foregoing findings and the information contained in the administrative record, the Commission has made one or more of the following findings with respect to each of the significant effects of the Project:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Based on the foregoing findings and the information contained in the administrative record, and as conditioned by the foregoing:

A. All significant effects on the environment due to the Project have been eliminated or substantially lessened where feasible.

SECTION 7.0 CEQA GUIDELINES SECTION 15084(D)(3) AND 15084(D)(4) FINDINGS

The County has relied on Sections 15084(d)(3) of the State CEQA guidelines, which allow acceptance of working drafts prepared by the Applicant, a consultant retained by the Applicant, or any other person. The County has also relied upon Section 15084(d)(4), which allows the Draft EIR to be prepared directly by, or under contract by the lead agency. The County has reviewed and edited as necessary the submitted drafts to reflect the County's own independent judgment, including reliance on County technical personnel from other departments.

SECTION 8.0 PUBLIC RESOURCES CODE SECTION 21082.1(C) FINDINGS

Pursuant to Public Resources Code Section 21082.1(c), the Commission hereby finds that the lead agency has independently reviewed and analyzed the Final EIR, and that the Final EIR reflects the independent judgment of the lead agency.

SECTION 9.0 NATURE OF FINDINGS

Any finding made by this Commission shall be deemed made, regardless of where it appears in this document. All of the language included in this document constitutes findings by this Commission, whether or not any particular sentence or clause includes a statement to that effect. This Commission intends that these Findings be considered as an integrated whole and, whether or not any part of these Findings fail to cross reference or incorporate by reference any other part of these findings, that any finding required or committed to be made by this Commission with respect to any particular subject matter of the Final EIR, shall be deemed to be made if it appears in any portion of these Findings.

SECTION 10.0 RELIANCE ON RECORD

Each and all of the findings and determinations contained herein are based on the competent and substantial evidence, both oral and written, contained in the entire administrative record relating to the Silverado Power West Los Angeles County Project. The findings and determinations

constitute the independent findings and determinations of this Commission in all respects, and are fully and completely supported by substantial evidence in the record as a whole.

SECTION 11.0 RELATIONSHIP OF FINDINGS TO EIR

The County finds and declares that substantial evidence for each and every finding made herein is contained in the EIR or is in the record of proceedings in the matter.

SECTION 12.0 CUSTODIAN OF RECORDS

The custodian of the documents or other material which constitute the record of proceedings upon which the County's decision is based is the Los Angeles County Department of Regional Planning located at 320 West Temple Street, Los Angeles, California 90012.

EXHIBIT A
MITIGATION MONITORING AND REPORTING PROGRAM
("MMRP")

CEQA requires a Mitigation Monitoring and Reporting Program (MMRP) for projects where mitigation measures are a condition of project approval and development. The Draft EIR prepared for the Silverado Power West, Los Angeles County Projects identified mitigation measures, where appropriate, to avoid or substantially reduce the environmental impacts associated with the Project. This MMRP is designed to monitor the implementation of those mitigation measures. Accordingly, this MMRP has been prepared in compliance with the requirements of CEQA Section 21081.6 and CEQA Guidelines Section 15097.

This section lists each of the proposed Project Design Features (PDFs) and required Mitigation Measures (MMs) and identifies the corresponding action required for proof of compliance, the mitigation timing, the party responsible for implementation, and the monitoring agency or party responsible for ensuring each measure is adequately implemented.

Mitigation Monitoring and Reporting Program
Silverado Power West, Los Angeles County Projects
Project Nos. R2011-00833, 00798, 00799, 00807, 00801, 00805
March 2014

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.1 AESTHETICS				
A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.	A. Submit Plan to AVAQMD for review and approval	Prior to any ground disturbance activities	Applicant/Construction Manager	LACDRP AVAQMD
	B. Maintain log demonstrating compliance. Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD
A-2 The Project site shall be maintained free of debris, trash, and waste during construction.	Site inspection	During construction	Applicant	LACDRP
A-3 The Project site shall be visually screened or partially screened during construction by fencing.	A. Submit Site Plans for review and approval	Prior to issuance of applicable building permit	Applicant	LACDRP
	B. Site inspection as needed	During construction	Applicant	LACDRP
A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.	A. Submit landscape plan for review and approval. The landscape plan must be approved prior to grading or building permit.	Prior to 1st grading or building permit whichever comes first for each project.	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
	B. Implement approved landscape plan	Prior to first energization approval by LADPW B & S	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on	Submit final lighting plan for review and approval	Prior to issuance of building permit(s)	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
essential infrastructure rather than on separate light poles except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.				
5.2 AGRICULTURE AND FORESTRY				
No mitigation measures are required for Agriculture and Forestry.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.3 AIR QUALITY				
AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVQMD
AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of CVC Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Submit Transportation Demand Management program for review and approval	Prior to issuance of building permits	Applicant/Construction Manager	LACDRP LACDPW support and referral for trip reduction determination

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation, to the greatest extent feasible, approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager/Biologist	LACFD LACDRP
AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP AVAQMD
AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.4 BIOLOGICAL RESOURCES				
B-1 Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess	A. Retain qualified Biologist(s)	Prior to issuance of Grading Permit	Applicant/Construction Monitor	LACDRP CDFW
	B. Field Surveys	Prior to grading permit	Applicant	LACDRP CDFW
	C. Maintain daily monitoring reports	During Construction	Applicant/Construction Monitor	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to DRP and CDFW at their request.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-2 Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below. • Pre-survey information gathering will include reviewing of all available agency nest data and mapping. • A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted. • Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds. • A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to	Pre-construction surveys for special-status species that have been identified as having potential to occur on site	Prior to grading or as specified per species	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012). If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals. Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand excavated and collapsed under the supervision of the avian biologist. Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals. • Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.				
B-3 During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or	Biological Monitoring	During construction	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-4 Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily. <u>Swainson's hawk</u>: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity. The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats: Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows: • A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed Significant Ecological Area (SEA). • A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat; • A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat. <u>Burrowing Owl</u>: Mitigation for any occupied burrowing owl burrows found during pre-construction surveys will include a comprehensive tiered approach: • Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;	A. Acquire mitigation lands for Swainson's Hawk	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	B. Acquire mitigation lands for Burrowing Owl	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	C. Pre-construction survey for Alkali Mariposa Lilies	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	D. If necessary Acquire Alkali Mariposa Mitigation land	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
• Disturbance avoidance of occupied burrows during nesting period February 1 – August 31; • Impact avoidance of occupied burrows; • Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW). • Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback). • Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project. <u>Alkali Mariposa Lily</u>: Alkali mariposa lily will be avoided to the greatest extent possible. If pre-construction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable. For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-5 Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria: <u>Habitat Management Land Selection Criteria</u>: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired. Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred. <u>Habitat Management Lands Acquisition</u>: Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW. The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s)	A. Obtain approval of habitat management lands	Prior to Acquisition	Applicant	LACDRP CDFW
	B. Record a permanent deed restriction or conservation easement on mitigation land(s)	Within 45 days of acquiring land(s)	Applicant	LACDRP CDFW
	C. Establish fund in the amount acceptable to LACDRP and CDFW for restoration, enhancement, and maintenance of the mitigation lands	Within 90-days of mitigation land(s) acquisition	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
acquisition in an amount acceptable to the LACDRP and CDFW.				
Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the applicant shall provide a proposed date of purchase which coincides with construction of the facility.				
B-6 Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.	Enter into an agreement with CDFW pursuant to sections 1601 through 1603	Prior to alteration of Streambed	Applicant	CDFW
B-7 Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads as follows: Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.	Revegetation of interior site, excluding interior roads	After construction	Applicant	LACDRP
5.5 CULTURAL RESOURCES				
CUL-1 In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist, in consultation with the Native American Monirot shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources	A. Archaeological monitoring and Native American monitor when there is a find	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP NAHC
	B. Maintain log demonstrating compliance	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During earthmoving activities	Applicant/Construction Manager/Qualified	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.			Archaeologist	
CUL-2 In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.	A. Archaeological and Native American monitoring	During construction	Applicant/Construction Manager/Qualified Archaeologist/NAHC representative	LACDRP NAHC
	B. Maintain documentation demonstrating compliance	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-3 Project 4 construction of gen-tie lines shall maintain the right of way buffer zones prescribed by SCE for this historic electric transmission line resource, which is an active transmission line. This Mitigation Measure shall apply to Project 4 only.	Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-4 Project construction for Project 4 shall maintain a one acre undisturbed area surrounding the Del Sur Cemetery	A. Submit pre-construction surveys	Prior to construction	Applicant/Qualified Archaeologist	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
site. This Mitigation Measure shall apply to Project 4 only.	B. Construction monitoring by qualified Archaeologist	During construction	Applicant/Qualified Archaeologist	LACDRP
	C. Submit construction monitoring documentation	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
	D. Site inspection as needed	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
CUL-5 A County approved archaeologist will be retained to initiate and supervise cultural resource monitoring during Project related earthwork in areas of the Project that are within 50 feet from certain significant cultural resources, specifically from the defined perimeter of site CA-LAN-1579H (Project 4). If resources are identified, the procedures outlined in CUL-1 will be followed and/or CUL-2 (as necessary). This Mitigation Measure shall apply to Project 4 only.	A. Archaeological monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	B. Maintain log demonstrating compliance	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. A The paleontologist shall develop and execute a Paleontological Resource Mitigation and Monitoring Program and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment according to the Program.	Paleontological Monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Paleontologist	LACDRP LAC Natural History Museum support/referral
5.6 GEOLOGY AND SOILS				
No mitigation measures are required for Geology and Soils.	N/A	N/A	N/A	N/A
5.7 GREENHOUSE GAS EMISSIONS				
GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment	A. Submit operating permit(s) as required	Prior to commencement of construction	Applicant	AVAQMD LACDRP
	B. Maintain log	During construction	Applicant/Construction	AVAQMD

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	demonstrating compliance		Manager	LACDRP
GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-3 The off-road construction equipment drivers shall have proper training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-4 Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.	Site inspection as needed	During construction and grading	Applicant/Construction Manager	AVAQMD LACDRP
GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Maintain log demonstrating compliance	Prior to Building Permit	Applicant/Construction Manager	AVAQMD LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.8 HAZARDS/HAZARDOUS WASTES				
HH-1 Prior to the start of construction activities, a Hazardous Materials Management Plan shall be implemented for each project.	Submit Hazardous Materials Management Plan	Prior to start of construction	Applicant	DTSC
HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.	Submit Hazardous Waste Management Plan for each Project	Prior to start of construction	Applicant	DTSC
HH-3 Prior to the start of construction activities on the parcel containing the historic UST at the location of Project 1, a Phase I ESA will be completed. This mitigation measure only applies to Project 1.	Phase I ESA	Prior to issuance of grading permit(s)	Applicant	LACDRP
HH-4 Prior to the start of construction activities, a closure permit for the UST will be verified or obtained from the Los Angeles County Fire Department, Health Hazardous Materials Division. This mitigation measure only applies to Project 1.	Closure permit or verification for UST – Project 1 site	Prior to issuance of grading permit(s)	Applicant	LACFD
HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated	Testing of soil contamination	Prior to start of construction	Applicant	DTSC LACDRP
5.9 HYDROLOGY/WATER QUALITY				
Construction				
HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be	Maintain log demonstrating compliance of Educational materials and training for Property Owners, Tenants, Occupants, and Employee	During Construction	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
available at each project site and a log kept to show education has occurred prior to the start of construction.				
HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit spill contingency plan	Prior to grading permit	Applicant	LACDRP
HYDRO-3 No hazardous materials are anticipated to be stored on-site. If deemed otherwise, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Maintain log demonstrating compliance	During construction and operations	Applicant/Construction Manager	LACFD
HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance of the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit all applicable information	Prior to grading permit	Applicant	LACFD
Operation				
HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often if containers approach overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area/room is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.	A. Include waste collection and disposal methods in construction contract specifications	During operation	Applicant	LACSD LACDRP
	B. Maintain log demonstrating compliance	During operation	Applicant	LACSD LACDRP
5.10 LAND USE AND PLANNING				
No mitigation measures are required for Land Use and Planning	N/A	N/A	N/A	N/A
5.11 NOISE				
N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise	Maintain log of construction equipment arrivals and exit times demonstrating	During construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.	compliance			
N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
	B. Inclusion of requirement for a Noise Control Plan	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest NSR are predicted to be above the County construction noise limit of 60 dBA during the day.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
	B. Site inspection as needed	During Construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-8** Siting substations to achieve NEMA sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project: • Project 1 – 325 feet with a NEMA sound rating of 74 dBA • Project 2 – 1,511 feet with a NEMA sound rating of 81 dBA • Project 3 – 650 feet with a NEMA sound rating of 74 dBA • Project 4 (two transformers) – 1,000 feet with a NEMA sound rating of 77 dBA • Project 5 – 748 feet with a NEMA sound rating of 82 dBA	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-9** The Applicant shall choose to use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
5.12 PUBLIC SERVICES				
No mitigation measures are required for Public Services	N/A	N/A	N/A	N/A
5.13 TRANSPORTATION/TRAFFIC				
TT-1 Prior to issuance of first grading or building permit, Applicant shall document and submit all required information	Submit Projects' road survey	Prior to issuance of first grading or building	Applicant	LACDPW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.		permit		
TT-2 The County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-00798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.	Provide street closure notifications	Three days prior to any street closures impacting fire and/or paramedics	Applicant/Construction Manager	LACFD
TT-3 Stagger construction work shifts before or after peak traffic hours.	A. Maintain log demonstrating compliance	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
	B. Site inspection as needed	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
TT-4 Schedule truck deliveries during off peak hours.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-5 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-6 Encourage carpooling between construction works.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.14 UTILITIES				
No mitigation measures are required for Utilities.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
List of Acronyms: B & S – building and safety BMP – Best Management Practice CEQA – California Environmental Quality Act CASQA – California Association of Stormwater Quality Agencies CBC – California Building Code CDFW – California Department of Fish and Wildlife CUP – Conditional Use Permit CVC – California Vehicle Code dBA – decibels (acoustics) DPR – Department of Parks and Recreation ESA – Environmental Site Assessment hp – Horsepower LACDPW – Los Angeles County Department of Public Works LACFD – Los Angeles County Fire Department mph – miles per hour NEMA – National Electrical Manufacturers Association OSHA – Occupational Safety and Health Administration PRC – Public Resources Code ROW – Right of Way SCE – Southern California Edison SWPPP – Stormwater Pollution Prevention Plan UFC – Uniform Fire Code UST – Underground Storage Tank WATCH – Work Area Traffic Control Handbook LACDPH – Los Angeles County Department of Public Health LACSD – Los Angeles County Sanitation District				

FINDINGS OF FACT REGARDING THE ENVIRONMENTAL IMPACT REPORT

FOR THE SILVERADO POWER WEST LOS ANGELES COUNTY PROJECT

PROJECT SITE NO. 3 (American Solar Greenworks)

COUNTY PROJECT NO. R2011-00799-(5)

CONDITIONAL USE PERMIT NO. 201100071

ENVIRONMENTAL ASSESSMENT NO. 201100109

STATE CLEARINGHOUSE NO. 2012061068

PROJECT FINDINGS ORGANIZATION

Section 1	Introduction
Section 2	Findings Regarding Potential Environmental Effects Which Are Not Significant or Which Have Been Mitigated to a Less than Significant Level
Section 3	Findings Regarding Cumulative Environmental Effects Which are Not Significant or Which Have Been Mitigated to a Less Than Significant Level
Section 4	Findings Regarding Project Alternatives
Section 5	Findings Regarding the Mitigation Monitoring and Reporting Program
Section 6	CEQA Guidelines Section 15091 and 15092 Findings
Section 7	CEQA Guidelines Section 15084(D)(3) and 15084(D)(4) Findings
Section 8	Public Resources Code Section 21082.1(C) Findings
Section 9	Nature of Findings
Section 10	Reliance on Record
Section 11	Relationship of Findings to EIR
Section 12	Custodian of Records
Exhibit A	Mitigation Monitoring and Reporting Program ("MMRP")

SECTION 1.0 INTRODUCTION

The County of Los Angeles ("County") Regional Planning Commission ("Commission") hereby certifies and finds that the Silverado Power West Los Angeles County ("Project") Final Environmental Impact Report ("Final EIR"), State Clearinghouse Number 2012061068, has been completed in compliance with the California Environmental Quality Act (Public Resources Code Sections 21000 et seq., "CEQA") and the State CEQA Guidelines (Title 14, Cal. Code Regs. Sections 15000 et seq., "CEQA Guidelines").

The Project Final EIR consists of the following documents: (1) December 2013 Draft Environmental Impact Report ("Draft EIR" or "DEIR"); (2) December 2013 Technical Appendices to the Draft EIR; and (3) March 2014 Final EIR.

The Commission hereby further certifies that it received, reviewed and considered the information contained in the following: (i) the Final EIR; (ii) the application for Conditional Use Permit No. 201100071; and (iii) all hearings, and submissions of testimony from County officials and departments, the Applicant (as defined herein), the public, other public agencies, community groups, and organizations.

Concurrently with the adoption of these findings, the Commission adopts a Mitigation Monitoring and Reporting Program ("MMRP"), attached hereto as Exhibit A. Having received, reviewed and considered the foregoing information, as well as any and all information in the administrative record and the record of proceedings, the Commission hereby makes the following Findings of Fact ("Findings") pursuant to and in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15090:

SECTION 1.1 PROJECT BACKGROUND

1.1.1 Project Location.

The Project site is located in the northern portion of unincorporated Los Angeles County. The EIR analyzed a total of six (6) individual Project sites (collectively, "Projects" or "Projects 1-6"), which will each be subject to separate review and approval by the County.[1]

These Findings specifically pertain to "Project 3", which is approximately 135.6 acres and located approximately seven miles northwest of downtown Lancaster, located at 70th Street West and West Avenue G. The Assessor's Parcel Numbers ("APNs") for Project 3 are 3268-018-035, 3268-018-002, and 3268-018-036. When complete, Project 3 would produce 35 megawatts ("MW") of electricity from solar photovoltaic modules.

[1] The six individual Projects are not dependent upon each other for success. Each Project can succeed as a stand-alone project if other projects are not approved by Los Angeles County or if technical or financial problems delay or block the completion of a Project. CEQA allows for a group of projects to be analyzed as a single EIR; each Project must also receive approval of its CUP application and other entitlements on the merits of the individual Project and individual site.

1.1.2 Project Description—Features Common to Projects 1 - 6.

There are certain general Project characteristics and features that will apply to each of the individual six Project sites, including Project 3, as follows:

All six of the Projects would be designed and built using the same or similar methods and would have similar Project characteristics. The Projects would utilize photovoltaic ("PV") technology on fixed-tilt or tracker mounting supports. The proposed PV Projects would be constructed in phases and operated for an estimated 35 years. Construction would generally take place during normal daylight hours and would conform to County construction requirements.

Each Project would consist of the following elements:

- PV modules;
- PV module mounting system;
- Balance of system and electrical boxes (e.g., combiner boxes, electrical disconnects);
- Substation (Projects 1 – 5);
- Electrical inverters and transformers;
- Electrical AC collection system, including switchgear;
- Data monitoring equipment;
- Generation tie line; and
- Access roads and chain link perimeter security fencing.

<u>Solar PV Generating Facilities</u>

The Solar Generating Facilities ("SGFs") are designed for optimum performance and ease of maintenance. The Projects would consist of a series of PV module arrays mounted on racking systems, which are typically supported by a pile-driven foundation design. The foundation design would be determined based on the full geotechnical survey. The module mounting system, or racking system, would have a fixed-tilt or tracker PV array configuration and would be oriented south to maximize the amount of incident solar radiation absorbed over the course of the year. Electricity from a series of PV arrays would be funneled and combined at combiner boxes located throughout the SGF. The electrical current would then be further collected and combined prior to feeding the inverters. The SGF would be laid out in a PV block design to allow adequate area for maintenance in the way of clearances or access roads.

Inverters would be consolidated in areas to minimize cable routing and trenching and ensure minimal electrical losses. The alternating current ("AC") from the inverters would be routed through an AC collection system and consolidated within system switchgear. The final output from the SGF would be processed through a transformer to match the interconnection voltage. Electrical safety and protection systems would be provided to meet utility, International Organization for Standardization, and regulatory codes and standards. The energy would be

delivered to the regional electrical distribution network. A security perimeter fence with appropriate signage for public protection would be installed. Points of ingress/egress would be accessed by locked gates for facility services and maintenance.

Photovoltaic Modules

The SGFs would require installation of PV modules. The total number of PV modules required would depend on the technology selected, optimization evaluation, and detailed design. The market conditions, economic considerations, and the environmental factors would be taken into account during the detail design process. The following PV module technologies or equivalent are being considered for incorporation into the Projects:

- PV thin-film technology
- PV crystalline silicon technology
- Fixed-tilt configuration; and
- Tracking design configuration.

The modules configured with a fixed tilt would be oriented toward the south and angled at a degree that would optimize solar resource efficiency. For the tracking configuration, the modules would rotate from east to west over the course of the day. Modules would be non-reflective and highly absorptive.

Standard Installation, Array Assembly, and Racking

The final racking system would be determined by optimization evaluations and economic assessments and incorporated into the detailed design. Likewise, the final foundation design would be determined based on the geotechnical survey for each of the PV Project locations. Once the foundation has been installed, the module mounting system would be installed on it. For a tracking configuration, motors would be installed to drive the tracking mechanism. The PV modules would be delivered to each site during construction to support the installation schedule. The module mounting system would be oriented in rows within a PV design block, presenting a standard and uniform appearance across the facility. The panel configuration would be uniform in height and width.

Collection, Inverters, AC Collection, and Transformers

Modules would be electrically connected into strings. Each string would be funneled by electrical conduit (typically underground) wiring to combiner boxes located throughout the solar field power blocks. The output power cables from the combiner boxes would be again consolidated and feed the direct current ("DC") electricity to inverters, which convert the DC to AC. Underground electrical cables would be installed using ordinary trenching techniques, which include excavation of trenches to accommodate conduits. Wire depth and trench backfill would be in accordance with local, state, and federal codes.

The AC energy would be stepped up to the appropriate interconnection voltage by system transformers to match the voltage at the grid interconnection. As required, switchgear cabinetry

would be provided where necessary for circuit control. All electrical inverters, transformers, and gear would be placed on concrete foundation structures.

Commissioning of equipment would include testing, calibration of equipment, and troubleshooting. All electrical equipment, inverters, collector system, and PV array systems would be tested prior to commencement of commercial operations.

Substations

For Projects 1, 2, 3, 4, and 5, which require substations, the area for the substations would be appropriately graded and excavated to accommodate transformer equipment, the control building foundation, and oil containment area. Foundations for equipment within each approximately 1-acre substation would be constructed with reinforced concrete.

Structural components in the Project substation area would include:

- Transformers, switchgear, and safety systems; and
- Footings and oil containment system for transformers.

Interconnection Descriptions

Each inverter would be fully enclosed and pad mounted and would be approximately 90 inches in height. The AC output of two inverters would be fed via underground cable into the low-voltage side of the inverter step-up transformer, generally within 20 feet of the inverters. Each transformer would be mounted on a concrete pad and enclosed together with switchgear and a junction box. Transformers are typically 87 inches in height. The high-voltage output of the transformer would be combined in series via underground collector cables to the junction box of the nearest transformer, ranging from as little as 60 feet to as much as 700 feet. The collector system cables would be tied throughout the SGF at underground junction boxes to the main underground collector cables, which would be composed of a larger wire gauge, to the location of the generator step-up transformer ("GSU"), as applicable at each Project location. The main collector cables would rise into the low-voltage busbar and protection equipment that would be enclosed together with the GSU. The primary switchgear includes the main circuit breaker and utility metering equipment, and it would be enclosed separately but pad-mounted together with the GSU. Both the GSU and the primary switchgear would stand approximately 87 inches in height.

The output of the switchgear would be the start of the Project generation tie ("gen-tie") line. The connections from the SGFs to the regional transmission lines are made through the construction of gen-tie lines. Los Angeles County requires that all gen-tie lines be underground except when other applicable regulations require otherwise, and Projects 1 − 6 are each designed in this manner. Each gen-tie line would consist of three phases of either underground or overhead conductor and a disconnect switch. The overhead conductor would be mounted on either wooden or tubular steel poles of varying heights ranging from 55 to 85 feet. Pole height would be determined by the span between poles as defined in the final design for each Project.

Data Collection Systems

Each Project would be designed with a comprehensive Supervisory Control and Data Acquisition ("SCADA") system for remote monitoring of facility operation and/or remote control of critical components. Within the site, the fiber optic or other cabling required for the monitoring system, would be installed with the gathering line system throughout the solar field leading to a centrally located (or series of appropriately located) SCADA system cabinets. The external telecommunications connections to the SCADA system cabinets may be through either wireless or hard-wired telecommunications to a centralized data collection center.

The system would also include a permanent meteorological data collection system. The station would have several weather sensors: a pyranometer for measuring solar irradiance, a thermometer to measure air temperature, a barometric pressure sensor, and two wind sensors to measure speed and direction. These sensors would be connected to a data logger, which would compile the data for transmission to the data collection center.

Construction

Construction for each of the six Project facilities consists of three major phases: (1) site preparation, (2) PV system installation testing and startup, and (3) site cleanup/restoration. Best Management Practices ("BMPs") would be required during all construction phases of the Projects. A Storm Water Pollution Prevention Plan ("SWPPP") incorporating BMPs for erosion control would be prepared and approved before the start of construction. The Projects would also comply with applicable post-construction water quality standards adopted by the Regional Water Quality Control Board ("RWQCB").

PV System Installation

PV system installation includes earthwork, grading, and erosion control, as well as construction of the plant substation and erection of the PV modules, supports, and associated electrical equipment. System installation would begin with teams installing the steel/concrete piers support structures. The exact design would be finalized pending evaluation of soil conditions.

The proposed method of installation would be the use of vibration-driven pile foundations. This step would be followed by panel installation and electrical work. A very limited volume of concrete would be required for the substation footings, foundations, pads for the transformers, and other substation equipment. Silverado Power, LLC ("Applicant") does not propose to use excavated and poured footings or foundations for the PV arrays. Concrete would be produced at an off-site location by a local provider and transported to the Project sites by truck.

The enclosures housing the inverters have a pre-cast concrete base. Final concrete specifications would be determined during detailed design engineering consistent with applicable building codes. The primary site preparation method for the PV modules would be mowing, because the majority of the six sites are very flat with little change in topography. However, there may be a few instances where limited earthwork, including ponding area leveling of less than one foot in depth, and erosion control cultivation may be required to accommodate the placement of PV arrays. Other than required grading for roads, pads, and drainage features, and standard

trenching and installation work, no other earthwork would be performed within the array areas. Erosion control techniques used during construction may include the use of silt fencing, straw bales, temporary catch basins, inlet filters, and truck tire muck shakers. Construction of the PV arrays includes the installation of support beams, module rail assemblies, PV modules, inverters, transformers, and buried electrical cables.

Wastes generated during construction may include the following: cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spools. The Applicant does not expect to generate hazardous waste during construction. However, field equipment used during construction would contain various hazardous materials such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles.

Operations & Maintenance

Upon commissioning, the Projects would enter the operational phase. For the duration of the operational phase, the Projects would be operated and monitored remotely by a third party contractor, with an assumed two on-site visits for security, maintenance, and system monitoring per quarter (total of eight trips per year) by two third party employees in one light duty truck, and two on-site visits by four third party employees for biannual panel washing that includes one light duty truck and one water truck. Therefore the trips would be no more than 10 trips annually for security, maintenance, system monitoring and panel washing. There would be no personnel stationed on-site full time during operations. The PV arrays would produce electricity passively with minimal moving parts; therefore, maintenance requirements would be limited. Any required planned maintenance would be scheduled to avoid peak-load periods, and unplanned maintenance would typically be responded to as needed depending on the event.

Security

To ensure the safety of the public and the facilities, the sites would be fenced and signs would be posted. Security measures would be installed as necessary to mitigate and/or deter unauthorized access. Access to the sites would be controlled and gates would be installed at the roads entering the property.

Decommissioning Plan

A Decommissioning Plan for each of the Projects would be prepared and submitted for approval to Los Angeles County prior to obtaining a grading permit. The plan would assure that the land is protected during operations and returned as closely as possible to its original state upon termination of the use of the land as a SGF. It is unknown at this time if solar energy electricity production would continue to be utilized on this land in excess of 35 years, and thus the future long-term use of the site beyond 35 years is unknown. The life of each facility is presently proposed to be 35 years. The Decommissioning Plan would be implemented in the early summer of the year or year following the time of facility closure thus allowing the site reclamation to be completed outside of the rainy season and before winter begins. In the event that a Project ceases

operations prior to completion of the 35-year estimated life of the Project, applicable provisions of the Decommissioning Plan would commence.

Section 1.1.3 Project Description—Features Unique to Project Site 3

Project 3 (American Solar Greenworks) would have a generating capacity of 35 MW-AC and would be located on 135.6 acres of unproductive agricultural land in unincorporated northern Los Angeles County. Project 3 would operate year-round, producing electric power during daytime hours.

The power generated by Project 3 would be connected to the existing SCE 66 kV transmission line with the voltage transformation equipment and system safety equipment constructed on the site. Project 3 would interconnect from the Project 3 substation in the northeast corner of the Project site, due north to the existing 66 kV transmission line that runs east-west on the south side of the road, near the intersection of West Avenue G and 70th Street West.

Project 3 Telecommunications Lines

The primary telecommunication method for Project 3 is expected to be direct fiber optic cables placed overhead or underground along the path of the gen-tie line within the public ROW or located on private land, extending from the Project 3 site to existing or proposed telecommunication infrastructure. A dedicated broadband connection from a local provider will be secured at the site.

Project 3 Construction

Project 3 site preparation and construction is expected to begin in the second quarter of 2014 and will last approximately seven months. Project 3 is expected to be commercially operational by the fourth quarter of 2014. The on-site workforce would consist of laborers, electricians, supervisory personnel, support personnel, and construction management personnel. Construction would generally occur during daylight hours, Monday through Friday. Construction activities would be conducted consistent with Los Angeles County regulations regarding hours of construction. Project 3 is expected to create 130 new jobs at peak crew size during the construction phase.

The expected construction water use for Project 3 is 82 acre feet, which would be trucked to this site from a private provider of out of Basin or other authorized water. Construction water needs would be limited to soil conditioning and dust suppression. Potable water would be brought to the Project 3 site for drinking and domestic needs.

Project 3 Operations

No personnel would be stationed at the facility, and no occupied structures would be built on the site. Full and part-time positions over the life of the Project would be required for periodic operation and maintenance activities, and would be performed by a third-party contractor. Operational water requirements for Project 3 would be 5.1 acre feet per year ("AFY").

Section 1.1.4 Discretionary Actions Required for Project 3

Implementation of Project 3 will require the following discretionary approval action by the County:

- **Conditional Use Permit ("CUP")**: To authorize the construction and operation of a solar photovoltaic electricity generating plant on 136 acres and installation of a water tank in the A-2-2 Zone. The project meets the definition of "electric generating plant" in the Los Angeles County Zoning Code. Pursuant to Section 22.24.150, electric generating plants are a use subject to a conditional use permit in the A-2 Zone.

Section 1.1.5 Statement of Project Objectives

Together, proposed Projects 1 – 6 would meet the existing and future demand for electricity generated from clean, renewable technology by generating 172 MW of electrical energy from the sun. Recent legislation enacted in California recognizes the multiple benefits associated with the development of renewable energy resources. These benefits include a reduced reliance on fossil fuel, diversification of energy portfolios, reductions in greenhouse gas ("GHG") emissions, and the creation of "green" jobs within the state of California. Additionally, the Projects would assist California in meeting the newly established Renewable Energy Portfolio Standards ("RPS"). Senate Bill 14 established RPS targets for California, stating: "All retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." State government agencies have been directed to take all appropriate actions to implement this target in all regulatory proceedings, including siting, permitting, and procurement for renewable energy power plants and transmission lines.

Each of the six proposed PV Project sites, including Project 3, qualify as eligible renewable energy resources as defined by the California Public Resources Code, and would help the State meet the objective of increasing renewable energy generation. In addition, Projects 1-6 would contribute much-needed competitive energy during peak power periods to the electrical grid in California.

As another key objective, Projects 1-6 have each been sited to minimize impacts to the environment and the local community as follows:

- Using disturbed land or land that has been previously degraded from prior use;
- Using existing electrical distribution facilities, rights-of-way, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities; and
- Minimizing impacts to threatened or endangered species or their habitats, wetlands and waters of the United States, cultural resources, and sensitive land uses.

SECTION 1.2 ENVIRONMENTAL IMPACT REPORT PROCESS

In accordance with State CEQA Guidelines Section 15063, the County completed an Initial Study (June 13, 2012) for the proposed Project, and determined that an Environmental Impact Report ("EIR") was required. A Notice of Preparation ("NOP"), including the Initial Study was circulated to the Governor's Office of Planning and Research, responsible, trustee, and interested agencies, and key interest groups beginning June 20, 2012 to solicit comments on the proposed content of the Draft EIR. The NOP was circulated for the required 30-day comment period which ended July 20, 2012. A Scoping Meeting was held on July 14, 2012 at the Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, to facilitate public review and comment on the Project.

The Draft EIR includes the Initial Study, the comment letters received during the public review period in response to the NOP, and a transcript of verbal comments received during the Scoping Meeting (see Draft EIR Appendix A-1 to A-5). All NOP comments relating to the EIR were reviewed and the issues raised in those comments were addressed, to the extent feasible, in the Draft EIR.

Potentially significant environmental impacts addressed in the Draft EIR include Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems. The Draft EIR analyzed both Project-level and cumulative effects of the Project on these topics and identified a variety of mitigation measures to minimize, reduce, avoid, or compensate for the potential adverse effects of the proposed Project.

The Draft EIR also analyzed five potential alternatives to the proposed Project, including: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites; 4) Rooftop Solar Generation; and 5) Wind Energy Generation. Potential environmental impacts of each of these alternatives were discussed at the CEQA-prescribed level of detail and comparisons were made to the proposed Project.

The Initial Study determined that the Project would result in less than significant or no impact to several environmental resource areas:

1) **Mineral Resources**: The Project would not have the potential to result in the loss of availability of a known mineral resource of value to the region, including those identified in a local general plan, specific plan, or other land use plan.

2) **Employment, Population & Housing**: The Project would provide significant short-term employment for construction workers during the two year construction period. The duration of construction for the Projects would be less than two years; and construction personnel would commute to the Projects from Lancaster, the Los Angeles areas, and Kern County. However, jobs would be temporary and would be for the two year construction period. Construction workers would not establish new households and are not anticipated to permanently relocate to the area. Additionally, adequate construction

personnel presently living in Los Angeles and Kern County would fill all of the jobs that will be available. Area population, housing demands and the need for educational facilities and libraries would not be affected significantly because jobs that would be created are short term in nature; therefore, they would not be impacted by the Projects. Employment, Population, and Housing would not be impacted because the Projects do not require a significant number of personnel to operate them once they are built and producing electricity, and they do not have growth inducing impacts to the local community. Requirements for operations and maintenance are not significant and would be conducted by a few specialized contracted third-party personnel who will cover the Projects. There is no operations and maintenance building on any of the Projects 1-6.

3) **Recreation**: The Project would have no impact on recreation opportunities in the area. There are adequate recreation opportunities in the area, and the availability of these would not change as a result of the Project.

Following the Los Angeles County Department of Regional Planning ("LACDRP") internal departmental review and analysis of the proposed Project through the screencheck process, the Draft EIR was submitted to the State Clearinghouse, Governor's Office of Planning and Research, and circulated for public review period beginning January 6, 2014. The 45-day public review period required by State CEQA Guidelines Section 15087 ended on February 19, 2014.
A public hearing was held before the County's Hearing Examiner to take public testimony on the Draft EIR, at Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, held at 1:00 p.m. on February 1, 2014. Approximately 80 people attended the Hearing Examiner meeting, and 26 attendees provided oral comments on the Draft EIR. A transcript of the oral comments made at the Hearing Examiner Meeting is contained in Section 2.0 of the Final EIR.

SECTION 1.3 PROJECT FINDINGS INTRODUCTION

The Findings made by the County, pursuant to Section 21081 of CEQA, and Section 15091 of the State CEQA Guidelines, on the consideration of Project 3 of the Silverado Power West Los Angeles County Project in unincorporated Los Angeles County, California are presented below. All potentially significant impacts of the Project identified in the Final EIR are included herein, and are organized according to the resources affected.

The Findings in this document are for Project 3 of the Silverado Power West Los Angeles County Project, and are supported by information and analysis from the Final EIR and other evidence in the administrative record.

For each significant impact, a Finding has been made as to one or more of the following, in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15091:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

A narrative of supporting facts follows the appropriate Finding. For all of the impacts, one or more of the findings above have been made. The proposed Project will not result in any significant and unavoidable impacts.

SECTION 2.0 FINDINGS REGARDING POTENTIAL ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

All Final EIR mitigation measures, as set forth in the MMRP (attached as Exhibit A to these findings) have been incorporated by reference into the conditions of approval for Project 3. These mitigation measures and conditions of approval will result in a substantial mitigation of the effects of Project 3, such that the effects are not significant or have been mitigated to a level of less than significant. Specifically, the Commission has determined, based on the Final EIR, that Project 3 design features, mitigation measures, and conditions of approval will reduce Project impacts concerning Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems to a level of less than significant.

2.1 AESTHETICS

Potential Effect:

Project 3 would have significant visual impacts to the Project area if it had a substantial adverse effect on a scenic vista; would be visible from, or obstruct views from a regional riding or hiking trail; substantially damage scenic resources including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features; or create a new source of substantial light or glare which will adversely affect day or nighttime views in the area.

Finding:

Changes or alterations have been required in, or incorporated into Project 3 which mitigate or avoid the potentially significant environmental effects related to Aesthetics.

Facts Supporting the Finding:

The Project 3 site is not located along or in proximity to a state scenic highway. The proposed SGFs would not substantially damage or impact scenic resources such as trees (including Joshua

trees) or rock outcroppings, and there are no historic buildings located on the Project 3 site. **(DEIR at 4.1-105)**. The Project 3 site is located in the west/central portion of the Antelope Valley on disturbed, vacant land that consists of fallow agricultural fields with predominantly non-native vegetation. **(DEIR at 4.1-27)**. The existing site is vacant land in a rural area, and is typical of the surrounding landscape. The visual quality of the Project 3 site is low. The site itself does not have unique or rare features, or hold special significance. The topography is uniform and flat. Vegetation is uniform and consists of grasses and short shrubs. No permanent water features occur on the site, and there are no features or characteristics that set the site apart from the surrounding desert landscape. **(DEIR at 4.1-107)**.

Rural development and public infrastructure in the landscape around the site includes farms, rural residences, agricultural fields, high-voltage power lines, electrical distribution lines, and roadways. Development near the Project 3 site is mostly rural in nature. There are several rural ranch residences located directly adjacent to, or within 1 mile of the Project 3 site. Several of the ranch residences have trees planted around them that would provide some degree of vegetative screening from the SGF. The Project 3 site would not be visible from Apollo Regional Park, which is surrounded by trees. The Project 3 site is located approximately 3.2 miles northeast of the Antelope Substation, an approximately 90-acre substation located at West Avenue J and 95th Street West. The Antelope Substation is a major substation, and several high-voltage transmission lines and electric distribution lines connected to the Antelope Substation are located in the area. Existing PV solar fields are located less than five miles south of the Project 3 site. **(DEIR at 4.1-28)**.

There are no designated scenic highways in the vicinity of the Project 3 site. The City of Lancaster's MEA (City of Lancaster 2009a) identifies 90th Street West, located approximately 1.5 miles west of the site, as a potential scenic route, but this roadway has no official designation as a scenic route at this time. No existing riding or hiking trails were identified on or within 5 miles of the Project 3 site. **(DEIR at 4.1-39)**.

The proposed Project 3 SGF components would be located approximately 1.5 miles east of 90th Street West. Construction activities are not likely to be noticeable from 90th Street West due to distance. Because construction activities would be limited to daylight hours, impacts from nighttime lighting would not occur. Lighting will comply with the Los Angeles County Rural Outdoor Lighting District Ordinance, and impacts would be less than significant with implementation of Mitigation Measure A-5. Any visible dust produced during construction would be mitigated to less than significant with implementation of the fugitive dust plan (Mitigation Measure A-1). Any trash, debris, and waste would be removed from the Project 3 site during construction and the site would be screened or partially screened by fencing, as required by Mitigation Measures A-2 and A-3. **(DEIR at 4.1-95)**.

Because of the low height of the solar modules, no significant shadows would be cast upon nearby sensitive land uses. The SGF would not create a significant source of light. Light sources associated with the SGF would be minimal, and would be restricted to that required for nighttime safety and security according to County requirements and would comply with all requirements of the Los Angeles County Rural Outdoor Lighting District Ordinance. Only permitted types of lights would be used and specified height limits employed. Lighting would be installed and

directed downward and shielded to avoid light trespass. The amount of light generated by the security lights would be consistent with the provisions of the new Los Angeles County Rural Outdoor Lighting District Ordinance, and would allow less light trespass than existing sources of light produced by man-made structures adjacent to the proposed site, including residences, roadway lights, and other existing nearby facilities. Motion sensors and time limits would be employed per the lighting ordinance. Project 3 equipment and components would introduce minimal amounts of glare to the existing landscape. The PV modules are designed to absorb sunlight, and the glass modules that protect the PV surface are typically formulated to allow sunlight to pass with minimal reflection. Impacts from new sources of light or glare will be less than significant with implementation of Mitigation Measure A-5. **(DEIR at 4.1-113)**.

The completed SGF would not be dominant in motorists' views unless directly adjacent to the site. **(DEIR at 4.1-95)**. After Project 3 is completed, viewers such as nearby residents and travelers on nearby roads would still experience views of the open desert lands around the site. Even where visible, the SGF components would not be a dominant element in the landscape unless the viewer was situated directly adjacent to the facility. **(DEIR at 4.1-107)**.

A visual simulation was developed from less than 0.1 mile south of the Project 3 site boundary along 70th Street West **(DEIR Figure 4.1-34)**. From this distance, the Project 3 SGF would be visible, but would not dominate the view due to the low profile of the solar panels. From a 1.5 mile distance, the SGF would be much less noticeable, and would largely fade into the flat landscape. Adverse visual effects from construction would be temporary and would last only during the construction time period, and would be less than significant with implementation of Mitigation Measures A-1, A-2, and A-3. **(DEIR at 4.1-96)**. The overall contrast of the proposed SGF was rated as "weak" from this viewpoint. Although vegetation would be removed under the solar panels, this change would not be visible. The solar panels would form a horizontal line on the landscape that mimics the flat lines of the landscape, and therefore creates only a weak contrast from this perspective. Because of the low profile of the solar panels, views of the Tehachapi Mountains would not be blocked. The grey color and smooth texture of the solar panels already exists in the landscape, creating a weak contrast. Because the contrast introduced to the landscape from less than 0.1 mile away is considered weak, it is reasonable to assume that the solar facility would largely fade into the flat landscape and not dominate the view from viewpoints further than approximately 0.25 miles away from the Project 3 site. **(DEIR at 4.1-108)**.

Even though the SGF components are out-of-character with the directly adjacent land (which is primarily rural residential), the SGF is not out-of-character when considering the context of the surrounding landscape. Rural developments and public infrastructure are common in the landscape around the Project 3 site and include rural residences, an airport, agricultural fields, residential developments, and electrical infrastructure such as PV solar fields, electric distribution lines and high-voltage transmission lines. The Project 3 site is located less than three miles from other PV solar fields similar in appearance and size. Because other structures are common in the vicinity of the site and in the larger area, and because the site itself is not characterized by high visual quality, the visual impact of the SGF on the existing visual character of the Project 3 site and its surroundings would be less than significant. As shown by the simulation in DEIR Figure 4.1-34, the SGF would not dominate the landscape from most

viewpoints unless the viewer is located directly adjacent to the proposed SGF. Because of the low profile of the solar panels, the SGF would largely fade into the flat landscape. **(DEIR at 4.1-108)**.

After construction, it is highly unlikely that the Project 3 SGF would be discernible from Little Buttes, Quartz Hill, the Foothills Area, or the California Poppy Reserve, all of which are located over five miles from the site. Even from a superior viewing position at these locations, a viewer is not likely to be able to distinguish the SGF from over 5 miles away from the site. If it was visible, at such a distance the constructed SGF would not appear dissimilar to an agricultural field in shape and size. Project 3 would be dominant in the view from the Class III bikeway located along 70th Street West and the Class II bike lane along West Avenue G. Accordingly, a 10-foot vegetative buffer is proposed along 70th Street West, West Avenue G, and the north and east-facing Project site boundaries closest to West Avenue G, to mitigate the views from the bikeway (Mitigation Measure A-4). **(DEIR at 4.1-96)**. Overall, Project 3 would have a less than significant aesthetic impact with mitigation.

Project 3's visual impacts are further reduced with the adoption of the following feasible mitigation measures:

A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.

A-2 The Project site shall be maintained free of debris, trash, and waste during construction.

A-3 The Project site shall be visually screened or partially screened during construction by fencing.

A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.

A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on essential infrastructure rather than on separate light poles except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.

2.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Project 3 would have a significant impact on Agriculture and Forestry Resources if it would: convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-

agricultural use; conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract; conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220 (g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g)); result in the loss of forest land or conversion of forest land to non-forest use; or 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.

Finding:

Project 3 will not have a significant effect on the environment related to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

As currently mapped under 2010 data from the Department of Conservation ("DOC") Farmland Monitoring and Mapping Program ("FMMP"), the Project 3 site contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. **(DEIR at 4.2-5)**. Project 3 also contains no forest land, timberland, or timberland zoned Timberland Production. **(DEIR at 4.2-8)**.

Project 3 is located within the Los Angeles County Zoning Ordinance designation A-2, Heavy Agriculture. According to LACDRP, a solar electricity energy generating facility is allowed in Zone A-2 with the issuance of a CUP (Chapter 22.24.150[A]). Furthermore, Project 3 will not preclude future agricultural uses. Project 3 and its associated gen-tie lines are located within a LACDRP Agricultural Opportunity Area ("AOA"). The Antelope Valley Areawide General Plan Policy states that these areas should be protected from incompatible uses. The Antelope Valley Area Plan states that applications for non-agricultural uses in the AOA areas will be evaluated for their impact upon adjacent agricultural operations.

Project 3 would involve conversion of land that was formerly used for agricultural production to renewable electricity energy production. Construction and operation of Project 3 would not involve other restrictions, obstructions, or resources that could result in conversion of Farmland to non-agricultural use. The Project 3 site has not been irrigated since 1972. The Project would produce power in a passive manner and would result in minimal air pollutant emissions, traffic, and noise, and would not affect adjacent agricultural operations.

Project 3 and its associated gen-tie lines are located in an AOA, but are not currently utilized for agricultural purposes. Additionally, the proposed properties are not designated under a Williamson Act contract. As a result, construction and operation of Project 3 would not conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, impacts to existing agricultural use zoning, designated AOAs, and Williamson Act contracts will be less than significant. **(DEIR at 4.2-7)**.

Project 3 and its associated gen-tie lines will temporarily preclude future agricultural use at the Project 3 site. Following the termination of power generating activities at the Project 3 site, all facilities and equipment would be removed and the land would be restored as near to its pre-development condition as possible in the event a new similar land use is not contemplated at that time by then current owners. A decommissioning and reclamation plan detailing land restoration activities will be provided, as required by Los Angeles County as part of the CUP. Additionally, the Applicant will be required to provide a decommissioning bond, or other suitable financial guarantee acceptable to the County, equal to the amount of money estimated to be required to decommission the Project, including any additional environmental review which might become necessary, and restore the land to as near its pre-development condition as possible. Project 3 will not impact any land use outside the development site's limits. Impacts regarding the conversion of Farmland to non-agricultural use will be less than significant. **(DEIR at 4.2-9)**.

2.3 AIR QUALITY

Potential Effect:

Project 3 would have a significant impact on Air Quality if it would: conflict with or obstruct implementation of the applicable air quality plan; violate any air quality standard or contribute substantially to an existing or projected air quality violation; cumulatively produce a considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors); expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people.

Finding:

Changes or alterations have been required in, or incorporated into Project 3 which mitigate or avoid the potentially significant environmental effects related to Air Quality.

Facts Supporting the Finding:

Pursuant to the Clean Air Act ("CAA"), the Antelope Valley Air Quality Management District ("AVAQMD") is required to reduce project emissions of criteria pollutants for which the Mojave Desert Air Basin ("MDAB") is in non-attainment. Project 3 is located within a non-attainment area, which means that certain Project-related activities could potentially be subject to emission control strategies contained within the AVAQMD Federal 8-Hour Ozone Attainment Plan. Construction would involve activities that can result in emissions of particulate matter ("PM"). However, construction of PV panels and the generation-tie line would not require intense earthmoving activities, only the low-impact method of mowing the surface. Compliance with applicable rules, ordinances, plans, and policies would minimize PM emissions during construction. Project 3 construction emissions would not exceed emission thresholds, and would be less than significant. **(DEIR at 4.3-25)**. Since construction of Projects 1-6 would occur consecutively over the course of two years, construction of the six Projects could overlap, which may cause a peak in the Projects' daily construction emissions. However, maximum daily and

annual construction emissions would not exceed the appropriate AVAQMD significant thresholds for all pollutants, even with the potential overlap in construction schedules. **(DEIR at 4.3-37)**.

During operation of Project 3, the Project site would undergo maintenance and security activities no more than 10 times annually (as needed), and would not create a daily increase in population or visitors. The assumption of 10 annual trips includes truck trips associated with panel washing. Project 3 would comply with AVAQMD rules and Los Angeles County ordinances, and is designed to be consistent with applicable county policies and the Attainment Plan. Therefore, Project 3 would not conflict with implementing the applicable air quality plan. **(DEIR at 4.3-25)**. Project 3 emissions estimates are based on compliance with AVAQMD Rule 403 requirements for fugitive dust suppression, watering exposed surfaces two times daily. The short-term emissions during Project 3 construction would not exceed AVAQMD significance thresholds. As such, Project 3 would not exceed thresholds, result in violating air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-28)**. Likewise, even when all six Projects operate concurrently, the operation of all six Projects would not exceed annual thresholds, violate air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-42)**.

Decommissioning of Project 3 (and each of the six Project sites) would require removal of the PV modules, PV module mounting system, electrical boxes, electrical inverters and transformers, electrical AC collection system, switchgear, data monitoring equipment, chain link perimeter security fencing, concrete ballasts, underground vaults, other concrete pads, and transporting all components off site. Air quality emissions from decommissioning would be generated from the pieces of equipment used and any fugitive dust from site preparation activities. Equipment used for decommissioning and removal of concrete ballasts, underground vaults, concrete pads, etc. generally would be similar to that used for construction, except that no mowing or clearing would be required.

Since decommissioning does not involve mowing or clearing activities, the level of fugitive dust emissions would be less than emissions created during construction. After removal of equipment and facilities, the site would need to be re-vegetated. Decommissioning would occur after at least 25 years of operation; therefore, equipment engine technology is likely to be more advanced, and fuels to be cleaner. Criteria pollutant emissions during decommissioning would be equal to or, more likely, less than those estimated from construction for Project 3, and will also be less than significant with mitigation. **(DEIR at 4.3-42)**. Similar to criteria pollutant emissions, hazardous air pollutant emissions during decommissioning would be less than during construction due to advanced equipment engine technology and cleaner fuel and would therefore be less than significant. Exhaust from off-road equipment and on-road vehicles used during decommissioning and construction truck trips would not be expected to create objectionable odors, and would therefore be less than significant. **(DEIR at 4.3-42).**

The MDAB is currently nonattainment for federal and state ozone standards and nonattainment for state PM_{10} standards, which may cause emissions from Project 3 to contribute to an existing or projected air quality standard exceedance. Implementing any of the six Projects (including Project 3) would increase short-term emissions related to construction, and a negligible increase in long-term emissions related to SGF operation and maintenance. Construction for all six sites is

expected to be staggered, and may extend over two years. Nevertheless, due to the nature and size of each site, simultaneous construction would not result in emissions of ozone precursors or PM_{10} that exceed daily thresholds. As shown in DEIR Table 4.3-12, "Mitigated Peak Daily Concurrent Construction Emissions", and DEIR Table 4.3-13, "Peak Annual Concurrent Construction Emissions", the impacts would be less than significant prior to mitigation. Implementing control strategies to reduce PM_{10} further minimizes air emissions. As such, construction of Project 3 would not 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). **(DEIR at 4.3-43)**.

During the operation phase, Project 3 will have no major emissions sources. Facility operating equipment that emits regulated air pollutants or requires AVAQMD permits is not planned at Project 3 or any of the six Project sites. As shown in DEIR Table 4.3-20, "Peak Annual Concurrent Operation Emissions", the impacts would be less than significant. As such, operation of Project 3 would not 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). **(DEIR at 4.3-43)**.

Project 3 was analyzed for air impacts to nearby sensitive receptors; however, sensitive receptors would only be exposed during construction activities. PM_{10} and $PM_{2.5}$ concentrations are expected to occur primarily from fugitive dust emissions during mowing, excavation activities and, to a lesser degree, during PV installation and paving. Rule 401 requires that airborne particles remain on the site from which they originate under normal wind conditions. Proper mitigation techniques must be implemented to ensure that fugitive dust is contained. Emissions are not expected to expose even the closest sensitive receptors to substantial pollutant concentrations, and, due to the distance between Project sites, simultaneous construction at two sites would not significantly impact the same sensitive receptors. **(DEIR at 4.3-44)**.

Operational emissions from Project 3 would not impact local air pollutant levels at nearby receptors. As mentioned above, sensitive receptors would only be exposed, if at all, during construction activities. The primary source of Project emissions during operation is the vehicles used by facility maintenance staff traveling to and from the site. Maintenance is expected to occur no more than 10 times per year. Overall, Project 3 would not result in an increase in VMT over the course of one summer or winter day. Thus, Project 3 would not result in new long-term stationary sources, nor would they result in a significant number of net new vehicular trips. Carbon monoxide (CO) impacts from operation of Project 3 to sensitive receptors would be less than significant. **(DEIR at 4.3-44)**.

Short-term concentration levels during the construction phase will not expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than the EPA screening levels. **(DEIR at 4.3-45)**. Due to continuous construction of each of the six Project sites over the course of two years (which may overlap), long-term cancer impacts from construction activities to the nearest sensitive receptors were evaluated, and found that even with the cumulative contribution of health risk impacts from all six proposed Projects, the cumulative cancer risk to the identified sensitive receptors is still below the cancer risk exposure level.

(DEIR at 4.3-46). Short-term concentration levels during Project 3 site construction will neither expose sensitive receptors to substantial pollutant concentrations, nor exceed the cancer risk screening levels. **(DEIR at 4.3-47)**.

Project 3's Air Quality impacts are further reduced with the adoption of the following feasible mitigation measures:

AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction, or, in locations where water alone does not suffice to suppress dust adequately apply nontoxic chemical soil stabilizers, according to manufacturers' specifications. Temporarily stockpiled soil shall be secured with tarps or plastic sheeting or sprayed with non-toxic soil stabilizers.

AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).

AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.

AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.

AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.

AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.

AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.

AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.

AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.

2.4 BIOLOGICAL RESOURCES

Potential Effect:

Project 3 would have a significant impact on biological resources if it would: have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game Wildlife ("CDFW") or U.S. Fish and Wildlife Service ("USFWS"); have a substantial adverse effect on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, and regulations of CDFW or USFWS; have a substantial adverse effect on federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means; 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; 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) otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.); 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, Section 22.56.215), and the Sensitive Environmental Resource Areas ("SERAs"), (L.A. County Code, Title 22, Section 22.44, Part 6); or conflict with the provisions of an adopted state, regional, or local habitat conservation plan.

Finding:

Changes or alterations have been required in, or incorporated into Project 3 which mitigate or avoid the potentially significant environmental effects related to Biological Resources.

Facts Supporting the Finding:

Project 3 does not contain riparian habitat, coastal sage scrub, oak woodlands, wetlands, Joshua trees, or yucca trees on the site, and does not contain non-jurisdictional or state regulated waters. **(DEIR at 4.4-59)**. There are also no wetlands, vernal pools, or riparian habitat identified on the Project 3 site. No federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act features, were identified on the Project 3 site. The site slopes from an elevation of 2,394 feet on the north side to an elevation of 2,379, dropping only 15 feet across the site. Thus, drainages do not occur on the site. There are some small and limited depressions or swales on the site, but they do not support riparian or wetland vegetation of any kind. The habitat in the swales is not substantially different than the surrounding land. Based on site observations, the man-made irrigation ditches along the north and east boundaries and through the middle of Project 3 do not support riparian vegetation or riparian habitats, and impacts would be less than significant. **(DEIR at 4.4-60)**.

Project 3 does not contain oak trees, juniper trees, Joshua trees, or other unique native trees. **(DEIR at 4.4-62)**. Project 3 and the immediate vicinity do not contain or conflict with any Significant Ecological Areas ("SEAs"), Wildflower Reserve Areas, or Sensitive Environmental Resource Areas ("SERAs"). The closest SEAs to Project 3 are Fairmont and Antelope Buttes which are located 5.4 miles west, and Rosamond Lake which is 9 miles east. Therefore, Project 3 would not conflict with any local policies or ordinances protecting biological resources. **(DEIR at 4.4-63)**. There are no adopted state, regional, or local habitat conservation plans in effect within the boundaries of the Project 3 site. **(DEIR at 4.4-64)**.

Project 3 has low potential has low potential for alkali mariposa lily, merlin, northern California legless lizard, loggerhead shrike, mountain plover, and Swainson's hawk to occur onsite. There is moderate potential for American badger. There is low potential for burrowing owl to occur on site, as no individuals or potential burrows were observed during 2013 targeted surveys. There is high potential for ferruginous hawk to occur onsite. Developing the site as a solar generating facility would remove habitat for these species, and the 135.6 acres of land for Project 3 would be mostly unavailable as wildlife habitat during the life of Project 3, which would result in a significant impact. However, mitigation measures will reduce this impact to less than significant. **(DEIR at 4.4-57; 4.4-58)**.

Project 3 is located within an area of topographically homogeneous open space, and there are no local constraints to movement of resident or migratory wildlife that development of Project 3 would further aggravate. There are no known wildlife migration pathways that would be impacted by Project 3. **(DEIR 4.4-61)**.

Wildlife nursery areas on the Project 3 site may include nesting sites of native bird species, which are protected by the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) and the California Fish and Game Code Section 3503. Burrowing owls may have suitable burrows on the Project 3 site, and protections for bird nesting and burrowing owls are provided in Mitigation Measures B-1, B-2, B-3 and B-4. The intent of acquiring mitigation lands would be to select available parcels that would replace lost breeding/foraging/winter foraging habitat and enhance the overall quality of habitat for a variety of species including migratory bird species. The potential to acquire parcels that would also maintain or enhance wildlife migration corridors in the area would also be considered. Planting of shrubs and native vegetation on the Project 3 site would improve the opportunities for shrub-nesting bird species on the Project 3 site when it is complete. **(DEIR 4.4-61)**.

Project 3 impacts to Biological Resources are further reduced with the adoption of the following feasible mitigation measures:

B-1: Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to LACDRP and CDFW at their request.

B-2: Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below.

Pre-survey information gathering will include review of all available agency nest data and mapping.

- A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted.

- Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird

nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds.

- A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012).

  If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals.

  Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand-excavated and collapsed under the supervision of the avian biologist.

  Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals.

- Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.

B-3: During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or

construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW during construction activities, as frequently as required by LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.

B-4: Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily.

Swainson's hawk: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity.

The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats:

Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows:

- A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed SEA.

- A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat;

- A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat.

Burrowing Owl: Mitigation for any occupied burrowing owl burrows found during preconstruction surveys will include a comprehensive tiered approach:

- Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;

- Disturbance avoidance of occupied burrows during nesting period February 1 – August 31;

- Impact avoidance of occupied burrows;

- Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW).

- Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback).

- Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project.

Alkali Mariposa Lily: Alkali mariposa lily will be avoided to the greatest extent possible. If preconstruction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable.

For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.

B-5: Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria:

Habitat Management Land Selection Criteria: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired.

Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred.

Habitat Management Lands Acquisition: Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW.

The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s) acquisition in an amount acceptable to the LACDRP and CDFW.

Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the Applicant shall provide a proposed date of purchase which coincides with construction of the facility.

B-6: Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.

B-7: Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads) as follows:

Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock is not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.

2.5 CULTURAL RESOURCES AND PALEONTOLOGICAL RESOURCES

Potential Effect:

Project 3 would have a significant effect on Cultural Resources or Paleontological Resources if it would: cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5; cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of formal cemeteries.

Finding:

Changes or alterations have been required in, or incorporated into Project 3 which mitigate or avoid the potentially significant environmental effects related to Cultural Resources and Paleontological Resources.

Facts Supporting the Finding:

No historical resources were detected within Project 3 during the transect survey conducted for the EIR. Historic-era structures appear to have once been on the Project 3 site from 1954 to 1974, but all structures were demolished sometime between 1974 and 2005, based on a review of historic and modern aerial photos. Some features and remnants of the demolished farm complex remain dispersed on the parcel, and were recorded on a Department of Parks and Recreation 523 form (CA-LAN-4351H). The integrity of the site has been compromised by the demolition of the structures. Site CA-LAN-4351H lacks any physical integrity and the recordation of surface artifacts has likely exhausted the date potential for the site. Site CA-LAN-4351H is recommended as not eligible for listing on the California Register of Historic Resources ("CRHR") or National Register of Historic Places ("NRHP"), and no further management consideration of the resource is necessary. Therefore, construction, operation and maintenance of Project 3 will not cause any change in the significance of historical resources. **(DEIR at 4.5-24)**.

There is a possibility that historical and/or archaeological materials would be uncovered during necessary subsurface excavations for the construction of the proposed Project 3. Although the likelihood of encountering archaeological resources on the site is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure CUL-1, which describes procedures to be followed in the event that cultural resources are discovered, is

required. CUL-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-24)**.

No paleontological resources were detected during the transect survey of Project 3. Based on the paleontological assessment conducted for the EIR, it is unlikely that any intact significant paleontological resources are or will be located on the Project 3 site. Therefore, Project 3 would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature, or contain rock formations indicating potential paleontological resources. If Project excavations reach 10 feet or more below current grade and reveal that older Quaternary deposits and/or the later Miocene deposits are exposed, there will be a higher potential for encountering significant vertebrate fossil remains. Deep cuts should be inspected by a qualified paleontologist in an attempt to identify the more sensitive older alluvial strata. **(DEIR at 4.5-30)**.

There is a possibility that paleontological materials would be uncovered if excavations for the construction of the proposed Project 3 reach a depth of 10 feet or more below current grade. Although the likelihood of encountering paleontological resources within the Project 3 area is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure PALEO-1, the development of a Paleontological Resources Mitigation and Monitoring Plan ("PRMMP") by a qualified paleontologist is required if construction excavation depth is below 10 feet or more below current grade. PALEO-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-30)**. Operation of Project 3 would not require any excavations to the depth of potential paleontological resources. There, operation of Project 3 would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources. **(DEIR at 4.5-30)**.

There is no indication as a result of this study that human remains are present within the boundaries of Project 3. The records search and the field survey indicate no evidence of human remains on or near the sites. Project-related earth disturbance, however, has the potential to unearth previously undiscovered remains, resulting in a potentially significant impact. However, implementation of Mitigation Measure CUL-2 that describes procedures to be followed in the event that human remains are discovered would ensure that impacts are reduced to a less than significant level. **(DEIR at 4.5-32)**.

Project 3 impacts related to Cultural Resources are further reduced with the adoption of the following feasible mitigation measures:

CUL-1: In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist and Native American Monitor shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of, but

are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites.

If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.

CUL-2: In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.

PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. The paleontologist shall develop and execute a PRMMP and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find to allow evaluation of the find and determination of appropriate treatment according to the Program.

2.6 GEOLOGY AND SOILS

Potential Effect:

Project 3 would have a significant effect on Geology and Soils if it would: expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic related ground failure, including liquefaction and lateral spreading; expose people or structures to potential substantial adverse effects, including

the risk of loss, injury, or death involving landslides; result in substantial soil erosion or the loss of topsoil; 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; be located on expansive soil; have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater; or conflict with the Hillside Management Area Ordinance or hillside design standards in the County General Plan Conservation and Open Space Element.

Finding:

Project 3 will not have a significant effect on the environment related to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

Project 3 and the Project 3 gen-tie line are not located in an active or potentially active fault zone according to the California Geological Survey ("CGS") Seismic Hazard Zone Maps (CGS 2008) and Alquist-Priolo Earthquake Fault Zoning Map (CGS 2010). The closest fault zones are the San Andreas Fault Zone, which is located approximately 7.25 miles to the south southwest of the Project 3 site, and the Garlock Fault Zone, which is located approximately 20 miles northwest of the Project 3 site. Based on research and available information, Project 3 is susceptible to seismicity, but is not susceptible to fault rupture; therefore, impacts involving the rupture of a known earthquake fault will be less than significant. **(DEIR at 4.6-14)**.

The United States Geological Survey ("USGS") National Seismic Hazard Map (2008) indicates that Project 3 and the Project 3 gen-tie line are located in an area mapped from 40 to 60 percent gravity for peak horizontal acceleration with a 10 percent probability of exceedance in the next 50 years. According to the USGS, and dependent on structural design, 10 percent gravity is the lower threshold at which damages to structures are likely to occur. Based on geologic and soil conditions at the site, the USGS Ground Motion Parameter Calculator indicates that Project 3 facilities will need to be designed to sustain spectral accelerations of approximately 0.52 to 1.5 percent gravity (USGS 2012). **(DEIR at 4.6-16)**.

Project 3 has the potential to be subjected to ground motion during construction. However, because of the temporary nature of the construction period relative to the frequency of occurrence of significant seismic events, the potential for Project 3 construction to expose people or structures to substantially adverse effects due to seismicity and ground motion will be less than significant. **(DEIR at 4.6-16)**. During operation of the facility, all Project 3 structures and operational facilities will be designed in accordance with the California Building Code ("CBC") and applicable industry standards. The design and construction of Project 3 would comply with all applicable building codes and standards established by regulatory agencies, including the Los Angeles County Department of Public Works and the CBC. Therefore, Project 3 impacts related to seismic shaking and strong ground motion hazards would be less than significant. **(DEIR at 4.6-16)**.

The CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 3 or the Project 3 gen-tie line as being located in zones with the potential for liquefaction or ground failure. Additionally, Project 3 is located on poorly sorted coarse grained materials with groundwater typically greater than 100 feet below ground surface (bgs) (USGS 2008). Based on available geologic information, the potential susceptibility of ground failure is less than significant for Project 3 construction and operation. **(DEIR at 4.6-19)**.

The location of Project 3 and its associated gen-tie lines contain generally low slopes of less than 1 percent gradient. As indicated in the Project description, development of the solar facility would not result in significant changes to existing site grades, and would not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 3 as being located in zones susceptible to landslides or slope failure. Therefore, the potential susceptibility for slope failure and landslides during construction and operation is less than significant for Project 3. **(DEIR at 4.6-20)**.

The soil series at the location of Project 3 and the Project 3 gen-tie line was indicated to be Hesperia fine sandy loam. This soil series have an erosion factor of 0.28 to 0.32, indicating a low to medium susceptibility to water erosion, and a wind erodibility group of 3, indicating a low to medium susceptibility to wind erosion. Implementation of appropriate erosion and sediment control BMPs will be implemented during construction and operation of Project 3, as outlined in Draft EIR Hydrology Section 4.9 and Air Quality Section 4.3, and will mitigate potential impacts to less than significant levels. **(DEIR at 4.6-21)**.

Based on the information in the Geotechnical Critical Issues Analyses and Custom Soil Resource Reports prepared by Tetra Tech, the location of Project 3 and the Project 3 gen-tie line contains generally low gradient slopes. Development of solar facilities will not result in significant changes to existing site grades, and will not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) indicates that Project 3 is not susceptible to landslide or liquefaction hazards. **(DEIR at 4.6-24)**.

Although subsidence has occurred throughout the Antelope Valley, the majority of subsidence has been concentrated near the City of Lancaster and was caused by excessive groundwater pumping and decreased water levels. Subsidence in the vicinity of Project 3 was between 2 to 3 feet from 1930 to 1992, and there has been no surficial evidence such as fissures and differential settling observed near the Project 3 location. Based on historic rates of subsidence and a relatively stabilizing water level due to reduced pumping and proposed aquifer management, future subsidence is expected to be minimal. In the event that minor future subsidence does occur, the potential impact to the proposed structural design (post mounted racking systems and relatively small foundations for electrical equipment) would be minimal. Based on geologic data and the proposed construction and operation as described in the Project description, Project 3 impacts to on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse will be less than significant. **(DEIR at 4.6-24)**.

The soil series at the location of Project 3 and the Project 3 gen-tie line was indicated to be Hesperia fine sandy loam. This soil series is rated for a low shrink/swell potential, and the potential for expansive soils to affect Project 3 is less than significant. **(DEIR at 4.6-25)**. Project

3 does not propose the use of any sanitary facilities that will require septic tanks or sanitary wastewater disposal during either construction or operation. Therefore, no impact will occur. Project 3 is located on the floor of the Antelope Valley where the terrain is nearly flat. Project 3 is not located in the hillside area, and is not affected by Hillside Management Areas. **(DEIR at 4.6-26)**.

2.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Project 3 would have a significant impact related to Greenhouse Gas Emissions and Climate Change if it would: generate direct or indirect GHG emissions that may have a significant impact on the environment, based on any applicable threshold of significance; or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Finding:

Changes or alterations have been required in, or incorporated into Project 3 which mitigate or avoid the potentially significant environmental effects related to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

Project 3's short-term GHG emissions during the construction phase (maximum daily emissions of 5,335 pounds per day) would not exceed the AVAQMD significance threshold for maximum daily emissions (548,000 pounds per day). As such, Project 3 would not exceed thresholds or result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-21)**.

Because construction of the six Project sites may overlap, concurrent construction emissions of Projects 1-6 were analyzed by emissions per year and thus compared to the annual GHG threshold of 100,000 metric tons of CO_{2e} per year, for long-term emissions. The unmitigated peak annual construction levels for all six Project sites are expected to result in annual GHG emissions below the most stringent annual threshold proposed by the AVAQMD (100,000 tons per year). As such, the Project will not exceed thresholds or result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-23)**.

During operations, Project 3 facility operation would be limited to general maintenance, panel washing, and security. The primary source of emissions during operations is mainly the vehicles used by facility maintenance staff to and from the site. It is anticipated that operations and maintenance would utilize one water truck for panel washing and one light duty truck twice per year. Although Project 3 is scheduled for bi-annual panel washing, a maximum of ten trips were assumed for each Project (four round trips plus one additional round trip to be conservative). The operation emissions provided for each Project are considered the Project's baseline emissions, since it does not include any solar energy reductions. Because operations-related GHG emissions are considered long term, the AVAQMD daily significance threshold of 100,000

metric tons of CO_{2e} per year was used to analyze impacts during operations. The total annual operational emissions for Project 3 are 5.53 tons of CO_{2e} per year, which is well below the AVAQMD threshold of 100,000 tons per year. **(DEIR at 4.7-25)**. Likewise, concurrent operation of all six Projects is estimated to generate approximately 31 metric tons of CO_{2e} annually, which is well below the AVAQMD threshold. **(DEIR at 4.7-27)**.

Construction-related emissions from Project 3 would be temporary and finite in nature, below the applicable thresholds, and are consistent with the AB 32 Scoping Plan. Accordingly, Project 3's construction-related GHG emissions would not be a cumulatively considerable contribution to climate change. Project 3's operational GHG emissions would be negligible and would not comprise a cumulatively considerable contribution to climate change and, therefore, would be less than significant. **(DEIR at 4.7-28).**

Furthermore, with implementation of Project 3, there would be an added environmental benefit of displacing GHG emissions in the region. The solar energy generation would offset emissions from electricity usage, which would otherwise be produced by fossil-fueled power generation facilities using petroleum, natural gas, or coal combustion. Project 3 would result in a temporary increase in GHG emissions which is below the most stringent proposed threshold; employ active solar technologies supportive of the state's goals to reduce GHG emissions; and is consistent with the County of Los Angeles's goals. **(DEIR at 4.7-29)**.

Project 3 would therefore be in accordance with the state's need for the construction of renewable energy power plants to meet the state's GHG reduction objectives including:

- California's RPS that requires California's investor-owned electric utilities to obtain 20 percent of the electricity that they supply by 2010 from renewable sources;

- Executive Order S-14-08, which established the RPS targets for California that "all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020";

- Executive Order S-03-05 on climate change to advance renewable energy and other solutions to reduce California's GHG emissions; and

- The California Global Warming Solutions Act of 2006 (AB 32) that established a comprehensive program of regulatory and market mechanisms to reduce GHG emissions to 1990 levels by the year 2020.

Project 3 includes various project design features and objectives that address global climate change and reduce GHG emissions, as do each of the Projects 1-6. Project design features include aspects of the Project that either must be incorporated as part of the conditions of approval, or that the Applicant has committed to include to reduce GHG impacts associated with the Project. The Projects would be designed to reduce emissions through specific goals set. The expected Project features would directly or indirectly result in lower emissions of GHGs. The Project design features that address global climate change impacts include the following:

- Vegetation to sequester GHGs
    - Preserve natural areas by mowing, which maintains the organic material in the soil
    - Preserve open space by limiting constructing on portions of Project site
    - Plant trees and shrubs along the edges as buffers to adjacent receptors

- Construction limitations to minimize GHG emissions
    - Limit construction equipment idling beyond regulation requirements
    - Limit number of simultaneous construction projects by phasing

As such, Project 3 would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions. **(DEIR at 4.7-30)**. In addition to the Project design features listed above, the Project's impacts related to Greenhouse Gas Emissions and Climate Change are further reduced with the adoption of the following feasible mitigation measures:

GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

GHG-3 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.

GHG-4 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

2.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Project 3 would have a significant effect on Hazards and Hazardous Materials if it would: create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials; 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; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses; be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment; for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; for a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area; impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; expose people or structures to a significant risk of loss, injury, or death involving fires, due to location within a Very High Fire Hazard Severity Zones (Zone 4); expose people or structures to a significant risk of loss, injury or death involving fires, due to location within a high fire hazard area with inadequate access; expose people or structures to a significant risk of loss, injury or death involving fires due to location within an area with inadequate water and pressure to meet fire flow standards; expose people or structures to a significant risk of loss, injury or death involving fires due to location within proximity to land uses that have the potential for dangerous fire hazard; or constitute a potentially dangerous fire hazard.

Finding:

Changes or alterations have been required in, or incorporated into Project 3 which mitigate or avoid the potentially significant environmental effects related to Hazards and Hazardous Materials.

Facts Supporting the Finding:

Project 3 would not require extensive or ongoing use of hazardous materials. Hazardous materials used during the construction of Project 3 would be typical of most construction projects of this type. Hazardous materials used during construction activities may include gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, and other supplies. All hazardous materials would be transported, stored, and properly disposed of in compliance with all applicable laws and regulations. The accidental release of hazardous materials or wastes during construction activities is possible. The accidental release of hazardous materials or wastes would be promptly contained and abated in accordance with all applicable laws and regulatory requirements, and therefore is not expected to result in a significant impact. **(DEIR at 4.8-11)**. During operation of Project 3, limited quantities of hazardous materials would be stored on-site. These materials would include fire suppressant and transformer insulating oil (mineral oil). The mineral oil would be contained within Project 3 electrical transformers and switches. Project 3 would develop and implement a hazardous materials and hazardous waste management program for both construction and operational phases. The program would include the following, as required by applicable regulations. **(DEIR at 4.8-11)**.

- **Hazardous Materials and Hazardous Waste Handling:** The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 3. This program would be implemented prior to the start

of construction activities. The program would prescribe proper hazardous material use, storage, and disposal requirements, as well as hazardous waste management procedures. The program would identify specific types of hazardous materials to be used during Project 3 construction and operation, and specific types of wastes that will be generated. All personnel would be provided with Project-specific training. These programs would be developed to ensure that all hazardous materials and hazardous wastes would be handled and disposed of in a safe and environmentally sound manner consistent with all applicable laws and regulations. Employees and contractor personnel handling wastes would receive hazardous materials training and be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and treatment, storage, and disposal facility ("TSDF") training in accordance with Occupational Safety and Health Administration ("OSHA") Hazard Communication Standard and 22 CCR. Prior to the start of construction of Project 3, a Hazardous Materials Business Plan ("HMBP") will be prepared and submitted in accordance with Chapter 6.95 of the California Health and Safety Code and Title 22 CCR, as required by the Certified Unified Program Agency.

- **Construction Stormwater Pollution Prevention Plan:** The construction contractor would prepare a site-specific SWPPP for review and approval by the appropriate regulatory agencies and implement it prior to the start of demolition or construction activities at Project 3. The SWPPP would utilize BMPs to address the storage and handling of hazardous materials and sediment runoff during demolition and construction activities.

- **Transport of Hazardous Materials and Hazardous Wastes:** Hazardous materials transported by truck would include fuel (diesel fuel and gasoline) and oils and lubricants for equipment. Transportation of hazardous waste may include hazardous building materials and small amounts of construction waste such as waste oils, solvents, or cleaners. The construction contractor would prepare written procedures for the transport of hazardous materials and hazardous waste in accordance with the California Vehicle Code, California Highway Patrol Regulations (CCR Title 13); Department of Transportation Regulations, Title 49, CFR; and U.S. Environmental Protection Agency Regulations, Title 40 CFR, and CCR 22 regulations prior to the start of construction activities at Project 3.

- **Fueling and Maintenance of Construction Equipment:** The construction contractor would prepare written procedures for the fueling and maintenance of construction equipment prior to the start of construction activities at Project 3. Vehicles and equipment would be refueled off-site or on-site by refueling trucks. If on-site refueling or maintenance activities are required, refueling and maintenance procedures would include implementation of BMPs to ensure that chemicals do not come in contact with the ground. Equipment will be inspected daily for potential leakage or failures.

- **Emergency Release Response Procedures:** The construction contractor would prepare an Emergency Release Response Plan ("ERRP") detailing the response to releases of hazardous materials. The ERRP would be prepared prior to the start of construction activities at Project 3. The ERRP would prescribe hazardous materials handling

procedures for reducing the potential for a release during construction activities, and would include an emergency response program to ensure the rapid and safe cleanup of any accidental spills. All hazardous material spills of threatened release would be immediately reported. All construction and operations personnel would be aware of federal, state, and local emergency response reporting guidelines. Implementation of the aforementioned hazardous materials and hazardous waste management programs would reduce the potential impacts associated with the handling, transport, and use of hazardous materials during both construction and operation of Project 3 to less than significant levels. **(DEIR at 4.8-12)**.

If lead based paint is found during construction of Project 3, the Applicant would comply with County requirements and provide a copy of the qualifications/license of the lead based paint abatement contractor that will perform the abatement or removal of lead based paint to the Department of Public Works Building and Safety Division and the County of Los Angeles Fire Department Health and Hazardous Materials Division. If required by the County, the Applicant would prepare and submit a Hazardous Building Materials Demolition Assessment and Management Plan to the Department of Public Works and Fire Department for review and approval to ensure compliance with all applicable federal, State, and local laws, and regulations. OSHA regulations are in place to assure that these materials are safely removed prior to or during demolition and renovation activities. In compliance with regulations requiring removals by firms and individuals licensed to do such work pursuant to applicable regulations the Project's potential impacts regarding lead exposure would be less than significant. Implementation of the aforementioned ERRP would reduce the potential impacts associated with upset and accidental release conditions at Project 3 (and gen-tie lines) to less than significant levels. **(DEIR at 4.8-13)**.

Project 3 would convert sunlight directly into electrical energy without the creation of hazardous emissions, and no impact to sensitive land uses would occur as a result of hazardous emissions. The primary emissions created by Project 3 (and gen-tie lines) would be air emissions from vehicle and equipment exhaust generated during construction activities. Potential impacts due to air emissions created during construction and maintenance activities at Project 3 would be less than significant, as discussed in Section 4.3 of the DEIR. **(DEIR at 4.8-13)**.

Based on the Environmental Data Review ("EDR"), the location of Project 3 and the Project 3 gen-tie line is not located at a known site that is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5; however, RECs indicated to be in the vicinity of Project 3 include an underground storage tank ("UST"). No known releases have occurred at Project 3 or adjacent to Project 3. Based on the information compiled in the EDR, Project 3 would have no impact due to site hazards to the public and environment during construction or operations. **(DEIR at 4.8-14)**.

Based upon a review of the *General William J. Fox Airfield Land Use Compatibility Plan*, Project 3 and the Project 3 gen-tie line are located within the General William J. Fox Airfield land use plan. Project 3 is located in General William J. Fox Airfield's Zone C: Extended Approach/Departure Zone. Generally, there is no concern with regard to any object up to 50 feet tall within Zone C. The Los Angeles County Airport Land Use Commission ("ALUC") has

stated that review of Project 3 is not required. Therefore, Project 3 impacts to public airports or public use airports would be less than significant. **(DEIR at 4.8-15)**. Project 3 is not otherwise located within the vicinity of a private airstrip. **(DEIR at 4.8-16)**.

Emergency response and evacuation procedures for Project 3 would be coordinated by the Los Angeles County Sheriff's Department ("LACSD") and the Los Angeles County Fire Department ("LACFD"). During Project 3 construction activities, the LACSD and LACFD require that adequate vehicular access be provided and maintained. The Traffic Control Plan for Project 3 would provide for the required access of emergency vehicles during construction activities. During operation of Project 3, Project operation staff would work with both the LACSD and the LACFD to ensure adequate emergency procedures are in place. The HMBP would include an Emergency Response Plan. Additionally, an Emergency Action Plan and a Fire Prevention Plan would be prepared for Project 3 as required by Cal/OSHA. These plans would ensure that Project 3 would have established plans and procedures for responding to emergency situations, and would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, Project 3 impacts to emergency response plans or emergency evacuation plans would be less than significant during both construction and operations. **(DEIR at 4.8-17)**.

Project 3 is not located within a Very High Fire Hazard Severity Zone. No impact would occur in this regard. **(DEIR at 4.8-17)**. A public water system for fire control does not exist near Project 3. The facility design includes a dedicated 10,000-gallon fire water storage tank to be installed and maintained at Project 3, in compliance with LACFD Regulation 19 and other applicable Fire Department water tank specifications. Because the SGF design includes a dedicated fire water tank meeting Fire Department requirements, the water and pressure would meet fire flow needs. Therefore, impacts would be less than significant. **(DEIR at 4.8-18)**.

Project 3 is surrounded by rural agricultural lands with no industrial uses, manufacturing uses, or other particularly high fire hazard uses in the vicinity. Project 3 would comply with all applicable Fire Code and County and City ordinance requirements, and fire safety standards, as stated in DEIR Section 4.12 Public Safety. A Fire Management Plan, which would be prepared for Project 3, establishes standards and practices that would minimize the risk of fire and, in the event of fire, provide for immediate suppression and notification. Therefore, a less than significant impact would occur. **(DEIR at 4.8-18)**.

Project 3 will convert sunlight into electrical energy through a process which would not constitute a fire hazard. All materials and equipment used in the construction of each facility would be specified based on applicable codes and building regulations. Welding activities may also potentially result in the combustion of brush and vegetation. A Fire Protection and Prevention Plan would reduce these potential impacts to less than significant. A Fire Prevention Plan would be prepared for Project 3 as required by Cal/OSHA, and Project 3 would include a dedicated 10,000- gallon fire water storage tank in compliance with LACFD Regulation 19. Therefore, Project 3 does not constitute a potentially dangerous fire hazard, and would have a less than significant impact on fire hazards in the area. **(DEIR at 4.8-19)**.

Project 3 impacts related to Hazards and Hazardous Materials are further reduced with the adoption of the following feasible mitigation measures:

HH-1 Prior to the start of construction activities, a Hazardous Materials Management and Hazardous Waste Management Plan shall be implemented for each project.

HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.

HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated.

2.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Project 3 would have a potentially significant impact on Hydrology and Water Quality if it would: violate any water quality standards or waste discharge requirements; 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; 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; 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; 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; generate construction or post-construction runoff that would violate applicable stormwater National Pollutant Discharge Elimination System ("NPDES") permits or otherwise significantly affect surface water or groundwater quality; 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); result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance; 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); otherwise substantially degrade water quality; 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; place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain; 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; or place structures in areas subject to inundation by seiche, tsunami, or mudflow.

Finding:

Changes or alterations have been required in, or incorporated into Project 3 which mitigate or avoid the potentially significant environmental effects related to Hydrology and Water Quality.

Facts Supporting the Finding:

A Notice of Intent form would be submitted to the State Water Resources Control Board ("SWRCB") to apply for coverage under the NPDES General Permit for construction of Project 3. During construction, Project 3 would implement BMPs as specified in the site-specific SWPPP. The SWPPP would be developed by a State of California certified Qualified SWPPP Developer ("QSD") and during construction monitored by a State of California certified Qualified SWPPP Practitioner ("QSP"). The SWPPP would be approved by the County and uploaded to the State via the State SMARTs system prior to Project 3 ground-breaking. The SWPPP would identify construction-phase BMPs to be implemented. With implementation of the BMPs, Project 3 and its associated gen-tie lines would only have the potential to generate less than significant effects on groundwater and/or stormwater runoff, and will not violate any water quality standards or waste discharge requirements during construction. **(DEIR at 4.9-34; 4.9-38)**.

During Project 3 operations, mechanical equipment on the solar farm would either be made of pollutant free materials or fitted with special containment units to house any possible drips or spills of lubricants, oils, or other chemicals. Maintenance activities, including solar array washing, would be performed with clean water and allowed to evaporate or drip to the ground. Maintenance and operations personnel would be required to maintain all necessary spill prevention, control, and countermeasures on hand during site visits. These spill response kits would include, but are not limited to, personal protective equipment, spill pads, absorbents, booms, shovels, garbage bags, plastic sheeting, and disposal drums. Permanent treatment BMPs would include infiltration basins to preserve water quality. With these spill prevention, control, and countermeasures on-site, there would be a less than significant impact on groundwater and stormwater runoff quality, and Project 3 will not violate any water quality standards or waste discharge requirements during operation. **(DEIR at 4.9-34; 4.9-38).**

As stated in Section 4.14.5 of the DEIR, water would be required for dust control measures during the duration of construction efforts. An analysis of the water supply, including the use of well water, is presented in DEIR Section 4.14 Utilities and Service Systems. At the outset of construction, water would be supplied via truck to meet the demands of Project 3. Well water is not considered available at this time, and would be reevaluated upon a change in status. The demands of Project 3 are anticipated to have a less than significant impact on the region's groundwater supplies. Furthermore, construction activities are not anticipated to interfere substantially with groundwater recharge. As stated in Section 4.14.5 of the DEIR, water may be required in the first few years of operation to establish the mature vegetation planted after construction. Similar to the construction period, water would be supplied via truck to Project 3. The volume of water required would be considerably less than the water required for construction activities. Well water would be considered if its availability changes. As with construction, impacts to the region's groundwater supplies are anticipated to be less than significant with operation of Project 3. Also, the effect on groundwater recharge by the

development's increase in impervious surface will be mitigated by the proposed infiltration basins. These infiltration basins will allow the increase in runoff volume from the proposed development (up to the 25-year storm event) to infiltrate on-site and recharge the groundwater basin. Therefore, less than significant impacts to groundwater recharge are anticipated. **(DEIR at 4.9-35)**.

During construction of Project 3 and its associated gen-tie lines, soils would be disturbed through activities such as minor grading and vegetation removal, which could lead to issues with soil erosion and siltation on- and off-site. Through the implementation of construction control measures per California Association of Stormwater Quality Agencies ("CASQA") standards (silt fencing, fiber rolls, and sandbag barriers), Project 3 would have less than significant impacts on erosion and debris deposition during construction (CASQA 2003). Project 3 and its associated gen-tie lines would require minor grading on-site which would not drastically change the existing drainage patterns or natural channels. Best Management Practices and the Hydrology Study/Drainage Concept/Standard Urban Stormwater Mitigation Plan ("SUSMP")/Low Impact Development ("LID") Reports would help account for the increase in runoff erosion capabilities resulting from the developments' increase in impervious surfaces. The infiltration basins would help reduce flow velocities and the sediment load of the runoff, which would lower the erosion and siltation capabilities of the runoff. Therefore, Project 3 would result in less than significant impacts to erosion and siltation on- and off-site. **(DEIR at 4.9-36)**.

Project 3 and its associated gen-tie lines would require minor grading on-site, which would not drastically change the existing drainage patterns or natural channels. The increase in runoff flow rates and volumes from the developments' increase in impervious surfaces would be addressed by Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to pre-development flow conditions before leaving the project site. With this measure, less than significant impacts would occur related to flooding on- and off-site. **(DEIR at 4.9-36)**.

Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would address the increase in runoff flow rates and volumes from the developments' increase in impervious surfaces. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to predevelopment flow conditions before leaving the Project site. The basins would be placed within the first half of the site to allow flows over the roads sections enough time to normalize before leaving Project 3. Project soils would treat the captured runoff at the infiltration basins. Therefore, less than significant impacts to existing or planned stormwater drainage systems are anticipated. Also, significant impacts to polluted runoff are not anticipated. **(DEIR at 4.9-36)**.

Project 3 and its associated gen-tie lines would incorporate Los Angeles County LID standards, while following the requirements of the Los Angeles County Department of Public Works ("LACDPW"). Existing on-site drainage patterns and channels would not be significantly altered by the Projects' minimal grading, and all off-site drainage patterns and channels would not be significantly impacted either. Best Management Practices and the Hydrology Study/Drainage

Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would allow the developments' increase in runoff (up to the 25-year storm event) to be both infiltrated and treated on-site. This also minimizes downstream impacts by returning to predevelopment flow conditions. Therefore, Project 3 will not conflict with the Los Angeles County Low Impact Development Ordinance. **(DEIR at 4.9-38)**.

Project 3 and its associated gen-tie lines are not in the vicinity of any SWRCB-designated Areas of Special Biological Significance. Therefore, no impacts are anticipated. During construction, wastewater treatment systems would not be necessary. The Projects would contract services to supply and maintain portable toilets. Therefore, the impacts of Project 3 to the quality of groundwater and surface water would be less than significant during construction. The same portable toilet services would be contracted for operations. Temporary portable toilet services would be delivered during the required maintenance periods on an as needed basis. As a result, there would be less than significant impacts to the water quality of groundwater and surface water during Project 3 operations. **(DEIR at 4.9-39)**.

Project 3 does not involve the construction of housing. Therefore, no housing will be placed within a 100-year flood hazard area, and no impacts are anticipated. **(DEIR at 4.9-39)**.

Project 3 is not located within a 100-year flood hazard area, floodway, or floodplain, or within the immediate vicinity of any levees or dams which would place people or structures at risk of significant loss, injury or death in the event of a failure. In the event of a failure of the aqueduct near Project 3, the distance between the site and the aqueduct would allow the flow to dissipate. Therefore, less than significant impacts are anticipated. Project 3 has slopes that very mild, at less than two percent. Therefore, high mudflow conditions are not anticipated. Accordingly, Project 3 will not place structures in an area subject to inundation by seiche, tsunami or mudflow. **(DEIR at 4.9-40)**.

Project 3 impacts related to Hydrology and Water Quality are further reduced with the adoption of the following feasible mitigation measures:

HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be available at each project site and a log kept to show education has occurred prior to the start of construction.

HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-3 No hazardous materials are anticipated to be stored on-site. If hazardous materials are required to be stored on-site, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code and store the materials according to applicable regulations. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance with the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often to prevent containers from overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.

2.10 LAND USE AND PLANNING

Potential Effect:

Project 3 would have a significant effect related to Land Use and Planning if it would: physically divide an established community; be inconsistent with 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; be inconsistent with the zoning ordinance as applicable to the subject properties; or conflict with Hillside Management criteria, Significant Ecological Areas conformance criteria, or other applicable land use criteria.

Finding:

Project 3 will not have a significant effect on the environment related to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

Project 3 is located within a sparsely populated area, and is not located within any established community. The closest established community is Antelope Acres, which is located

approximately 1.4 miles north of Project 3. Project 3 is located in an area that has been characterized by agricultural uses for several decades, and has been in transition to residential uses or vacant land. Project 3 would not physically alter the community, would not divide any community, or change any public access routes to them. Impacts would be considered to be less than significant. Likewise, Project 3's proposed gen-tie lines would not result in physical improvements that would result in dividing an established community, and the proposed gen-tie line would be located within a public right-of-way or an easement on private land. Therefore, Project 3 would not divide an established community, and impacts would be less than significant. **(DEIR at 4.10-36)**.

Project 3 is not located within the boundaries of a Community Standards District; therefore, no district development standards apply to Project 3. The Antelope Valley Areawide General Plan designates the Project 3 site as N-1, Non-Urban use. According to the Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations (County of Los Angeles 1986). Project 3 is considered a utility installation, and therefore would be consistent with the N-1 land use designation. As a result, Project 3 would be consistent with the General Plan Land Use designation. Development of Project 3 will be consistent with permissible uses associated with the land use designation and the policies, goals, and objectives outlined in the Los Angeles County General Plan and the Antelope Valley Areawide General Plan, and will not be inconsistent with any applicable County plan. **(DEIR at 4.10-36)**.

The gen-tie lines for Project 3 are linear infrastructure that would not result in any changes to the existing land use patterns in the area of Project 3. The gen-tie lines would be located underground within Los Angeles County to the extent practicable, and aboveground within the City of Lancaster, either in a public road ROW or on private lands adjacent to the public road ROW. Within the City of Lancaster, the gen-tie line routes would traverse land use designations "NU" Residential and "UR" in the City of Lancaster. According to the County's Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations. Additionally, the City's NU land use designation permits solar generating facilities and utility installations within its designation. In July 2013, the City approved a General Plan Amendment for the UR designation to NU designation for another applicant's solar project that the gen-tie line would traverse to connect to the Antelope Substation. A franchise agreement will be obtained by the Applicant with the City of Lancaster for the gen-tie line that will traverse through this jurisdiction. This agreement will grant a utility franchise and right of way privileges for the proposed gen-tie line. Therefore, no impact to County and City Plans would occur**.** **(DEIR at 4.10-37)**.

The Project 3 site and its associated gen-tie line would be located within Fox Airfield's airport influence area ("AIA"), Zone C. Prohibited uses under Zone C include: children's schools, libraries, hospitals, nursing homes, buildings with more than three habitable floors above ground, highly noise-sensitive uses, and hazards to flight. Hazards to flight include physical (e.g. tall objects), visual, and electronic forms of interference with the safety of aircraft operations. Land use development that may cause the attraction of birds to increase is also prohibited (Los Angeles County ALUC 2004). Project 3 would be consistent with the Fox Airfield Land Use Compatibility Plan. Therefore impacts would be less than significant. **(DEIR at 4.10-37)**.

The County's CUP entitlement process involves the discretionary review of a project, whereby conditions of approval for Project 3 would be assigned. A CUP Burden of Proof is required to be submitted to determine Project 3's consistency with the General Plan, compatibility with surrounding land uses, conditions to ensure compatibility, land suitability and physical constraints, project design, availability of adequate access, public services and facilities to serve the development, and identify potential environmental impacts and mitigation measures. As shown in DEIR Tables 4.10-1, 4.10-2, and 4.10-3, Project 3 is consistent with County land use designations and compatible with adjacent and surrounding land uses. **(DEIR at 4.10-43)**. The implementation of the environmental mitigation measures and CUP conditions would be expected to minimize Project 3's potential impacts, such that the Project could occur while maintaining zoning compliance within the designated zone. As a result, Project 3 would be consistent with the County's zoning designations. Permitting processes for those portions of the gen-tie lines located in the City of Lancaster would require necessary approvals from the City. Compliance with applicable City zoning regulations and conditions would ensure consistency with City's zoning designations. **(DEIR at 4.10-38)**.

Project 3 and lands adjacent to its associated gen-tie line ROW are located within the County's Heavy Agriculture (A-2) Zone. Project 3 is considered equivalent to an electric generating plant. Under the County zoning code for the A-2 zoning designation (Los Angeles County Code Section 22.24.150), electric generating plants and transmission substations are allowed in the A-2 zones with the issuance of a CUP. Lands adjacent to the gen-tie line for Project 3 would consist of the City's RR 2.5 Zone. The proposed gen-tie lines would be constructed underground within Los Angeles County unless other applicable regulations require above-ground installation and aboveground or underground within the City of Lancaster. The gen-tie lines would be located on private lands adjacent to the public road ROW or within the public road ROW. They are linear facilities that would not result in any changes to the existing land use patterns in the Project 3 area, and would be permitted as part of respective County CUP and City permitting requirements. **(DEIR at 4.10-38)**. As a result, implementation of Project 3 and its associated gen-tie lines would be expected to be consistent with County and City zoning designations, and would result in a less than significant impact relative to the A-2 zoning in Los Angeles County and the RR 2.5 zoning in the City of Lancaster.

As discussed in DEIR Section 4.4 Biological Resources, Project 3 and its associated gen-tie lines are not located within a designated SEA; therefore, SEA conformance criteria do not apply. Project 3 and the area for its associated gen-tie lines contain generally low slopes of less than 1 percent gradient, and would not be located within or conflict with designated Hillside Management Areas. Therefore, no impacts would occur. **(DEIR at 4.10-39)**.

Project 3 is located within an Agricultural Opportunity Area, as discussed in Section 4.2 of the DEIR. Project 3 would generate electrical power through renewable solar PV technology which is an allowable use with a CUP. Project 3 would convert land that was formerly used for agricultural production, to renewable energy production. Construction and operation of Project 3 would not involve other restrictions, obstructions, or resources that could result in conversion of farmland to nonagricultural use. Additionally, Project 3 would be located on fallow land that is currently not irrigated, with surrounding parcels being mostly undeveloped and fallow agricultural land. Project 3 would produce power in a passive manner and would result in

minimal air emissions, traffic, and noise, and would not affect adjacent agricultural operations. Therefore, a less than significant impact would occur. **(DEIR at 4.10-40)**.

Project 3 contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as discussed in DEIR Section 4.2 Agriculture and Forestry. Therefore, Project 3 will have no impact to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. **(DEIR at 4.10-40)**. No railroads are located within 0.5 miles from Project 3 and its gen-tie line. The nearest major highway is State Route 14, which is located approximately 4.8 miles east of Project 3. Project 3 is located approximately 1.3 miles west of Fox Airfield and within Zone C of the Airport Land Use Compatibility Plan for the Fox Airfield. Zone C contains most of the 55 CNEL contour. Prohibited uses under Zone C include: children's schools, libraries, hospitals, nursing homes, buildings greater than 3 habitable floors above ground, highly noise-sensitive uses (such as outdoor theaters), and hazards to flights. Project 3 represents a permitted use in this area, and a less than significant impact would occur with regard to any noise management areas. **(DEIR at 4.10-42)**.

Project 3 and its associated gen-tie lines are located within the 500-year floodplain Zone X (Unshaded). These areas are known to be of a very low flood risk. All of the Project 3 area would be developed, and measures would be taken in the design of the site's solar panels to account for the flood hazards. Therefore, a less than significant impact would occur. **(DEIR at 4.10-41)**.

2.11 NOISE

Potential Effect:

Project 3 would have a significant Noise impact if it would: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the project; result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or, for a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Finding:

Changes or alterations have been required in, or incorporated into Project 3 which mitigate or avoid the potentially significant environmental effects related to Noise.

Facts Supporting the Finding:

Construction of Project 3 would take place between the second and fourth quarters of 2014. Sound generated from Project 3 would consist of: (1) short duration sounds resulting from

construction activities, and (2) sound during normal facility operations. Vibration from Project 3 would only result during construction. Construction activities would take place only during daytime hours. An evaluation of expected noise and vibration levels was performed, and the ability of Project 3 to comply with applicable noise requirements was assessed.

The Draft EIR determined that the construction noise for Project 3 would be similar to that of Project 1; therefore, the Draft EIR's discussion of Project 3's noise impacts focused on the differences between Project 1 and Project 3, namely received sound levels at the nearest noise sensitive receptor. **(DEIR at 4.11-34)**. These Findings refer to certain facts from the Draft EIR's discussion of Project 1 noise impacts that are also applicable to Project 3.

For Project 3, the following criteria were determined to be inapplicable or to result in no impact:

- Exposure of on-site workers to noise levels that exceed occupational safety standards (90 dBA as a time-weighted 8-hour average or peak noise levels above 115 dBA).

- Exposure of residents to airport or private airstrip-related noise levels above a CNEL of 65 dBA.

Occupational noise exposure is governed by federal and state regulations. Cal/OSHA administers industrial safety regulations in California. Cal/OSHA regulations establish a time-weighted noise exposure limit of 90 dBA averaged over 8 hours (CCR, Title 8, Article 105). Noise source controls, administrative procedures, or worker hearing protection must be provided if worker noise exposure would exceed the 90 dBA limit. The construction contractor selected for the Project would be required to follow Cal/OSHA requirements for construction worker noise exposure. **(DEIR at 4.11-25; 4.11-30)**.

Sound from construction equipment would vary, depending on the construction phase and the number and class of equipment at a location at any given time. Actual received sound levels would fluctuate, depending on the construction activity, equipment type, and separation distances between source and receiver. **(DEIR at 4.11-30)**. Construction noise is a temporary noise source that would only occur during daytime hours. Sound levels from construction are expected to be comparable to sound produced by farm machinery, such as equipment used in nearby agricultural fields. Worst case construction noise levels for the nearest residence would last no more than a few weeks, as construction activities progress across Project 3. Therefore, no one residence would be exposed to significant noise levels for any extended period of time. **(DEIR at 4.11-27)**.

Sound from pile driving would attenuate to 88 dBA at the nearest residence to Project 3, and would attenuate to below 60 dBA within 1 linear mile of this construction activity, depending on meteorological and topographical effects. The average noise level from pile driving is predicted to be 68 dBA, similar to the level resulting at the Project centroid located 1,271 feet from the nearest residence. Because sound levels would be higher than 60 dBA at times, and up to 88 dBA at the closest residence, an exceedance of the County's construction noise level limits is anticipated. Therefore, where pile driving is planned to occur within 3,000 feet of an occupied noise sensitive receptor, an acoustic curtain or sound barrier with a sound transmission class of 19 or greater will be used to reduce received sound levels at the noise sensitive receptors to

levels at or below the County's construction noise limit of 60 dBA. Pile driving is expected to last more than 10 days, and a variance from the County of Los Angeles noise ordinance will be required. **(DEIR at 4.11-35)**.

Traffic noise generated during construction of Project 3 on and offsite would temporarily add to overall sound levels. As a general construction practice, functional mufflers would be maintained on all equipment to maintain noise levels as low as reasonably achievable. The Project 3 Applicant would make reasonable efforts to minimize noise resulting from construction activities, as described in Mitigation Measures N1 - N6. In sum, with mitigation measures implemented, including the use of sound curtains or barriers during pile driving, construction sound levels would be less than significant. **(DEIR at 4.11-27; 4.11-31)**.

Like noise from pile driving, vibration from pile driving would only last for a few weeks at most, and would move throughout the Project rapidly with no single noise sensitive receptor experiencing the peak 0.1 PPV for more than an few hours, which will be perceptible but will not damage structures. Therefore, exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels due to the construction of Project 3 and the gen-tie line will be less than significant. **(DEIR at 4.11-49)**.

General William J. Fox Airfield is located approximately one mile from Project 3. Residences near Project 3 are all located outside of the 65 dBA CNEL noise contour, which is the highest aviation sound level associated with compatible residential land uses according to FAA regulations (49 USC sections 47501-47510). One residence located 340 feet north of Project 3 is within the 55-60 dBA CNEL noise contour band. Sound contours developed for General William J. Fox Airfield indicate that Project 3 is within the 55-60 dBA CNEL noise contour and Zone C, the extended approach/departure zone. According to the airport's land use compatibility plan (Los Angeles County Airport Land Use Commission 2004), industrial uses such as utilities are acceptable uses in this zone. Sound levels from aviation activities would continue to dominate the acoustic environment, and sounds from Project 3 would not result in an increase in noise levels. Further from the airport but still relatively close to Project 3 (within approximately 1,000 feet) are a number of other residences. These residences are all assumed to be within the 40 dBA CNEL noise contour for the airport. Although noise contour mapping for the airport does not extend out this far, 40 dBA CNEL is a reasonably conservative assumption. Project 3 sound levels are not of sufficient strength to increase the acoustic environment at these residences either. For example, even assuming that Project 3 sound levels received at these residences are 40 dBA CNEL, the net increase would only be 3 dBA, which is less than significant. Project 3 sound levels would be less than 40 dBA CNEL; therefore there is no anticipated change in sound levels, and Project impacts would be less than significant. **(DEIR at 4.11-52)**.

Once operational, Project 3 would generate power using PV modules mounted in rows of parallel racks. The Project is anticipated to be unmanned during normal operation. Systems monitoring would be completed remotely and onsite staff would be limited to repair or cleaning of the PV modules. Maintenance staff would visit two times per year to clean the PV modules, seasonally to clear vegetation, and as needed to perform other general maintenance activities. **(DEIR at 4.11-35)**. Sound sources considered in the operational acoustic analysis include the inverters and transformers associated with the PV modules, the substation, and the transmission line. The

principal sources of noise are the cooling-ventilation fans, the electrical components of the inverters and the step-up transformers at the on-site substations. Noise generated by this equipment would be less than significant. Gen-tie lines for Project 3 would be above ground, and could be a source of corona noise. However, because corona noise is typically attributed to higher voltage lines of approximately 345 kV and above, noise complaints from the Project's lower voltage transmission lines (66 kV) are not anticipated. Operational sound sources are all predicted to be less than 35 dBA at nearby noise-sensitive receptors, and would be less than significant. **(DEIR at 4.11-35 to 4.11-37)**.

Project 3 impacts related to Noise are further reduced with the adoption of the following feasible mitigation measures:

N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.

N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.

N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.

N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.

N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.

N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.

N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest noise sensitive receptor are predicted to be above the County construction noise limit of 60 dBA during the day. With respect to mitigation during operation, potential impacts associated with on-site

substations are considered. Depending on the Project's acoustic design goals, final substation design may need to incorporate appropriate mitigation measures, including:

N-8 Siting substations to achieve National Electrical Manufacturers Association ("NEMA") sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project:

- Project 3 – 650 feet with a NEMA sound rating of 74 dBA

N-9 The Applicant shall use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.

2.12 PUBLIC SERVICES

Potential Effect:

Project 3 would have a significant impact on Public Services if it would 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 fire protection; sheriff protection; schools; parks; libraries, or other public facilities.

Finding:

Project 3 will not have a significant effect on the environment related to Public Services. No mitigation is required.

Facts Supporting the Finding:

Project 3 is located within the LACFD Battalion 11 service area. Station 112, which is 2.2 miles northwest of Project 3, is the jurisdictional station (i.e. the first-responder) to respond to incidents at the site. Additional fire stations within Battalion 11 (identified in DEIR Table 4.12-1) would also potentially be dispatched to respond to fire protection needs at the site. **(DEIR at 4.12-7)**.

During construction, workers would be temporary and would not be expected to relocate to the Project 3 area, as they would mostly be hired from the available local workforce, and would not be expected to result in significant changes to the local population; therefore, the construction of Project 3 is not anticipated to create significant changes to the local population that would increase the level of demand on fire protection services or that would increase the level of demand on the fire department services such that additional staff would be needed. **(DEIR at 4.12-7, 8)**.

As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 3 would not result in significant traffic impacts. The Project 3 gen-tie line would interconnect to an existing transmission line adjacent to the Project 3 site; therefore, it is anticipated that no street closures would be required for the construction of Project 3. **(DEIR at 4.12-8)**.

Based on the Applicant's commitment to conformance of construction activities at the Project 3 site and gen-tie line ROW to federal, state, and Los Angeles County ordinances for fire protection, and implementation of mitigation related to Hazards and Hazardous Materials, construction would not be expected to result in significant special fire problems or hazards. Additionally, construction traffic at the site would not be anticipated to have a significant impact on local intersections and road segments. Therefore, Project 3 impacts to LACFD service ratios, response times, or other performance objectives for fire protection would be less than significant. **(DEIR at 4.12-8)**.

Operations activities at Project 3 would typically be associated with routine maintenance carried out on-site and along the associated gen-tie ROWs at periodic intervals by a small maintenance crew. These activities would not result in effects to LACFD service ratios, response times, or other performance objectives for fire protection during operations of Project 3; therefore, impacts would be less than significant. In addition, the Applicant would be required to pay taxes as per the Proposition E Special Tax and property tax assessments, which are allocated to the LACFD. These taxes are designed to provide for potential increases in LACFD fire protection service demands to accommodate for new and existing developments. **(DEIR at 4.12-11).**

The Project 3 site is located within the LACSD Field Operations Region 1 service area. The Lancaster Station, which is approximately 7 miles southeast of Project 3, would likely be the first responder to incidents at the site. Currently the station maintains an officer-to-population service ratio of approximately 1 to 1,000. Project 3 does not involve any residential uses, and would not be considered to result in significant increases to population. During construction, workers would be temporary, and would not be expected to relocate to the area as they would mostly be hired from the available local workforce. The employees are planned to be hired from the available local workforce, and would not be expected to result in significant changes to the local population that would increase the level of demand on law enforcement services. **(DEIR at 4.12-12)**.

Sheriff services potentially required at Project 3 would likely include incidents of vandalism or theft. While these incidents would require sheriff services, they are not considered emergency response incidents, and as such would not affect emergency response times. As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 3 would not result in significant traffic impacts. The Project 3 gen-tie line would interconnect to an existing transmission line adjacent to the Project 3 site; therefore, it is anticipated that no street closures would be required for the construction of Project 3. Therefore, impacts from the construction of Project 3 to LACSD service ratios, response times, or other performance objectives for sheriff protection would be less than significant. **(DEIR at 4.12-13)**.

Project 3 and its associated gen-tie lines do not include residential development or the influx of long-term workers from outside the area, and accordingly would not generate population growth. Consequently, no new demands on school facilities, parks, library facilities or other public

facilities are expected, and no impact would occur to these facilities. **(DEIR at 4.12-15; 4.12-16)**.

2.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Project 3 would have a significant impact on Transportation and Traffic if it would: 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; conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks; substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); result in inadequate emergency access; or conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Finding:

Changes or alterations have been required in, or incorporated into Project 3 which mitigate or avoid the potentially significant environmental effects related to Transportation and Traffic.

Facts Supporting the Finding:

Traffic generated during the construction phase of Project 3 and its gen-tie line would include construction worker commuter trips, water truck trips, and delivery truck trips. Construction worker commuter trips and delivery truck trips are anticipated to arrive to the Project 3 site outside of peak hours. It is anticipated that 30 percent of water trucks would arrive to the Project site during the AM peak hour. Project 3 would have an average of 88 workers per day and a peak of 130 workers per day over a 20-day period during construction. For equipment and materials, Project 3 would have an average of 5 delivery truck trips per day with an expected peak of 23 delivery truck trips. It is anticipated that construction workers and delivery trucks would arrive to the Project 3 site outside of peak hours. **(DEIR at 4.13-29)**.

Dependent upon climatic conditions during construction, the maximum estimated water use for the Project 3 site is 82 acre-feet, which would be obtained from an off-site provider. Potable water would be brought in to the Project 3 site for drinking and domestic needs. During the site preparation and grading activities, water would mainly be used for soil compaction and control of fugitive dust generation. Subsequent to these construction activities, water usage would primarily be used for on-going dust suppression associated with the remaining construction of the Project. Project 3 would require a total of 29 daily water truck trips arriving on-site.

Assuming that 30 percent of the water trucks would arrive on-site during the AM peak hour (7:00 AM), 9 water trucks were used in this analysis. As shown in DEIR Tables 4.13-15 and 4.13-16, the local roads would experience a maximum increase in traffic volume of 34.62 percent during the AM peak hour. This is mainly due to the existing low volume and low peak traffic conditions for these roads, which are located in rural areas and operate well below the existing capacity of 1,600 vehicles per lane per hour for a 2-lane road. Therefore, it is concluded that these roads have adequate capacity to safely accommodate the increase from water truck traffic and would have a less than significant impact on the existing traffic conditions. **(DEIR at 4.13-32)**.

During construction of gen-tie lines associated with Project 3, it is anticipated that temporary, one-lane road closures would be necessary. A Project Traffic Plan would be prepared to address the temporary one-lane road closures and submitted to the County for approval prior to issuance/approval of the County Grading Permit, as indicated in Mitigation Measure TT-2. Parking, temporary office trailers, and construction and PV equipment lay-down areas would be located entirely within the Project 3 site boundary. The construction traffic impacts would be temporary, and less than significant with mitigation. **(DEIR at 4.13-33)**.

The operational phase of Project 3 is anticipated to only generate an average of 4 additional vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a maximum of 12 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis for the water truck trips described above, the operational phase vehicle trips are considered negligible. Therefore, no additional post-construction operational analysis was conducted. The operational phase of Project 3 would have a less than significant impact on the traffic and/or transportation infrastructure. **(DEIR at 4.13-33)**. Project 3 would not conflict with any applicable congestion management programs during the construction or operational phases. **(DEIR at 4.13-39)**.

Project 3 is within the General William J. Fox Airfield airport influence area. After consulting with the Los Angeles County ALUC, the ALUC notified the Applicant that no further review of Project 3 is required, because there is no anticipated impact. The consultation is included in Appendix B-12 of the Draft EIR. Therefore, air traffic would not be impacted by implementation of the Projects. The Projects would not include any buildings, structures, or other operations that would result in a change in existing air traffic patterns. The PV modules that would be used at the individual Project sites would be non-reflective and would not pose a hazard to air traffic. The Project 3 SGF would be connecting to the existing SCEAS via a 66 kV gen-tie line. Transmission line-related radio frequency interference ("RFI") is one of the indirect effects of transmission line operation. RFI is produced by the physical interactions of the electric fields generated by the transmission line. The level of RFI that occurs usually depends on the magnitude of the electric fields involved and the distance from the transmission line. It is usually associated with transmission lines of 345 kilovolts (kV) or greater. The Project transmission lines would connect to the existing SCE network with a 66 kV gen-tie line (less than 345 kV) and is not expected to adversely impact the surrounding areas with RFI effects. **(DEIR at 4.13-33; 4.13-39)**.

No existing roads would be altered by Project 3, and Project 3 does not include design features or uses that would substantially increase any hazards. Parking, temporary office trailers, and

construction and PV equipment lay-down areas would be located entirely within the Project 3 site boundary. Only temporary one-lane road closures are expected for the construction of the Gen-tie Lines. A Project Traffic Plan would be prepared to address the temporary one-lane road closures and submitted to the County for approval prior to issuance/approval of the Grading Permit. Therefore, Project 3 would not result in inadequate emergency access. Project 3 is located in rural areas of Los Angeles County and would not significantly decrease the performance or safety of public transit, bicycle, or pedestrian facilities. **(DEIR at 4.13-40)**.

Project 3 impacts related to Transportation and Traffic are further reduced with the adoption of the following feasible mitigation measures:

TT-1 Prior to issuance of a grading permit, Applicant shall document and submit all required information and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.

TT-2 Prior to any construction activities and/or issuance of required encroachment permits from Los Angeles County, the Applicant shall prepare worksite traffic control plans for review and approval from LACDPW and other affected agencies for any closures, partial closures of public streets, or work within or adjacent to the road right-of-way that impacts the movement of traffic. The Plans shall be prepared in accordance with the California Manual on Uniform Traffic Control Devices (2012).

TT-3 Additionally, the County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-000798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.

TT-4 Stagger construction work shifts before or after peak traffic hours.

TT-5 Schedule truck deliveries during off peak hours.

TT-6 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips. All other trips shall be at off peak hours.

TT-7 Prior to start of construction activities, Applicant shall provide worker education encouraging carpooling and vanpooling by workers and shall provide assistance for organizing vanpools and carpools. A log will be developed to show compliance.

2.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Project 3 would have a significant impact on Utilities and Service Systems if it would: exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards; 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; 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; not 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; 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; be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or 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.

Finding:

Project 3 will not have a significant effect on the environment related to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

The construction of Project 3 and its associated gen-tie lines would generate temporary and limited wastewater as a result of on-site construction workers. The wastewater generated would be collected at the on-site mobile sanitation facilities and then transported to a nearby wastewater disposal facility. In the event that additional wastewater is generated from construction activities, water would be stored in an on-site tank system and would be disposed of at an approved wastewater treatment facility. Construction and operational wastewater will be limited in quantity and significantly below wastewater treatment requirements of Los Angeles County and the RWQCB. **(DEIR at 4.14-14)**.

All wastewater would be treated according to the treatment requirements enforced by the NPDES permit authorized by the Lahonton Regional Water Quality Control Board ("LRWQCB"). Additionally, semi-annual washing of the PV modules would generate minimal wastewater during operation. However, since the wash water would only consist of demineralized water and dust washed off of the modules, it would not need to be treated at a wastewater treatment facility. This wash water would be allowed to infiltrate into the ground and evaporate as it drips off the PV modules. The wastewater generated from maintenance workers would be collected at the on-site temporary mobile sanitation facilities and then transported to a nearby wastewater treatment facility. Project 3 would not exceed the requirements of LRWQCB,

and therefore impacts would be less than significant. **(DEIR at 4.14-14)**. Likewise, construction and operation of Project 3 would not exceed the capacity of any treatment plant, and would have no impact to a wastewater system. Consequently, no new wastewater treatment facilities would need to be created and no existing facilities would need to be expanded. The maximum construction water use of Project 3 is 82 acre feet, and the maximum operational water use of Project 3 is 5.1 acre feet per year. No water system capacity problems would be created, and no new water systems or expansion of existing systems would be required. **(DEIR at 4.14-16)**.

Project Site 3 currently drains from west to east; the post-development condition would maintain this flow path. A SWPPP incorporating BMPs for temporary stormwater management would be prepared and approved before the construction of Project 3 and its gen-tie lines. The final design of Project 3 would allow the pre-development runoff amount to continue to sheet flow in the post-development condition to avoid disturbance to downstream drainage structures or wildlife. The design of Project 3 would eliminate the need for new drainage facilities or expansion of existing facilities. Therefore, Project 3 would have a less than significant impact on drainage facilities. **(DEIR at 4.14-18)**.

The construction for Project 3 and the Project 3 gen-tie lines would create a short-term temporary demand for water, primarily in association with dust control. The Applicant would provide a Dust Control Plan to the County prior to the start of construction activities. The plan would detail site-specific dust control measures designed to minimize water use during construction activities, while minimizing fugitive dust emissions. Project 3's maximum construction water use is 82 ac-ft. It is estimated that the Project 3 site would have potentially historically required at least 353 ac-ft of water per year for agriculture. Thus, the maximum construction water use of Project 3 is substantially less than the best estimate of water use of 353 AFY for agriculture, which was historically the primary land use of surrounding land. Based on potential estimated historic groundwater use at the site, there may be adequate groundwater supply within the western portion of the Basin to meet Project 3's construction water needs. In addition, according to the Antelope Valley Integrated Regional Water Management Plan ("IRWMP"), groundwater is considered a reliable water source in the Antelope Valley Groundwater Basin.

However, given that the Adjudication will not likely be resolved during construction of Project 3, water for Project 3 would be supplied via truck from either Homer LLC, or the City of Lancaster, both of which have provided "Will Serve" letters indicating their ability to meet the water demands of Project 3. Homer LLC would provide out-of- Basin water stored in the Antelope Valley Water Bank. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**.

As previously discussed, the potential estimated historical agricultural water usage for the Project 3 site was determined to be at least 353 AFY. Project 3's maximum construction water use is 82 ac-ft, which equates to 76.3 percent less than the potential estimated historical annual agricultural groundwater usage at the site. Either of the sources noted above would have

sufficient reliable water supplies available to serve the Project 3 construction demands from existing water source entitlements and water resources. Therefore the impacts from water usage during construction would be less than significant. **(DEIR at 4.14-22)**.

During operations, the maximum water use for Project 3 would be 5.1 AFY. A maximum of 5.1 AFY of additional water may be needed in the first 2 years of operation to establish the plants for the landscaping buffer. It is unlikely, but possible that additional water (up to 5.1 AFY) may be needed later during the operations phase for supplemental plantings if landscape vegetation expires and has to be replaced. As with the Project 3 water needs during construction, during operations Homer LLC would also provide out-of-Basin water stored in the Antelope Valley Water Bank. This option would provide a reliable source of water for operations. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**. Therefore, the impacts from water usage during operations would be less than significant. **(DEIR at 4.14-22)**.

Project 3 and its associated gen-tie lines do not require natural gas or propane during construction or operation; therefore there would be no system capacity problems for those utilities. Since natural gas and propane are not needed for Project 3, no new energy facilities would need to be created, and no existing facilities would need to be expanded. Project 3 may require electricity for the construction equipment and for lighting construction activities. The electricity would likely come from one of the existing SCE lines located on the west and south sides of the site. Electricity consumption during construction would be temporary, and would vary depending on the phase of construction. Overall, the construction of Project 3 would require limited electrical consumption that the existing electrical grid has capacity to serve. Therefore, Project 3 would have a less than significant impact on energy utility system capacity during construction. **(DEIR at 4.14-25)**.

Project 3 would also require electricity for ongoing maintenance operations, lighting, security systems, and other various operational needs. During daylight hours, the electricity needs for Project 3 would be supplied by Project 3's electricity generation. During non-daylight hours, the electricity needs for Project 3 would be provided by either backfeed from the electrical grid, through the proposed gen-tie, or through the existing SCE lines located on the west and south sides of the Project 3 site. Therefore, Project 3 would have a less than significant impact on energy utility system capacity. **(DEIR at 4.14-26)**.

Construction of Project 3 would require minimal ground disturbance during the facility installation. Solid waste generated from construction of Project 3 (and gen-tie lines) may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty non-hazardous containers, and vegetation wastes. In accordance with Title 22 Chapter 22.52, 65 percent of construction and demolition debris would be recycled. Any material that cannot be recycled would be properly disposed of at a regional disposal facility. Any defective or broken solar modules would be returned to the manufacturer for recycling. In accordance with Title 22 Chapter 20.87, the Applicant would prepare a Recycling and Reuse

Plan and progress reports to implement and document the Project's recycling practices. Therefore, Project 3 construction impacts on landfill and solid waste disposal capacity would be less than significant. **(DEIR at 4.14-26)**. Once the SGF is installed, there would be minimal waste generated during Project 3 operations; therefore Project 3 will have a less than significant impact on landfill and solid waste disposal capacity during operations. **(DEIR at 4.14-27)**.

Non-hazardous waste generated during construction, operation, and decommissioning of Project 3 (and gen-tie lines) would be transferred by licensed waste hauling contractors and recycled or disposed of in compliance with local and state regulations. Hazardous wastes would be shipped offsite and treated or disposed in accordance with all applicable laws and regulations for hazardous waste management. The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 3. Project 3 would have no impact relative to compliance with existing federal or state regulations pertaining to solid waste, because Project 3 would be required to comply with all relevant regulations during construction, operation and decommissioning. **(DEIR at 4.14-27)**.

SECTION 3.0 FINDINGS REGARDING CUMULATIVE ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

Pursuant to Section 15130 of the CEQA Guidelines, the following findings and statements of fact identify potentially significant cumulative impacts and Project 3's incremental contribution to the impacts discussed in the Final EIR, in the context of the other five Projects and other cumulative projects. For the following environmental resource areas, Project 3's incremental effect is not cumulatively considerable, and no cumulatively significant impact will occur.

3.1 AESTHETICS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Aesthetics.

Finding:

Changes or alterations have been required in, or incorporated into Project 3, which mitigate or avoid significant environmental effects. Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Aesthetics.

Facts Supporting the Finding:

Individually, with mitigation, each of the six proposed SGF Projects can each be expected to have a less than significant impact on aesthetic resources. The Project sites comprise 987.1 acres, or 0.6 percent of the total area within the 5 mile radius. Within the 5-mile radius area, there are 20,909 acres of development listed by individual projects, as shown in DEIR Table 3-7. These

development projects, including the Applicant's Projects, comprise 12.6 percent of the area identified in DEIR Figure 3-5 and include solar projects, commercial projects, and residential projects.

From elevated viewpoints, the western Antelope Valley appears as a mosaic of agricultural lands, suburban developments, and open land. From a distance, the proposed SGFs would not appear dissimilar to agricultural fields or existing PV facilities in shape and size. The other solar and real estate developments proposed for the western Antelope Valley would not appear dissimilar to existing land use patterns. From level viewpoints, such as those along local roads, solar or residential/commercial developments would not be prominent unless the observer is directly adjacent to the facility. Because of the flat nature of the Antelope Valley landscape, developments would quickly become less prominent as the viewer travels away from them. In addition, the scenic character on the valley floor is generally low. Existing commercial, residential, and energy developments (including substations, high-voltage transmission lines, distribution lines, and generation facilities) are scattered throughout the valley.

A 12.6 percent level of increase in development within 5 miles of each of the Project sites is not anticipated to be significant from elevated or level viewpoints, because the proposed developments would appear similar to existing developments in the Antelope Valley, and cover only a very small portion of the land within 5 miles of each proposed Project site. Views of open desert lands would still exist, and the flatness of the landscape would limit the prominence of new developments with increasing distance.

The proposed Projects and other proposed projects within the cumulative impacts study area would be individually required to comply with the Los Angeles County General Plan goals and policies, and the Antelope Valley Area Plan policies, as well as applicable ordinances such as the Los Angeles County Rural Outdoor Lighting District Ordinance, as they are applicable to aesthetic resources, as identified in Section 4.1.3 of the DEIR. Any cumulative aesthetic impacts would be reduced to a level that is less than significant with mitigation by application of these regulations, and mitigation measures A-1 to A-5. **(DEIR at 4.1-114 to 4.1-115)**.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Cumulative impacts to Agriculture and Forestry Resources could occur in the event that Project 3, in conjunction with the six proposed SGF Projects and other cumulative projects results in the area results in a cumulatively significant loss of Important Farmlands or Williamson Act contracted lands.

Finding:

Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable law ordinances regulations and standards.

Projects 1 – 6 are located in a region with significant agricultural uses. However, the Antelope Valley has been historically and is currently limited by water costs and climate conditions. Cumulatively, the Projects would not develop land classified as Prime Farmland or Farmland of Statewide Importance. Project 4 is the only site that currently contains land designated as Prime Farmland and of Statewide Importance. As mentioned above, the DOC is in process of reclassifying Project 4 land currently mapped as Prime Farmland and Farmland of Statewide Importance to Grazing Land on the 2012 edition of the Important Farmland Map for Los Angeles County. The Projects would not be expected to contribute to the overall trend of conversion of agricultural lands to other uses in the Antelope Valley when considered together with other potential cumulative projects in the area. That said, it is contemplated that at the end of the anticipated 35-year life of Projects 1-6, the associated properties could be returned to agricultural use. The Projects' incremental contribution to cumulative agricultural impacts is considered less than significant. **(DEIR at 4.2-9)**.

3.3 AIR QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Air Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 3, which mitigate or avoid significant environmental effects to Air Quality. Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Air Quality.

Facts Supporting the Finding:

Twenty-nine related projects have been identified within the proposed Projects' vicinity; locations are listed in DEIR Figure 4.3-2, "Cumulative Projects in the Region". Of these 29 related projects, there are a number of related projects that have not yet been built or are currently under construction. Since the Applicant has no control over the timing or sequencing of the related projects, and the level of emissions that would be generated by the related projects is uncertain, it is infeasible and speculative to prepare a quantitative analysis to ascertain daily construction emissions that would occur under a worst-case scenario of all 29 related projects being constructed concurrently with the Applicant's six Projects.

For this reason, the AVAQMD was consulted to assess the cumulative impact resulting only from the Applicant's six Projects. The County's EIR consultant (Tetra Tech) met with AVAQMD officials and technical staff at the AVAQMD's office on May 29, 2012, and discussed the proper cumulative Air Quality analysis methodology for the Project pursuant to CEQA. **(DEIR at 4.3-48)**. AVAQMD determined that cumulative impacts from the Applicant's six Projects should be cumulatively quantified based on size, construction equipment per phase, and construction phase duration, and that the related projects should only be qualitatively discussed within the EIR. The cumulative Air Quality analysis was performed based on the direction from AVAQMD, and included the analysis of concurrent construction and operation emissions sources on any one maximum construction day, air dispersion modeling method, and risk assessment method. **(DEIR at 4.3-48)**.

As previously discussed in the analyses above (DEIR Table 4.3-13, "Peak Annual Construction Emissions"; DEIR Table 4.3-20, "Peak Annual Operation Emissions"; and DEIR Table 4.3-22, "Concurrent Health Risk Assessment"), emissions from overlapping construction phases of the Applicant's six projects would not exceed the AVAQMD thresholds on any maximum day or year during construction or operations. **(DEIR 4.3-30; 4.3-49)**.

With respect to the Project's construction-period air quality emissions and cumulative Basin-wide conditions, the AVAQMD has developed strategies to reduce criteria pollutant emissions outlined in the Air Quality Management Plan ("AQMP") pursuant to CAA mandates. As such, Project 3 would comply with AVAQMD Rule 403 requirements, and implement all feasible mitigation measures. In addition, Project 3 would comply with adopted AQMP emissions control measures. Per AVAQMD rules and mandates and the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects Basin-wide, which would include each of the related projects mentioned below. **(DEIR 4.3-49)**.

By applying AVAQMD's cumulative air quality impact methodology, implementation of Projects 1 – 6 would not result in an addition of pollutants, such that considerable cumulative impacts in conjunction with related projects in the region would occur. Therefore, the emissions of nonattainment pollutants and precursors generated cumulatively by Projects 1 – 6 would be less than significant. Projects are deemed inconsistent with air quality plans when they result in population and/or employment growth that exceeds growth estimates in the applicable air quality plan. The SGF sites would not conflict with or obstruct implementation of the applicable air quality plan, which in this case is the Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area). The Ozone Attainment Plan relies upon future year emission inventories consistent with California Air Resource Board ("CARB") and the adopted General Plan growth projections. As the proposed Projects are not part of an ongoing regulatory program, the AVAQMD recommends Project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed above, peak daily emissions of operation-related pollutants would not exceed AVAQMD significance thresholds.

The combined Projects' emission estimates state that while Projects 1 – 6 would generate air emissions during construction and a minimal amount of GHG emissions during operations, the

Projects' incremental contribution, with mitigation, to cumulative air quality impacts do not exceed any air quality significance thresholds and would comply with the applicable AVAQMD AQMP. It should be noted that solar energy provided by the Projects is a much cleaner source of energy than traditional sources used for the generation of electricity, such as the burning of coal, fuel oil, or natural gas. Furthermore, since the percentage of GHG emissions generated by Projects 1 – 6 is so small; Projects 1 – 6 would provide a *de minimis* contribution to significant cumulative impacts caused by other projects in the region (as further discussed in DEIR Section 4.7, Climate Change and Greenhouse Gas). The Projects' emissions of non-attainment pollutants and precursors generated during operations with mitigation would not exceed the AVAQMD Project-level thresholds and are less than significant. As a result, Project-level emissions would not result in a cumulatively considerable contribution, such that results in an increase in air pollutant emissions above those assumed in the regional AQMP. **(DEIR at 4.3-52)**.

3.4 BIOLOGICAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Biological Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 3, which mitigate or avoid significant environmental effects to Biological Resources. Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Biological Resources.

Facts Supporting the Finding:

The total area included in the map in DEIR Figure 3-17 showing a 5.0 mile radius outward from each of the Project 1 – 6 solar sites comprises 165,349 acres. Solar development in the area is 8,086 acres (4.9 percent of the 165,349 acres shown in DEIR Figure 3-17). The Silverado Projects cover 987 acres (only 0.6 percent of the total area). Open space and wildlife mitigation lands would be acquired and preserved in perpetuity for Projects 1 – 6. Since the mitigation lands are intended to comprise higher quality wildlife habitat than those impacted by the Projects, impacts will be mitigated. The permanent nature of the land mitigation and preservation program to be implemented would assure that these new wildlife habitat mitigation lands would always be maintained and enhanced for wildlife values. Therefore, cumulative impacts from the Project would be less than significant. **(DEIR at 4.4-71)**.

3.5 CULTURAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Cultural Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 3, which mitigate or avoid significant environmental effects to Cultural Resources. Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Cultural Resources.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. As described above under impacts specific to Project 3, impacts related to cultural resources would be mitigated to less than significant levels, since the CRHR and NRHP eligible resources in the area would be avoided. Because impacts to cultural resources would be mitigated to less than significant through avoidance, Projects 1 – 6 would not result in an incremental increase in effects on cultural resources when combined with the other 29 projects. Therefore, no significant cumulative impacts would be expected to occur. **(DEIR at 4.5-35)**.

3.6 GEOLOGY AND SOILS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Geology and Soils.

Finding:

Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). For the purposes of this

cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time.

It is assumed that construction of all of the cumulative projects would comply with all applicable laws, ordinances, regulations and standards, and that geotechnical studies would be performed to assess and mitigate any geotechnical hazards associated with them; therefore, the cumulative projects would not expose people or structures to potential substantial adverse effects. It is also assumed that the cumulative projects would comply with all applicable erosion control and stormwater management laws, ordinances, regulations and standards, therefore the construction of the cumulative projects would not contribute to cumulative soil erosion or loss of topsoil.

Proposed Projects 1 – 6 would not expose the public to adverse effects from strong seismic ground shaking because the Projects would be contained within a secure fenced area at each location and not open to the public. The potential for injury to workers is also quite low as they will not be on-site the majority of the time, and the likelihood that a seismic event would occur when workers are present is quite small. The Projects would also not result in significant soil erosion because the design and construction of the Projects' facilities would comply with all applicable building codes and standards established by regulatory agencies, including Los Angeles County Department of Public Works and the CBC. The proposed Projects 1 – 6 would therefore not contribute incrementally to cumulative impacts resulting from other development within the 5-mile radius. **(DEIR at 4.6-27)**.

3.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Greenhouse Gas Emissions and Climate Change.

Finding:

Changes or alterations have been required in, or incorporated into Project 3, which mitigate or avoid significant environmental effects to Greenhouse Gas Emissions and Climate Change. Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

As defined in CEQA Guidelines Section 15355, a "cumulative impact" is an environmental effect that may result from the combination of two or more environmental effects associated with a proposed project, or from the combination of one or more project environmental effects with related environmental effects caused by other closely related projects. However, in the case of global climate change, the proximity of the Projects to other GHG-generating activities is not directly relevant to the determination of a cumulative impact. Although AB 32 sets statewide targets for future GHG emissions, the scoping plan and other implementing tools of the law are

clear that the reductions are not expected to occur uniformly from all sources or sectors. The conclusions related specifically to Project 3, above, highlights the manner by which the proposed Projects intend to meet many of these strategies.

Numerous options exist for project developers to reduce their contribution to city-, county-, and state-wide GHG emissions, while helping to meet the region's future housing, jobs, and infrastructure needs. However, it is not possible at this time to accurately quantify GHG emissions expected from the related Projects or the GHG reductions anticipated from the above-listed strategies. There is no certain basis for concluding that an emissions increase resulting from the Projects and the related Projects could cause a measurable increase in global GHG emissions sufficient to force global climate change due to the complex physical, chemical and atmospheric mechanisms involved in global climate change.

In addition, the emissions models used for Project-level evaluations do not fully reflect improvements in technology and other reductions in GHG emissions that are likely to occur pursuant to state regulations, such as AB 1493, SB 1368, AB 32, and Executive Order S-3-5, as well as future federal and/or state regulations. Therefore, it is not possible or meaningful to calculate emissions from each of the identified related Projects and compare that with a numeric threshold or reduction target. Projects 1-6 would be consistent with the state's goals in helping the state meet the RPS (DEIR Table 4.7-17), resulting in a GHG emission profile that is below established thresholds, and include implementation of Mitigation Measures GHG-1 to GHG-5. Therefore, the Projects do not contribute considerably to cumulatively significant global climate change impacts. **(DEIR at 4.7-31)**.

3.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Hazards and Hazardous Materials.

Finding:

Changes or alterations have been required in, or incorporated into Project 3, which mitigate or avoid significant environmental effects to Hazards and Hazardous Materials. Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Hazards and Hazardous Materials.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all laws, ordinances, regulations and standards. It is assumed that for each of the cumulative

projects, Hazardous Materials Management Plans and Hazardous Waste Management Plans would be implemented, a SWPPP would be prepared, and all applicable environmental due diligence would be conducted (i.e., a Phase I ESA). If any of the cumulative projects are within an airport land use plan or airport influence area, the projects would obtain the appropriate authorizations and permitting from the respective Airport Land Use Commission. The cumulative projects would have a less than significant impact with mitigation to hazards and hazardous materials.

Based on the land uses in the surrounding areas (primarily agricultural) and the limited amount and type of hazardous materials to be used as part of the proposed Projects 1 – 6, no significant incremental cumulative impacts associated with environmental safety are expected to occur as a result of the construction and operation of the proposed Projects 1 – 6. Regulations implemented by the Department of Toxic Substance Control ("DTSC"), LACSD, LACFD, and Cal/OSHA would require similar measures be applied to other developments in the region. Therefore, Projects 1 – 6 are not expected to result in significant incremental cumulative impacts related to hazards and hazardous materials. **(DEIR at 4.8-19 to 4.8-20)**.

3.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Hydrology and Water Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 3, which mitigate or avoid significant environmental effects to Hydrology and Water Quality. Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Hydrology and Water Quality.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Project sites, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-3). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws ordinances regulations and standards. Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. As shown in DEIR Table 3-7 and DEIR Figure 3-17, the proposed Projects would entail approximately 0.60 percent of all proposed projects within a 5-mile radius.

All cumulative projects that may be approved and implemented would also assess potential impacts related to hydrology and water quality. The proposed Projects 1 – 6 were found to have less than significant impacts related to erosion, flooding, debris deposition, and stormwater quality, with no off-site impacts. Additionally, the proposed Projects would not result in any significant or unavoidable impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5-mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative impacts associated with other projects in the Projects' region. **(DEIR at 4.9-45)**.

3.10 LAND USE AND PLANNING

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Land Use and Planning.

Finding:

Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6. The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations, and standards. **(DEIR at 4.10-43)**.

Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. Similar potential impacts can result from these projects as from the Projects with respect to consistency with the subject general plan land use plans and policies, impacts to compatibility with surrounding land uses, and regulatory compliance with zoning ordinances. All cumulative projects that may be approved and implemented would also assess potential impacts related to land use and planning. The proposed Projects were found to have less than significant impacts related to compliance with County zoning, consistency with the County General Plan Land Use Plan intent and applicable land use conformance criteria, dividing an existing community, and with no significant impacts to the adjacent City of Lancaster. Additionally, the proposed Projects would not result in any significant or unavoidable land use impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5 mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative land use related impacts associated with other projects in the region. **(DEIR at 4.10-44)**.

3.11 NOISE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative Noise impacts.

Finding:

Changes or alterations have been required in, or incorporated into Project 3, which mitigate or avoid significant Noise impacts. Project 3, in conjunction with other development projects, will not result in a cumulatively significant Noise impact.

Facts Supporting the Finding:

Two non-Applicant projects identified have the potential to result in cumulative construction noise impacts, due to the projects being located in relatively close proximity to the proposed Projects, but not close enough to result in vibration impacts. The Western Antelope Dry Ranch project (CUP 11-07) is located approximately 1-mile north of Project 2, and the High Desert LLC (CUP 10-03) project is located approximately 1-mile north of Project 4. These distances are close enough that construction noise could propagate out to distances near the Applicant's Projects, but are not close enough to potentially result in vibration impacts. The time period of construction for these two projects is unknown, but if construction were to overlap with construction of the proposed Projects, there is the potential for increased temporary noise levels at residences; however, none of the noise sensitive receptors that are located in close proximity to Project 4 are also located in close proximity to Antelope Solar 1 or Antelope Solar Farm projects. Therefore, sound levels from construction of the Projects would only be minimally increased (less than 1-2 dBA), or not at all, by simultaneous construction. Therefore, overall cumulative impacts of the proposed Projects 1 – 6 would be less than significant with implementation of Mitigation Measures N-1 to N-9. **(DEIR at 4.11-56)**.

3.12 PUBLIC SERVICES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Public Services.

Finding:

Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Public Services. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. It is assumed that for each of the cumulative projects, worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts would be implemented. **(DEIR at 4.12-16)**.

Projects 1 – 6 would not cause effects to result in significant demands to fire response times. Projects 1 – 6 would be designed with appropriate fire protection considerations, and would also result in less than significant impacts to staffing and response times. Furthermore, Projects 1 – 6 would be required to provide taxes to the County that are designed to address cumulative fire department needs associated with new and existing developments. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes and fees to the County to provide for their potential increase to LACFD fire protection service demands (LACFD 2009). Additionally, all development in the area is subject to review and approval by the Fire Department. This ensures that all projects contain appropriate controls to reduce demand on the fire department. As a result, Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative fire protection impacts. **(DEIR at 4.12-17)**.

Projects 1 – 6 would not cause effects to result in significant demands to sheriff staffing or response times. Projects 1 – 6 would also implement site security control, including 24-hour remotely monitored video cameras for security monitoring to prevent potential theft and vandalism activities. Additionally, a portion of Projects 1 – 6 taxes levied would be allocated to sheriff services. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes that would be allocated to sheriff services. As a result, construction and operation of Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative sheriff protection impacts. Therefore, cumulative impacts associated with sheriff services would be less than significant. **(DEIR at 4.12-17)**.

Because development of Projects 1-6 will not induce population growth, no direct or cumulative impacts to schools, parks, libraries or other public facilities will occur. **(DEIR at 4.12-15; 4.12-16)**.

3.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Transportation and Traffic.

Finding:

Changes or alterations have been required in, or incorporated into Project 3, which mitigate or avoid significant impacts to Transportation and Traffic. Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Transportation and Traffic.

Facts Supporting the Finding:

Cumulative impacts for transportation and traffic are the combined effect of Projects 1 – 6 with the impacts of other past, present, and reasonably foreseeable future projects (other projects). This Cumulative Impacts discussion addresses the cumulative impacts of the Applicant's Projects 1 – 6 and the other projects within a geographic radius of 5-mile radius of the Projects (Project Study Area), which could potentially coincide with the expected construction schedule of the Applicant's Projects. Based on evaluation of the Project Study Area and available data from Los Angeles County, there are 29 other projects that have the potential to contribute additional traffic volume within the vicinity of Projects 1-6.

Evaluation of the cumulative impacts within the Project Study Area was focused on the construction-phase traffic for Projects 1-6 and other projects within a 5-mile radius. As previously stated in the individual conclusions for Project 3 above, the operational phase for each Project is anticipated to only generate a maximum of 4 vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a maximum of 12 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis contained in the DEIR, the operational phase vehicle trips/traffic for the Projects are considered negligible and would not result in a significant cumulative impact on the traffic and/or transportation infrastructure in the Project Study Area. **(DEIR at 4.13-41 to 4.13-43)**.

3.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 3), have the potential to result in cumulative impacts to Utilities and Service Systems.

Finding:

Project 3, in conjunction with other development projects, will not result in a cumulatively significant impact to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis

assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, and regulations. Construction and operation of the cumulative projects would result in less than significant impacts to public facilities, which include electricity, gas, wastewater, and solid waste services. During construction, all cumulative projects would follow required measures to prevent construction interference to utility services, and would comply with recycling requirements to minimize solid waste disposal at solid waste facilities. During operation, the solar and wind generation projects would provide electricity, and would generate minimal amounts of solid waste. During operation, the non-solar/non-wind commercial and residential development projects would generate solid waste as would be expected from these residential and commercial uses; it is assumed that these project proponents have planned for and mitigated for the additional solid waste generation as appropriate.

The proposed Projects 1 – 6 would provide their own electricity for operational needs, no natural gas would be required for their operations, little wastewater (from panel washing) would be generated as part of the operations process, and very little solid waste would be generated. As a result, the total cumulative impacts to utility services would be less than significant, and the incremental contribution of Projects 1 – 6 to cumulative impacts related to utility services would be less than significant. Furthermore, because the Applicant has committed to using out of Basin water during construction and operations, Projects 1 – 6 would not result in a cumulatively considerable contribution to water supply impacts in the Basin, and would have no significant cumulative effect on water supply. **(DEIR at 4.14-28)**.

SECTION 4.0 FINDINGS REGARDING PROJECT ALTERNATIVES

These Findings and Statements of Fact regarding project alternatives and certain mitigation measures identified in the Final EIR are set forth to comply with Section 21002 of the Public Resources Code and Sections 15091(a)(3) and 15126.6 of the CEQA Guidelines. Five alternatives to the proposed Project (consisting of Projects 1-6) described in the Draft EIR were analyzed and considered as follows: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites Alternative; 4) Rooftop Solar Generation Alternative; and 5) Wind Energy Generation Alternative. These alternatives constitute a reasonable range of alternatives necessary to permit a reasoned choice. For the reasons set forth below, Alternatives 1-5 are rejected as infeasible for the specific economic, legal, social, technological, or other considerations set forth below.

4.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

Description:

Under the No Project Alternative, Project sites 1-6 would remain in their present condition with site conditions (i.e., fallow agricultural land) as they currently exist.

Finding:

The No Project Alternative is rejected as infeasible because it fails to meet the Project goals and objectives, and would not contribute to the State's ability to meet its near- and long-term renewable energy generation goals and objectives.

Facts Supporting the Finding:

The proposed Projects 1 – 6 would not be approved or implemented under the No Project Alternative. The potential environmental impacts and benefits of the proposed Projects would not occur as a direct consequence of implementation under the No Project Alternative. The No Project Alternative would involve taking no action to generate 172 MW of clean, renewable electrical power utilizing solar PV technology and to integrate the electrical output of the Projects into the electrical grid. This alternative would not allow one of the primary purposes of the proposed Projects which is to increase the output of renewable energy in support of the RPS, such that the State of California may meet its current and planned goals for increasing renewable generation at reasonable market rates.

The No Project Alternative assumes that the sites will remain as they currently exist (primarily fallow agricultural land) and no environmental impacts would result. In summary, the No Project Alternative is provided for comparative purposes to the proposed Projects 1 – 6. This alternative is incapable of meeting the stated goals and objectives of the Projects to provide 172 MW of renewable electric energy to utility providers, and does not contribute to the state's ability to meet its near-term and long-term renewable energy generation goals and objectives. **(DEIR 5-1 to 5-2)**.

4.2 ALTERNATIVE 2: LOWER INTENSITY PROJECTS

Description:

Under the Lower Intensity Projects Alternative, fewer than six sites would be developed, and the smaller projects would be developed in a size and configuration that would result in generation of fewer than 172 MW of electricity.

Finding:

The Lower Intensity Projects Alternative is rejected as infeasible because it partially fails to accomplish the goals of the proposed Projects, which are to provide 172 MW of clean, renewable electric energy using solar PV technology, and to deliver the electric output on a wholesale basis to utility providers.

Facts Supporting the Finding:

Projects 1-6 are designed to meet the increasing demand for clean, renewable electrical power. Any reduction in the size of the effort results in a similar potential reduction in the reliance on foreign sources of fuel, the diversification of energy portfolios, the contribution to the reduction

of GHG emissions, and the generation of "green" jobs. It would also potentially reduce the contribution to the much needed on-peak power to the electrical grid in California.

The opportunity to develop solar power in Los Angeles County has a limited timeframe because the utility companies, which purchase the power, would purchase power from another entity if the proposed Projects are not completed in a timely manner. If Los Angeles County does not approve the six viable SGFs proposed here, the opportunity to contribute to the competitive solar generation business in the County will be further lost to other projects. The proposed Projects are well-positioned to compete in the industry, are comparatively environmentally superior to most other locations, and have good positions for PPAs and interconnection agreements. Additionally, any reduction of the megawatts produced from these Projects would further limit the County's contribution to the State's renewable energy production goals. These 5 to 52 MW Projects meet the utility industry needs for small projects, and any reduction of the respective Projects' size would jeopardize the success of the Projects. **(DEIR at 5-2)**.

4.3 ALTERNATIVE 3: SELECT OTHER PROJECT SITES ALTERNATIVE

Description:

Under the Select Other Project Sites Alternative, other properties could potentially be used for the six Project sites.

Finding:

The Select Other Project Sites Alternative is rejected, because this alternative would have the same or greater impacts to the environment as Projects 1-6, which can all be mitigated to below a level of significance.

Facts Supporting the Finding:

One key objective for the Project Applicant was to locate the Projects in an area with the following characteristics: (1) adequate solar radiation; (2) close proximity to interconnection locations for each solar site; (3) project sites with landowners who are willing to sell large enough parcels of land for solar generation at market price; (4) lack of threatened and/or endangered biological species on the site; (5) lack of nearby sensitive receptors or land uses to minimize potential conflicts with development (6) relatively flat sites that have previously been disturbed to minimize disturbance to native habitat and to minimize the need for site grading; (7) existing access to accommodate construction workforce needs; and (8) access to nearby workforce to minimize traffic and socioeconomic impacts. The Applicant performed in-depth analyses of over 10,000 acres of land in the Western Antelope Valley, as shown in DEIR Figure 6-1. Of the 10,000 acres screened, only ten percent met the criteria listed above.

The six Project sites selected and proposed by the Applicant are the most viable sites to develop solar electricity generation with minimal environmental impacts. These sites were also chosen for development based on interconnection capacity and requirements placed on the Applicant by the utility providers. Selection of other alternative sites would have the same or greater impacts

to the environment since the present Projects are the result of a long and intense effort by the Applicant to find and acquire the most suitable sites according to the criteria given above. **(DEIR at 1-6; 5-3)**. Furthermore, the environmental impacts for Projects 1-6 can all be mitigated to below a level of significance.

4.4 ALTERNATIVE 4: ROOFTOP SOLAR GENERATION

Description:

Under the Rooftop Solar Generation Alternative, solar photovoltaic panels would be installed on private rooftops.

Finding:

The Rooftop Solar Generation Alternative is rejected as infeasible, because the Project Applicant does not have the ability to install solar panels on private rooftops.

Facts Supporting the Finding:

For rooftop solar to be a viable alternative to the proposed Projects it would need to provide 172 MW of electricity into the local grid. Assuming one residential installation can produce 25 kilowatts of electricity, a total of 6,880 residential installations would be needed to produce 172 MW of electricity. The Applicant does not have the ability to install solar panels on private rooftops; therefore this alternative is not feasible for the Applicant. **(DEIR at 5-3)**.

4.5 ALTERNATIVE 5: WIND ENERGY GENERATION

Description:

Under the Wind Energy Generation Alternative, electricity would be generated through the use of wind turbines.

Finding:

The Wind Energy Generation Alternative is rejected as infeasible, because the type of geographical location that is suitable for a wind farm is not available within the vicinity.

Facts Supporting the Finding:

For wind energy generation to be a reasonable alternative to the proposed Projects and meet the purpose and need of the proposed Projects, it would need to provide 172 MW of electricity into the local grid; and to be sited on previously disturbed land that utilizes existing electrical distribution facilities, ROWs, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities. The area required for construction and operation of a 172 MW wind farm would require a much more specific type of geographical location than the

Projects to provide adequate wind; a feasible project area of the nature required for wind electricity production is not readily available within the area of analysis for the proposed Projects. For this reason, this alternative is infeasible. **(DEIR at 5-3)**.

SECTION 5.0 FINDINDS REGARDING THE MITIGATION MONITORING AND REPORTING PROGRAM ("MMRP")

Pursuant to Section 21081.6 of the Public Resources Code, the Commission, in adopting these Findings, also adopts the MMRP for the Silverado Power West Los Angeles Project. This Program is designed to ensure that, during Project implementation, the County and other responsible parties will comply with the mitigation measures adopted in these Findings.

The Commission hereby finds that the MMRP, which is incorporated herein by reference and attached as Exhibit A to these Findings, meets the requirements of Public Resources Code Section 21081.6 by providing for the implementation and monitoring of Project conditions intended to mitigate potential environmental effects of the Project.

SECTION 6.0 CEQA GUIDELINES SECTION 15091 AND 15092 FINDINGS

Based on the foregoing findings and the information contained in the administrative record, the Commission has made one or more of the following findings with respect to each of the significant effects of the Project:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Based on the foregoing findings and the information contained in the administrative record, and as conditioned by the foregoing:

A. All significant effects on the environment due to the Project have been eliminated or substantially lessened where feasible.

SECTION 7.0 CEQA GUIDELINES SECTION 15084(D)(3) AND 15084(D)(4) FINDINGS

The County has relied on Sections 15084(d)(3) of the State CEQA guidelines, which allow acceptance of working drafts prepared by the Applicant, a consultant retained by the Applicant, or any other person. The County has also relied upon Section 15084(d)(4), which allows the Draft EIR to be prepared directly by, or under contract by the lead agency. The County has reviewed and edited as necessary the submitted drafts to reflect the County's own independent judgment, including reliance on County technical personnel from other departments.

SECTION 8.0 PUBLIC RESOURCES CODE SECTION 21082.1(C) FINDINGS

Pursuant to Public Resources Code Section 21082.1(c), the Commission hereby finds that the lead agency has independently reviewed and analyzed the Final EIR, and that the Final EIR reflects the independent judgment of the lead agency.

SECTION 9.0 NATURE OF FINDINGS

Any finding made by this Commission shall be deemed made, regardless of where it appears in this document. All of the language included in this document constitutes findings by this Commission, whether or not any particular sentence or clause includes a statement to that effect. This Commission intends that these Findings be considered as an integrated whole and, whether or not any part of these Findings fail to cross reference or incorporate by reference any other part of these findings, that any finding required or committed to be made by this Commission with respect to any particular subject matter of the Final EIR, shall be deemed to be made if it appears in any portion of these Findings.

SECTION 10.0 RELIANCE ON RECORD

Each and all of the findings and determinations contained herein are based on the competent and substantial evidence, both oral and written, contained in the entire administrative record relating to the Silverado Power West Los Angeles County Project. The findings and determinations constitute the independent findings and determinations of this Commission in all respects, and are fully and completely supported by substantial evidence in the record as a whole.

SECTION 11.0 RELATIONSHIP OF FINDINGS TO EIR

The County finds and declares that substantial evidence for each and every finding made herein is contained in the EIR or is in the record of proceedings in the matter.

SECTION 12.0 CUSTODIAN OF RECORDS

The custodian of the documents or other material which constitute the record of proceedings upon which the County's decision is based is the Los Angeles County Department of Regional Planning located at 320 West Temple Street, Los Angeles, California 90012.

EXHIBIT A
MITIGATION MONITORING AND REPORTING PROGRAM
(“MMRP”)

CEQA requires a Mitigation Monitoring and Reporting Program (MMRP) for projects where mitigation measures are a condition of project approval and development. The Draft EIR prepared for the Silverado Power West, Los Angeles County Projects identified mitigation measures, where appropriate, to avoid or substantially reduce the environmental impacts associated with the Project. This MMRP is designed to monitor the implementation of those mitigation measures. Accordingly, this MMRP has been prepared in compliance with the requirements of CEQA Section 21081.6 and CEQA Guidelines Section 15097.

This section lists each of the proposed Project Design Features (PDFs) and required Mitigation Measures (MMs) and identifies the corresponding action required for proof of compliance, the mitigation timing, the party responsible for implementation, and the monitoring agency or party responsible for ensuring each measure is adequately implemented.

Mitigation Monitoring and Reporting Program
Silverado Power West, Los Angeles County Projects
Project Nos. R2011-00833, 00798, 00799, 00807, 00801, 00805
March 2014

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.1 AESTHETICS				
A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.	A. Submit Plan to AVAQMD for review and approval	Prior to any ground disturbance activities	Applicant/Construction Manager	LACDRP AVAQMD
	B. Maintain log demonstrating compliance. Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD
A-2 The Project site shall be maintained free of debris, trash, and waste during construction.	Site inspection	During construction	Applicant	LACDRP
A-3 The Project site shall be visually screened or partially screened during construction by fencing.	A. Submit Site Plans for review and approval	Prior to issuance of applicable building permit	Applicant	LACDRP
	B. Site inspection as needed	During construction	Applicant	LACDRP
A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.	A. Submit landscape plan for review and approval. The landscape plan must be approved prior to grading or building permit.	Prior to 1st grading or building permit whichever comes first for each project.	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
	B. Implement approved landscape plan	Prior to first energization approval by LADPW B & S	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on essential infrastructure rather than on separate light poles	Submit final lighting plan for review and approval	Prior to issuance of building permit(s)	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.				
5.2 AGRICULTURE AND FORESTRY				
No mitigation measures are required for Agriculture and Forestry.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.3 AIR QUALITY				
AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVQMD
AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of CVC Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Submit Transportation Demand Management program for review and approval	Prior to issuance of building permits	Applicant/Construction Manager	LACDRP LACDPW support and referral for trip reduction determination

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation, to the greatest extent feasible, approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager/Biologist	LACFD LACDRP
AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP AVAQMD
AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.4 BIOLOGICAL RESOURCES				
B-1 Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess	A. Retain qualified Biologist(s)	Prior to issuance of Grading Permit	Applicant/Construction Monitor	LACDRP CDFW
	B. Field Surveys	Prior to grading permit	Applicant	LACDRP CDFW
	C. Maintain daily monitoring reports	During Construction	Applicant/Construction Monitor	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to DRP and CDFW at their request.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-2 Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below. • Pre-survey information gathering will include reviewing of all available agency nest data and mapping. • A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted. • Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds. • A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to	Pre-construction surveys for special-status species that have been identified as having potential to occur on site	Prior to grading or as specified per species	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012). If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals. Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand excavated and collapsed under the supervision of the avian biologist. Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals. • Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.				
B-3 During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or	Biological Monitoring	During construction	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-4 Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily. <u>Swainson's hawk</u>: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity. The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats: Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows: • A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed Significant Ecological Area (SEA). • A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat; • A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat. <u>Burrowing Owl</u>: Mitigation for any occupied burrowing owl burrows found during pre-construction surveys will include a comprehensive tiered approach: • Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;	A. Acquire mitigation lands for Swainson's Hawk	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	B. Acquire mitigation lands for Burrowing Owl	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	C. Pre-construction survey for Alkali Mariposa Lilies	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	D. If necessary Acquire Alkali Mariposa Mitigation land	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
• Disturbance avoidance of occupied burrows during nesting period February 1 – August 31; • Impact avoidance of occupied burrows; • Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW). • Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback). • Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project. <u>Alkali Mariposa Lily</u>: Alkali mariposa lily will be avoided to the greatest extent possible. If pre-construction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable. For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-5 Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria: <u>Habitat Management Land Selection Criteria</u>: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired. Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred. <u>Habitat Management Lands Acquisition</u>: Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW. The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s)	A. Obtain approval of habitat management lands	Prior to Acquisition	Applicant	LACDRP CDFW
	B. Record a permanent deed restriction or conservation easement on mitigation land(s)	Within 45 days of acquiring land(s)	Applicant	LACDRP CDFW
	C. Establish fund in the amount acceptable to LACDRP and CDFW for restoration, enhancement, and maintenance of the mitigation lands	Within 90-days of mitigation land(s) acquisition	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
acquisition in an amount acceptable to the LACDRP and CDFW.				
Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the applicant shall provide a proposed date of purchase which coincides with construction of the facility.				
B-6 Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.	Enter into an agreement with CDFW pursuant to sections 1601 through 1603	Prior to alteration of Streambed	Applicant	CDFW
B-7 Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads as follows: Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.	Revegetation of interior site, excluding interior roads	After construction	Applicant	LACDRP
5.5 CULTURAL RESOURCES				
CUL-1 In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist, in consultation with the Native American Monirot shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources	A. Archaeological monitoring and Native American monitor when there is a find	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP NAHC
	B. Maintain log demonstrating compliance	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During earthmoving activities	Applicant/Construction Manager/Qualified	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.			Archaeologist	
CUL-2 In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.	A. Archaeological and Native American monitoring	During construction	Applicant/Construction Manager/Qualified Archaeologist/NAHC representative	LACDRP NAHC
	B. Maintain documentation demonstrating compliance	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-3 Project 4 construction of gen-tie lines shall maintain the right of way buffer zones prescribed by SCE for this historic electric transmission line resource, which is an active transmission line. This Mitigation Measure shall apply to Project 4 only.	Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-4 Project construction for Project 4 shall maintain a one acre undisturbed area surrounding the Del Sur Cemetery	A. Submit pre-construction surveys	Prior to construction	Applicant/Qualified Archaeologist	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
site. This Mitigation Measure shall apply to Project 4 only.	B. Construction monitoring by qualified Archaeologist	During construction	Applicant/Qualified Archaeologist	LACDRP
	C. Submit construction monitoring documentation	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
	D. Site inspection as needed	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
CUL-5 A County approved archaeologist will be retained to initiate and supervise cultural resource monitoring during Project related earthwork in areas of the Project that are within 50 feet from certain significant cultural resources, specifically from the defined perimeter of site CA-LAN-1579H (Project 4). If resources are identified, the procedures outlined in CUL-1 will be followed and/or CUL-2 (as necessary). This Mitigation Measure shall apply to Project 4 only.	A. Archaeological monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	B. Maintain log demonstrating compliance	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. A The paleontologist shall develop and execute a Paleontological Resource Mitigation and Monitoring Program and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment according to the Program.	Paleontological Monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Paleontologist	LACDRP LAC Natural History Museum support/referral
5.6 GEOLOGY AND SOILS				
No mitigation measures are required for Geology and Soils.	N/A	N/A	N/A	N/A
5.7 GREENHOUSE GAS EMISSIONS				
GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment	A. Submit operating permit(s) as required	Prior to commencement of construction	Applicant	AVAQMD LACDRP
	B. Maintain log	During construction	Applicant/Construction	AVAQMD

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	demonstrating compliance		Manager	LACDRP
GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-3 The off-road construction equipment drivers shall have proper training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-4 Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.	Site inspection as needed	During construction and grading	Applicant/Construction Manager	AVAQMD LACDRP
GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Maintain log demonstrating compliance	Prior to Building Permit	Applicant/Construction Manager	AVAQMD LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.8 HAZARDS/HAZARDOUS WASTES				
HH-1 Prior to the start of construction activities, a Hazardous Materials Management Plan shall be implemented for each project.	Submit Hazardous Materials Management Plan	Prior to start of construction	Applicant	DTSC
HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.	Submit Hazardous Waste Management Plan for each Project	Prior to start of construction	Applicant	DTSC
HH-3 Prior to the start of construction activities on the parcel containing the historic UST at the location of Project 1, a Phase I ESA will be completed. This mitigation measure only applies to Project 1.	Phase I ESA	Prior to issuance of grading permit(s)	Applicant	LACDRP
HH-4 Prior to the start of construction activities, a closure permit for the UST will be verified or obtained from the Los Angeles County Fire Department, Health Hazardous Materials Division. This mitigation measure only applies to Project 1.	Closure permit or verification for UST – Project 1 site	Prior to issuance of grading permit(s)	Applicant	LACFD
HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated	Testing of soil contamination	Prior to start of construction	Applicant	DTSC LACDRP
5.9 HYDROLOGY/WATER QUALITY				
Construction				
HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be	Maintain log demonstrating compliance of Educational materials and training for Property Owners, Tenants, Occupants, and Employee	During Construction	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
available at each project site and a log kept to show education has occurred prior to the start of construction.				
HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit spill contingency plan	Prior to grading permit	Applicant	LACDRP
HYDRO-3 No hazardous materials are anticipated to be stored on-site. If deemed otherwise, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Maintain log demonstrating compliance	During construction and operations	Applicant/Construction Manager	LACFD
HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance of the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit all applicable information	Prior to grading permit	Applicant	LACFD
Operation				
HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often if containers approach overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area/room is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.	A. Include waste collection and disposal methods in construction contract specifications	During operation	Applicant	LACSD LACDRP
	B. Maintain log demonstrating compliance	During operation	Applicant	LACSD LACDRP
5.10 LAND USE AND PLANNING				
No mitigation measures are required for Land Use and Planning	N/A	N/A	N/A	N/A
5.11 NOISE				
N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise	Maintain log of construction equipment arrivals and exit times demonstrating	During construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.	compliance			
N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
	B. Inclusion of requirement for a Noise Control Plan	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest NSR are predicted to be above the County construction noise limit of 60 dBA during the day.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
	B. Site inspection as needed	During Construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-8** Siting substations to achieve NEMA sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project: • Project 1 – 325 feet with a NEMA sound rating of 74 dBA • Project 2 – 1,511 feet with a NEMA sound rating of 81 dBA • Project 3 – 650 feet with a NEMA sound rating of 74 dBA • Project 4 (two transformers) – 1,000 feet with a NEMA sound rating of 77 dBA • Project 5 – 748 feet with a NEMA sound rating of 82 dBA	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-9** The Applicant shall choose to use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
5.12 PUBLIC SERVICES				
No mitigation measures are required for Public Services	N/A	N/A	N/A	N/A
5.13 TRANSPORTATION/TRAFFIC				
TT-1 Prior to issuance of first grading or building permit, Applicant shall document and submit all required information	Submit Projects' road survey	Prior to issuance of first grading or building	Applicant	LACDPW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.		permit		
TT-2 The County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-00798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.	Provide street closure notifications	Three days prior to any street closures impacting fire and/or paramedics	Applicant/Construction Manager	LACFD
TT-3 Stagger construction work shifts before or after peak traffic hours.	A. Maintain log demonstrating compliance	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
	B. Site inspection as needed	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
TT-4 Schedule truck deliveries during off peak hours.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-5 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-6 Encourage carpooling between construction works.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.14 UTILITIES				
No mitigation measures are required for Utilities.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
List of Acronyms: B & S – building and safety BMP – Best Management Practice CEQA – California Environmental Quality Act CASQA – California Association of Stormwater Quality Agencies CBC – California Building Code CDFW – California Department of Fish and Wildlife CUP – Conditional Use Permit CVC – California Vehicle Code dBA – decibels (acoustics) DPR – Department of Parks and Recreation ESA – Environmental Site Assessment hp – Horsepower LACDPW – Los Angeles County Department of Public Works LACFD – Los Angeles County Fire Department mph – miles per hour NEMA – National Electrical Manufacturers Association OSHA – Occupational Safety and Health Administration PRC – Public Resources Code ROW – Right of Way SCE – Southern California Edison SWPPP – Stormwater Pollution Prevention Plan UFC – Uniform Fire Code UST – Underground Storage Tank WATCH – Work Area Traffic Control Handbook LACDPH – Los Angeles County Department of Public Health LACSD – Los Angeles County Sanitation District				

FINDINGS OF FACT REGARDING THE ENVIRONMENTAL IMPACT REPORT

FOR THE SILVERADO POWER WEST LOS ANGELES COUNTY PROJECT

PROJECT SITE NO. 4 (Antelope Solar Greenworks)

COUNTY PROJECT NO. R2011-00807-(5)

CONDITIONAL USE PERMIT NO. 201100076

ENVIRONMENTAL ASSESSMENT NO. 201100109

STATE CLEARINGHOUSE NO. 2012061068

PROJECT FINDINGS ORGANIZATION

Section 1	Introduction
Section 2	Findings Regarding Potential Environmental Effects Which Are Not Significant or Which Have Been Mitigated to a Less than Significant Level
Section 3	Findings Regarding Cumulative Environmental Effects Which are Not Significant or Which Have Been Mitigated to a Less Than Significant Level
Section 4	Findings Regarding Project Alternatives
Section 5	Findings Regarding the Mitigation Monitoring and Reporting Program
Section 6	CEQA Guidelines Section 15091 and 15092 Findings
Section 7	CEQA Guidelines Section 15084(D)(3) and 15084(D)(4) Findings
Section 8	Public Resources Code Section 21082.1(C) Findings
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Exhibit A	Mitigation Monitoring and Reporting Program ("MMRP")

SECTION 1.0 INTRODUCTION

The County of Los Angeles ("County") Regional Planning Commission ("Commission") hereby certifies and finds that the Silverado Power West Los Angeles County ("Project") Final Environmental Impact Report ("Final EIR"), State Clearinghouse Number 2012061068, has been completed in compliance with the California Environmental Quality Act (Public Resources Code Sections 21000 et seq., "CEQA") and the State CEQA Guidelines (Title 14, Cal. Code Regs. Sections 15000 et seq., "CEQA Guidelines").

The Project Final EIR consists of the following documents: (1) December 2013 Draft Environmental Impact Report ("Draft EIR" or "DEIR"); (2) December 2013 Technical Appendices to the Draft EIR; and (3) March 2014 Final EIR.

The Commission hereby further certifies that it received, reviewed and considered the information contained in the following: (i) the Final EIR; (ii) the application for Conditional Use Permit No. 201100076; and (iii) all hearings, and submissions of testimony from County officials and departments, the Applicant (as defined herein), the public, other public agencies, community groups, and organizations.

Concurrently with the adoption of these findings, the Commission adopts a Mitigation Monitoring and Reporting Program ("MMRP"), attached hereto as Exhibit A. Having received, reviewed and considered the foregoing information, as well as any and all information in the administrative record and the record of proceedings, the Commission hereby makes the following Findings of Fact ("Findings") pursuant to and in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15090:

SECTION 1.1 PROJECT BACKGROUND

1.1.1 Project Location.

The Project site is located in the northern portion of unincorporated Los Angeles County. The EIR analyzed a total of six (6) individual Project sites (collectively, "Projects" or "Projects 1-6"), which will each be subject to separate review and approval by the County.[1]

These Findings specifically pertain to "Project 4", which is approximately 256 acres and located at 97th Street West and West Avenue I, in Lancaster, California. The Assessor's Parcel Numbers ("APNs") for Project 4 are 3218-002-018, 3218-002-023, 3203-002-015, 3203-002-017, 3218-001-002, 3218-001-003, 3218-001-004, 3203-002-011, 3203-002-012, 3203-002-013, 3203-002-014, and 3219-019-011. When complete, Project 4 would produce 52 megawatts ("MW") of electricity from solar photovoltaic modules.

[1] The six individual Projects are not dependent upon each other for success. Each Project can succeed as a stand-alone project if other projects are not approved by Los Angeles County or if technical or financial problems delay or block the completion of a Project. CEQA allows for a group of projects to be analyzed as a single EIR; each Project must also receive approval of its CUP application and other entitlements on the merits of the individual Project and individual site.

1.1.2 Project Description—Features Common to Projects 1 - 6.

There are certain general Project characteristics and features that will apply to each of the individual six Project sites, including Project 4, as follows:

All six of the Projects would be designed and built using the same or similar methods and would have similar Project characteristics. The Projects would utilize photovoltaic ("PV") technology on fixed-tilt or tracker mounting supports. The proposed PV Projects would be constructed in phases and operated for an estimated 35 years. Construction would generally take place during normal daylight hours and would conform to County construction requirements.

Each Project would consist of the following elements:

- PV modules;
- PV module mounting system;
- Balance of system and electrical boxes (e.g., combiner boxes, electrical disconnects);
- Substation (Projects 1 – 5);
- Electrical inverters and transformers;
- Electrical AC collection system, including switchgear;
- Data monitoring equipment;
- Generation tie line; and
- Access roads and chain link perimeter security fencing.

<u>Solar PV Generating Facilities</u>

The Solar Generating Facilities ("SGFs") are designed for optimum performance and ease of maintenance. The Projects would consist of a series of PV module arrays mounted on racking systems, which are typically supported by a pile-driven foundation design. The foundation design would be determined based on the full geotechnical survey. The module mounting system, or racking system, would have a fixed-tilt or tracker PV array configuration and would be oriented south to maximize the amount of incident solar radiation absorbed over the course of the year. Electricity from a series of PV arrays would be funneled and combined at combiner boxes located throughout the SGF. The electrical current would then be further collected and combined prior to feeding the inverters. The SGF would be laid out in a PV block design to allow adequate area for maintenance in the way of clearances or access roads.

Inverters would be consolidated in areas to minimize cable routing and trenching and ensure minimal electrical losses. The alternating current ("AC") from the inverters would be routed through an AC collection system and consolidated within system switchgear. The final output from the SGF would be processed through a transformer to match the interconnection voltage. Electrical safety and protection systems would be provided to meet utility, International Organization for Standardization, and regulatory codes and standards. The energy would be

delivered to the regional electrical distribution network. A security perimeter fence with appropriate signage for public protection would be installed. Points of ingress/egress would be accessed by locked gates for facility services and maintenance.

Photovoltaic Modules

The SGFs would require installation of PV modules. The total number of PV modules required would depend on the technology selected, optimization evaluation, and detailed design. The market conditions, economic considerations, and the environmental factors would be taken into account during the detail design process. The following PV module technologies or equivalent are being considered for incorporation into the Projects:

- PV thin-film technology
- PV crystalline silicon technology
- Fixed-tilt configuration; and
- Tracking design configuration.

The modules configured with a fixed tilt would be oriented toward the south and angled at a degree that would optimize solar resource efficiency. For the tracking configuration, the modules would rotate from east to west over the course of the day. Modules would be non-reflective and highly absorptive.

Standard Installation, Array Assembly, and Racking

The final racking system would be determined by optimization evaluations and economic assessments and incorporated into the detailed design. Likewise, the final foundation design would be determined based on the geotechnical survey for each of the PV Project locations. Once the foundation has been installed, the module mounting system would be installed on it. For a tracking configuration, motors would be installed to drive the tracking mechanism. The PV modules would be delivered to each site during construction to support the installation schedule. The module mounting system would be oriented in rows within a PV design block, presenting a standard and uniform appearance across the facility. The panel configuration would be uniform in height and width.

Collection, Inverters, AC Collection, and Transformers

Modules would be electrically connected into strings. Each string would be funneled by electrical conduit (typically underground) wiring to combiner boxes located throughout the solar field power blocks. The output power cables from the combiner boxes would be again consolidated and feed the direct current ("DC") electricity to inverters, which convert the DC to AC. Underground electrical cables would be installed using ordinary trenching techniques, which include excavation of trenches to accommodate conduits. Wire depth and trench backfill would be in accordance with local, state, and federal codes.

The AC energy would be stepped up to the appropriate interconnection voltage by system transformers to match the voltage at the grid interconnection. As required, switchgear cabinetry

would be provided where necessary for circuit control. All electrical inverters, transformers, and gear would be placed on concrete foundation structures.

Commissioning of equipment would include testing, calibration of equipment, and troubleshooting. All electrical equipment, inverters, collector system, and PV array systems would be tested prior to commencement of commercial operations.

Substations

For Projects 1, 2, 3, 4, and 5, which require substations, the area for the substations would be appropriately graded and excavated to accommodate transformer equipment, the control building foundation, and oil containment area. Foundations for equipment within each approximately 1-acre substation would be constructed with reinforced concrete.

Structural components in the Project substation area would include:

- Transformers, switchgear, and safety systems; and
- Footings and oil containment system for transformers.

Interconnection Descriptions

Each inverter would be fully enclosed and pad mounted and would be approximately 90 inches in height. The AC output of two inverters would be fed via underground cable into the low-voltage side of the inverter step-up transformer, generally within 20 feet of the inverters. Each transformer would be mounted on a concrete pad and enclosed together with switchgear and a junction box. Transformers are typically 87 inches in height. The high-voltage output of the transformer would be combined in series via underground collector cables to the junction box of the nearest transformer, ranging from as little as 60 feet to as much as 700 feet. The collector system cables would be tied throughout the SGF at underground junction boxes to the main underground collector cables, which would be composed of a larger wire gauge, to the location of the generator step-up transformer ("GSU"), as applicable at each Project location. The main collector cables would rise into the low-voltage busbar and protection equipment that would be enclosed together with the GSU. The primary switchgear includes the main circuit breaker and utility metering equipment, and it would be enclosed separately but pad-mounted together with the GSU. Both the GSU and the primary switchgear would stand approximately 87 inches in height.

The output of the switchgear would be the start of the Project generation tie ("gen-tie") line. The connections from the SGFs to the regional transmission lines are made through the construction of gen-tie lines. Los Angeles County requires that all gen-tie lines be underground except when other applicable regulations require otherwise, and Projects 1 − 6 are each designed in this manner. Each gen-tie line would consist of three phases of either underground or overhead conductor and a disconnect switch. The overhead conductor would be mounted on either wooden or tubular steel poles of varying heights ranging from 55 to 85 feet. Pole height would be determined by the span between poles as defined in the final design for each Project.

Data Collection Systems

Each Project would be designed with a comprehensive Supervisory Control and Data Acquisition ("SCADA") system for remote monitoring of facility operation and/or remote control of critical components. Within the site, the fiber optic or other cabling required for the monitoring system, would be installed with the gathering line system throughout the solar field leading to a centrally located (or series of appropriately located) SCADA system cabinets. The external telecommunications connections to the SCADA system cabinets may be through either wireless or hard-wired telecommunications to a centralized data collection center.

The system would also include a permanent meteorological data collection system. The station would have several weather sensors: a pyranometer for measuring solar irradiance, a thermometer to measure air temperature, a barometric pressure sensor, and two wind sensors to measure speed and direction. These sensors would be connected to a data logger, which would compile the data for transmission to the data collection center.

Construction

Construction for each of the six Project facilities consists of three major phases: (1) site preparation, (2) PV system installation testing and startup, and (3) site cleanup/restoration. Best Management Practices ("BMPs") would be required during all construction phases of the Projects. A Storm Water Pollution Prevention Plan ("SWPPP") incorporating BMPs for erosion control would be prepared and approved before the start of construction. The Projects would also comply with applicable post-construction water quality standards adopted by the Regional Water Quality Control Board ("RWQCB").

PV System Installation

PV system installation includes earthwork, grading, and erosion control, as well as construction of the plant substation and erection of the PV modules, supports, and associated electrical equipment. System installation would begin with teams installing the steel/concrete piers support structures. The exact design would be finalized pending evaluation of soil conditions.

The proposed method of installation would be the use of vibration-driven pile foundations. This step would be followed by panel installation and electrical work. A very limited volume of concrete would be required for the substation footings, foundations, pads for the transformers, and other substation equipment. Silverado Power, LLC ("Applicant") does not propose to use excavated and poured footings or foundations for the PV arrays. Concrete would be produced at an off-site location by a local provider and transported to the Project sites by truck.

The enclosures housing the inverters have a pre-cast concrete base. Final concrete specifications would be determined during detailed design engineering consistent with applicable building codes. The primary site preparation method for the PV modules would be mowing, because the majority of the six sites are very flat with little change in topography. However, there may be a few instances where limited earthwork, including ponding area leveling of less than one foot in depth, and erosion control cultivation may be required to accommodate the placement of PV arrays. Other than required grading for roads, pads, and drainage features, and standard

trenching and installation work, no other earthwork would be performed within the array areas. Erosion control techniques used during construction may include the use of silt fencing, straw bales, temporary catch basins, inlet filters, and truck tire muck shakers. Construction of the PV arrays includes the installation of support beams, module rail assemblies, PV modules, inverters, transformers, and buried electrical cables.

Wastes generated during construction may include the following: cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spools. The Applicant does not expect to generate hazardous waste during construction. However, field equipment used during construction would contain various hazardous materials such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles.

Operations & Maintenance

Upon commissioning, the Projects would enter the operational phase. For the duration of the operational phase, the Projects would be operated and monitored remotely by a third party contractor, with an assumed two on-site visits for security, maintenance, and system monitoring per quarter (total of eight trips per year) by two third party employees in one light duty truck, and two on-site visits by four third party employees for biannual panel washing that includes one light duty truck and one water truck. Therefore the trips would be no more than 10 trips annually for security, maintenance, system monitoring and panel washing. There would be no personnel stationed on-site full time during operations. The PV arrays would produce electricity passively with minimal moving parts; therefore, maintenance requirements would be limited. Any required planned maintenance would be scheduled to avoid peak-load periods, and unplanned maintenance would typically be responded to as needed depending on the event.

Security

To ensure the safety of the public and the facilities, the sites would be fenced and signs would be posted. Security measures would be installed as necessary to mitigate and/or deter unauthorized access. Access to the sites would be controlled and gates would be installed at the roads entering the property.

Decommissioning Plan

A Decommissioning Plan for each of the Projects would be prepared and submitted for approval to Los Angeles County prior to obtaining a grading permit. The plan would assure that the land is protected during operations and returned as closely as possible to its original state upon termination of the use of the land as a SGF. It is unknown at this time if solar energy electricity production would continue to be utilized on this land in excess of 35 years, and thus the future long-term use of the site beyond 35 years is unknown. The life of each facility is presently proposed to be 35 years. The Decommissioning Plan would be implemented in the early summer of the year or year following the time of facility closure thus allowing the site reclamation to be completed outside of the rainy season and before winter begins. In the event that a Project ceases

operations prior to completion of the 35-year estimated life of the Project, applicable provisions of the Decommissioning Plan would commence.

Section 1.1.3 Project Description—Features Unique to Project Site 4

Project 4 (Antelope Solar Greenworks) would have a generating capacity of 52 MW-AC and would be located on 256 acres of primarily unproductive agricultural land in unincorporated northern Los Angeles County. Project 4 would operate year-round, producing electric power during daytime hours.

The power generated by Project 4 would interconnect to the existing SCE transmission and distribution lines with the voltage transformation equipment and system safety equipment constructed on the site. Project 4 would have four separate points of interconnection ("POI"). For the first POI, the gen-tie line would cross West Avenue J underground to the SCE 66 kV transmission line running east-west on the south side of the road. The second POI would be reached by the gen-tie line crossing 90th Street West underground to the SCE 12.47 kV distribution line running north-south on the east side of the road. The third POI gen-tie line would connect to the existing SCE 66 kV transmission line located on-site near the NE corner of 97th Street West and Lancaster Boulevard. The fourth POI would tie into the existing SCE 12.47 kV distribution line located adjacent to the Project 4 site on the north side of West Avenue I.

Project 4 Telecommunications Lines

The primary telecommunication method for Project 4 is expected to be direct fiber optic cables placed overhead or underground along the path of the gen-tie line within the public ROW or located on private land, extending from the Project 4 site to existing or proposed telecommunication infrastructure. A dedicated broadband connection from a local provider will be secured at the site.

Project 4 Construction

Project 4 would be constructed in two phases. Construction of the site, beginning with site preparation and grading through equipment setup and commencement of commercial operation, is expected to last approximately four months for Phase 1 and nine months for Phase 2, with Project 4 being commercially operational by the end of the fourth quarter of 2014. The on-site workforce would consist of laborers, electricians, supervisory personnel, support personnel, and construction management personnel. Construction would generally occur during daylight hours, Monday through Friday. Construction activities would be conducted consistent with Los Angeles County regulations regarding hours of construction. Project 4 is expected to create 160 new jobs at peak crew size during the construction phase.

The expected construction water use for the Project is 155 acre feet, which would be trucked to this site from a private provider of out-of-Basin or other authorized water. Construction water needs would be limited to soil conditioning and dust suppression. Potable water would be brought to the Project 4 site for drinking and domestic needs.

Project 4 Operations

No personnel would be stationed at the facility, and no occupied structures would be built on the site. Full and part-time positions over the life of the Project would be required for periodic operation and maintenance activities, and would be performed by a third-party contractor. Operational water requirements for Project 4 would be 7.6 acre feet per year ("AFY").

Section 1.1.4 Discretionary Actions Required for Project 4

Implementation of Project 4 will require the following discretionary approval action by the County:

- **Conditional Use Permit ("CUP")**: To authorize the construction and operation of a solar photovoltaic electricity generating plant on 256 acres and installation of a water tank in the A-2-2 Zone. The project meets the definition of "electric generating plant" in the Los Angeles County Zoning Code. Pursuant to Section 22.24.150, electric generating plants are a use subject to a conditional use permit in the A-2 Zone.

Section 1.1.5 Statement of Project Objectives

Together, proposed Projects 1 – 6 would meet the existing and future demand for electricity generated from clean, renewable technology by generating 172 MW of electrical energy from the sun. Recent legislation enacted in California recognizes the multiple benefits associated with the development of renewable energy resources. These benefits include a reduced reliance on fossil fuel, diversification of energy portfolios, reductions in greenhouse gas ("GHG") emissions, and the creation of "green" jobs within the state of California. Additionally, the Projects would assist California in meeting the newly established Renewable Energy Portfolio Standards ("RPS"). Senate Bill 14 established RPS targets for California, stating: "All retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." State government agencies have been directed to take all appropriate actions to implement this target in all regulatory proceedings, including siting, permitting, and procurement for renewable energy power plants and transmission lines.

Each of the six proposed PV Project sites, including Project 4, qualify as eligible renewable energy resources as defined by the California Public Resources Code, and would help the State meet the objective of increasing renewable energy generation. In addition, Projects 1-6 would contribute much-needed competitive energy during peak power periods to the electrical grid in California.

As another key objective, Projects 1-6 have each been sited to minimize impacts to the environment and the local community as follows:

- Using disturbed land or land that has been previously degraded from prior use;
- Using existing electrical distribution facilities, rights-of-way, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities; and

- Minimizing impacts to threatened or endangered species or their habitats, wetlands and waters of the United States, cultural resources, and sensitive land uses.

SECTION 1.2 ENVIRONMENTAL IMPACT REPORT PROCESS

In accordance with State CEQA Guidelines Section 15063, the County completed an Initial Study (June 13, 2012) for the proposed Project, and determined that an Environmental Impact Report ("EIR") was required. A Notice of Preparation ("NOP"), including the Initial Study was circulated to the Governor's Office of Planning and Research, responsible, trustee, and interested agencies, and key interest groups beginning June 20, 2012 to solicit comments on the proposed content of the Draft EIR. The NOP was circulated for the required 30-day comment period which ended July 20, 2012. A Scoping Meeting was held on July 14, 2012 at the Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, to facilitate public review and comment on the Project.

The Draft EIR includes the Initial Study, the comment letters received during the public review period in response to the NOP, and a transcript of verbal comments received during the Scoping Meeting (see Draft EIR Appendix A-1 to A-5). All NOP comments relating to the EIR were reviewed and the issues raised in those comments were addressed, to the extent feasible, in the Draft EIR.

Potentially significant environmental impacts addressed in the Draft EIR include Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems. The Draft EIR analyzed both Project-level and cumulative effects of the Project on these topics and identified a variety of mitigation measures to minimize, reduce, avoid, or compensate for the potential adverse effects of the proposed Project.

The Draft EIR also analyzed five potential alternatives to the proposed Project, including: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites; 4) Rooftop Solar Generation; and 5) Wind Energy Generation. Potential environmental impacts of each of these alternatives were discussed at the CEQA-prescribed level of detail and comparisons were made to the proposed Project.

The Initial Study determined that the Project would result in less than significant or no impact to several environmental resource areas:

1) **Mineral Resources**: The Project would not have the potential to result in the loss of availability of a known mineral resource of value to the region, including those identified in a local general plan, specific plan, or other land use plan.

2) **Employment, Population & Housing**: The Project would provide significant short-term employment for construction workers during the two year construction period. The

duration of construction for the Projects would be less than two years; and construction personnel would commute to the Projects from Lancaster, the Los Angeles areas, and Kern County. However, jobs would be temporary and would be for the two year construction period. Construction workers would not establish new households and are not anticipated to permanently relocate to the area. Additionally, adequate construction personnel presently living in Los Angeles and Kern County would fill all of the jobs that will be available. Area population, housing demands and the need for educational facilities and libraries would not be affected significantly because jobs that would be created are short term in nature; therefore, they would not be impacted by the Projects. Employment, Population, and Housing would not be impacted because the Projects do not require a significant number of personnel to operate them once they are built and producing electricity, and they do not have growth inducing impacts to the local community. Requirements for operations and maintenance are not significant and would be conducted by a few specialized contracted third-party personnel who will cover the Projects. There is no operations and maintenance building on any of the Projects 1-6.

3) **Recreation**: The Project would have no impact on recreation opportunities in the area. There are adequate recreation opportunities in the area, and the availability of these would not change as a result of the Project.

Following the Los Angeles County Department of Regional Planning ("LACDRP") internal departmental review and analysis of the proposed Project through the screencheck process, the Draft EIR was submitted to the State Clearinghouse, Governor's Office of Planning and Research, and circulated for public review period beginning January 6, 2014. The 45-day public review period required by State CEQA Guidelines Section 15087 ended on February 19, 2014.
A public hearing was held before the County's Hearing Examiner to take public testimony on the Draft EIR, at Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, held at 1:00 p.m. on February 1, 2014. Approximately 80 people attended the Hearing Examiner meeting, and 26 attendees provided oral comments on the Draft EIR. A transcript of the oral comments made at the Hearing Examiner Meeting is contained in Section 2.0 of the Final EIR.

SECTION 1.3 PROJECT FINDINGS INTRODUCTION

The Findings made by the County, pursuant to Section 21081 of CEQA, and Section 15091 of the State CEQA Guidelines, on the consideration of Project 4 of the Silverado Power West Los Angeles County Project in unincorporated Los Angeles County, California are presented below. All potentially significant impacts of the Project identified in the Final EIR are included herein, and are organized according to the resources affected.

The Findings in this document are for Project 4 of the Silverado Power West Los Angeles County Project, and are supported by information and analysis from the Final EIR and other evidence in the administrative record.

For each significant impact, a Finding has been made as to one or more of the following, in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15091:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

A narrative of supporting facts follows the appropriate Finding. For all of the impacts, one or more of the findings above have been made. The proposed Project will not result in any significant and unavoidable impacts.

SECTION 2.0 FINDINGS REGARDING POTENTIAL ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

All Final EIR mitigation measures, as set forth in the MMRP (attached as Exhibit A to these findings) have been incorporated by reference into the conditions of approval for Project 4. These mitigation measures and conditions of approval will result in a substantial mitigation of the effects of Project 4, such that the effects are not significant or have been mitigated to a level of less than significant. Specifically, the Commission has determined, based on the Final EIR, that Project 4 design features, mitigation measures, and conditions of approval will reduce Project impacts concerning Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems to a level of less than significant.

2.1 AESTHETICS

Potential Effect:

Project 4 would have significant visual impacts to the Project area if it had a substantial adverse effect on a scenic vista; would be visible from, or obstruct views from a regional riding or hiking trail; substantially damage scenic resources including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features; or create a new source of substantial light or glare which will adversely affect day or nighttime views in the area.

Finding:

Changes or alterations have been required in, or incorporated into Project 4 which mitigate or avoid the potentially significant environmental effects related to Aesthetics.

Facts Supporting the Finding:

The Project 4 site is not located along or in proximity to a state scenic highway. The proposed SGFs would not substantially damage or impact scenic resources such as trees (including Joshua trees) or rock outcroppings, and there are no historic buildings located on the Project 4 site. **(DEIR at 4.1-105)**. The Project 4 site is located in the west/central portion of the Antelope Valley. Vegetation that exists on the Project 4 site consists of mostly non-native species. **(DEIR at 4.1-39)**. The existing Project 4 site is vacant land in a rural area, and is typical of the surrounding landscape. The visual quality of the Project 4 site is low. The Project site itself does not have unique or rare features, or hold special significance. The topography is uniform and flat. Vegetation is uniform and consists of grasses and short shrubs. No permanent water features occur on the site, and there are no features or characteristics that set the Project 4 site apart from the surrounding desert landscape. **(DEIR at 4.1-108)**.

Rural development and public infrastructure in the landscape around the site includes farms, rural residences, agricultural fields, high-voltage power lines, PV solar fields, electrical distribution lines, roadways, and the Antelope Substation. Development near the Project 4 site is mostly rural in nature. A ranch home compound is located at the corner of West Avenue J and 87th Street West. There are several other rural ranch residences located directly adjacent to, or within 1 mile of the site. Several of the ranch residences have trees planted around them that would provide some degree of vegetative screening from the proposed SGF. A 35-acre subdivision is located approximately 0.25 miles north and 0.5 mile east of the Project 4 site, and is surrounded by a brick wall approximately 6 feet in height. Man-made features on the Project site include two-track and dirt roads. The Project 4 site is located within approximately 0.5 miles of the Antelope Substation, an approximately 90-acre substation located at West Avenue J and 95th Street West. The Antelope Substation is a major substation, and several high-voltage transmission lines and electric distribution lines connected to the Antelope Substation are located in the area. **(DEIR at 4.1-39, 40)**.

There are no designated scenic highways in the vicinity of the Project 4 site. The City of Lancaster's MEA (City of Lancaster 2009a) identifies 90th Street West and West Avenue K (between 90th Street West and 110th Street West) as potential scenic routes. 90th Street West is located adjacent to the Project 4 site, and West Avenue K is located approximately 1 mile south of the Project 4 site. However, these roadways have no official designation as scenic routes at this time. **(DEIR at 4.1-40)**. Project 4 would be visible from trails and vistas associated with the Foothills Area, and may be visible from Class III bikeways located along West Avenue I, 90th Street West, and West Avenue J. Other scenic resources identified by the City of Lancaster are located a sufficient distance away such that the Project would fade into the horizon line and not be discernible. The Project 4 gen-tie lines would be undergrounded from the Project site, under the adjacent roads, to a riser next to an existing pole. **(DEIR at 4.1-96)**. The Project 4 SGF would likely be visible from eastbound West Avenue K between 90th Street and 110th Street.

West Avenue K is valued for its views to the south of the San Gabriel Mountains and Portal Ridge foothills, but because the SGF will be located at least 1 mile north of West Avenue K, it would not impede views to the south of Portal Ridge. Also, the Antelope Substation, high-voltage transmission lines, and existing PV solar fields are situated in between West Avenue K and the proposed Project 4 SGF. Impacts to views along West Avenue K are therefore not significant. The Project 4 SGF would not be dominant in bicyclists' views unless directly adjacent to the site. When a bicyclist is adjacent to the completed SGF, their views may be partially obscured for a short time while the rider passes the Project site. The Project 4 SGF and gen-tie line would not degrade the scenic character around the bikeways, because it is not out-of-character when considering the context of the surrounding landscape. A 10-foot vegetative buffer is proposed to mitigate views along the Project 4 site boundaries facing West Avenue I, a portion of 95th Street West, 90th Street West, and West Avenue J. Therefore, these visual impacts will be less than significant (see Mitigation Measure A-4). **(DEIR at 4.1-97; 4.1-103)**.

Construction activities and equipment would be noticeable from vistas on top of and around Foothills Area due to the close proximity of the SGF, from 90th Avenue West, and from the Class III bikeways. During construction of the SGF, disturbance areas would appear as large patches of fine, buff-colored rock and soil. **(DEIR at 4.1-96)**. Because construction activities would be limited to daylight hours, impacts from nighttime lighting would not occur. Lighting will comply with the Los Angeles County Rural Outdoor Lighting District Ordinance, and impacts would be less than significant with implementation of Mitigation Measure A-5. Any visible dust produced during construction would be mitigated to less than significant with implementation of the fugitive dust plan (Mitigation Measure A-1). Any trash, debris, and waste would be removed from the Project 4 site during construction and the site would be screened or partially screened by fencing, as required by Mitigation Measures A-2 and A-3. **(DEIR at 4.1-96; 4.1-112)**.

Because of the low height of the solar modules, no significant shadows would be cast upon nearby sensitive land uses. The SGF would not create a significant source of light. Light sources associated with the SGF would be minimal, and would be restricted to that required for nighttime safety and security according to County requirements and would comply with all requirements of the Los Angeles County Rural Outdoor Lighting District Ordinance. Only permitted types of lights would be used and specified height limits employed. Lighting would be installed and directed downward and shielded to avoid light trespass. The amount of light generated by the security lights would be consistent with the provisions of the new Los Angeles County Rural Outdoor Lighting District Ordinance, and would allow less light trespass than existing sources of light produced by man-made structures adjacent to the proposed site, including residences, roadway lights, and other existing nearby facilities. Motion sensors and time limits would be employed per the lighting ordinance. Project 4 equipment and components would introduce minimal amounts of glare to the existing landscape. The PV modules are designed to absorb sunlight, and the glass modules that protect the PV surface are typically formulated to allow sunlight to pass with minimal reflection. Impacts from new sources of light or glare will be less than significant with implementation of Mitigation Measure A-5. **(DEIR at 4.1-113)**.

No trails are located on the Project 4 site, therefore the Project 4 SGF would not cause the vacation of any portion of any trail, nor would it obstruct expansive views from any trails.

(DEIR at 4.1-102). After construction, the Project 4 SGF would be visible from the Foothills Area. A post-construction photographic simulation was completed from a viewpoint in the Foothills Area (see DEIR Figure 4.1-35). The photograph was taken from a picnic area along the California Aqueduct Trail, east of Johnson Road and approximately 2.8 miles southwest of the Project 4 site. A contrast rating was conducted from this viewpoint to assess the level of contrast that would be introduced by the proposed SGF from the scenic area, which was determined to be low from this viewpoint. No noticeable modifications to landforms are anticipated. The removal of vegetation (the shrubs on the south side of the road) would introduce a weak level of contrast compared with existing conditions. The solar modules would create a low contrast in form, line, color, and texture from existing conditions. The SGF would appear similar to the existing PV solar fields located adjacent to the proposed SGF. Compared to agricultural areas, the SGF would appear slightly darker in color, but the form of the solar field and the lines created by the edges of the solar field mimic the appearance of an agricultural field from this distance and vantage point. The Project 4 SGF, including the gen-tie line, would not dominate views from the Foothills Area given the degree of modifications that have already been introduced to the landscape, including roads, electrical infrastructure (PV solar fields, transmission lines, substations, and distribution lines), and agricultural fields. **(DEIR at 4.1-97; 4.1-103)**.

After construction, it is highly unlikely that the Project 4 SGF would be discernible from Little Buttes, Quartz Hill, or the California Poppy Reserve, all of which are located over six miles from the site. **(DEIR at 4.1-40)**. Even from a superior viewing position at Quartz Hill or the California Poppy Reserve, a viewer is not likely to be able to distinguish the Project site from eight miles away from the Project site. If the SGF was visible from that distance, it would not appear dissimilar to adjacent existing PV solar fields, an agricultural field or the Antelope Substation in size, shape, and color. **(DEIR at 4.1-97)**. Project 4 would not significantly impact views from residences in the Westview Estates Subdivision because of screening provided by adjacent homes and the privacy wall surrounding the subdivision. **(DEIR at 4.1-109)**.

Project 4's visual impacts are further reduced with the adoption of the following feasible mitigation measures:

A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.

A-2 The Project site shall be maintained free of debris, trash, and waste during construction.

A-3 The Project site shall be visually screened or partially screened during construction by fencing.

A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.

A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize

light trespass, and mounted on essential infrastructure rather than on separate light poles except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.

2.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Project 4 would have a significant impact on Agriculture and Forestry Resources if it would: convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract; conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220 (g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g)); result in the loss of forest land or conversion of forest land to non-forest use; or 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.

Finding:

Project 4 will not have a significant effect on the environment related to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

As currently mapped under 2010 data from the Department of Conservation ("DOC") Farmland Monitoring and Mapping Program ("FMMP"), the Project 4 site contains 113.7 acres of Prime Farmland and 43.4 acres of Farmland of Statewide Importance. The DOC states that Prime Farmland and Farmland of Statewide Importance "must have been used for irrigated agricultural production at some time during the four years prior to the mapping date." Of the 113.7 acres that were classified as Prime Farmland, 61.1 acres were last irrigated in 1972, and 52.6 acres were last irrigated in 1961. Current landowners have confirmed no agricultural production in the past four years. Of the 43.4 acres that are considered Farmland of Statewide Importance according to the DOC FMMP 2010 data, 5.7 acres were briefly irrigated in 2003, previously non-irrigated since 1961, and the remaining 38.7 acres were last irrigated in 1972. The Project 4 gen-tie line would traverse in public ROW underground and through land designated as Prime Farmland and Farmland of Statewide Importance. None of the designated acreage has been utilized for agricultural production or irrigated for well over the four-year limit. Therefore, the Applicant is seeking to remove the farmland designations from the Project 4 site. The DOC has reviewed the site and, in a letter dated December 31, 2012, determined that the properties "will be reclassified to Grazing Land on the 2012 edition of the Important Farmland Map for Los Angeles County." (See DEIR Appendix B.11). Once the designations have been updated, the property will not

contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, impacts will be less than significant. **(DEIR at 4.2-6)**.

Project 4 contains no forest land, timberland, or timberland zoned Timberland Production. **(DEIR at 4.2-8)**.

Project 4 is located within the Los Angeles County Zoning Ordinance designation A-2, Heavy Agriculture. According to LACDRP, a solar electricity energy generating facility is allowed in Zone A-2 with the issuance of a CUP (Chapter 22.24.150[A]). Furthermore, Project 4 will not preclude future agricultural uses. Project 4 and its associated gen-tie lines are located within a LACDRP Agricultural Opportunity Area ("AOA"). The Antelope Valley Areawide General Plan Policy states that these areas should be protected from incompatible uses. The Antelope Valley Area Plan states that applications for non-agricultural uses in the AOA areas will be evaluated for their impact upon adjacent agricultural operations.

Project 4 would involve conversion of land that was formerly used for agricultural production to renewable electricity energy production. Construction and operation of Project 4 would not involve other restrictions, obstructions, or resources that could result in conversion of Farmland to non-agricultural use. The Project 4 site has not been irrigated since 1972. The Project would produce power in a passive manner and would result in minimal air pollutant emissions, traffic, and noise, and would not affect adjacent agricultural operations.

Project 4 and its associated gen-tie lines are located in an AOA, but are not currently utilized for agricultural purposes. Additionally, the proposed properties are not designated under a Williamson Act contract. As a result, construction and operation of Project 4 would not conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, impacts to existing agricultural use zoning, designated AOAs, and Williamson Act contracts will be less than significant. **(DEIR at 4.2-7)**.

Project 4 and its associated gen-tie lines will temporarily preclude future agricultural use at the Project 4 site. Following the termination of power generating activities at the Project 4 site, all facilities and equipment would be removed and the land would be restored as near to its pre-development condition as possible in the event a new similar land use is not contemplated at that time by then current owners. A decommissioning and reclamation plan detailing land restoration activities will be provided, as required by Los Angeles County as part of the CUP. Additionally, the Applicant will be required to provide a decommissioning bond, or other suitable financial guarantee acceptable to the County, equal to the amount of money estimated to be required to decommission the Project, including any additional environmental review which might become necessary, and restore the land to as near its pre-development condition as possible. Project 4 will not impact any land use outside the development site's limits. Impacts regarding the conversion of Farmland to non-agricultural use will be less than significant. **(DEIR at 4.2-9)**.

2.3 AIR QUALITY

Potential Effect:

Project 4 would have a significant impact on Air Quality if it would: conflict with or obstruct implementation of the applicable air quality plan; violate any air quality standard or contribute substantially to an existing or projected air quality violation; cumulatively produce a considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors); expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people.

Finding:

Changes or alterations have been required in, or incorporated into Project 4 which mitigate or avoid the potentially significant environmental effects related to Air Quality.

Facts Supporting the Finding:

Pursuant to the Clean Air Act ("CAA"), the Antelope Valley Air Quality Management District ("AVAQMD") is required to reduce project emissions of criteria pollutants for which the Mojave Desert Air Basin ("MDAB") is in non-attainment. Project 4 is located within a non-attainment area, which means that certain Project-related activities could potentially be subject to emission control strategies contained within the AVAQMD Federal 8-Hour Ozone Attainment Plan. Construction would involve activities that can result in emissions of particulate matter ("PM"). However, construction of PV panels and the generation-tie line would not require intense earthmoving activities, only the low-impact method of mowing the surface. Compliance with applicable rules, ordinances, plans, and policies would minimize PM emissions during construction. Project 4 construction emissions would not exceed emission thresholds, and would be less than significant. **(DEIR at 4.3-28)**. Since construction of Projects 1-6 would occur consecutively over the course of two years, construction of the six Projects could overlap, which may cause a peak in the Projects' daily construction emissions. However, maximum daily and annual construction emissions would not exceed the appropriate AVAQMD significant thresholds for all pollutants, even with the potential overlap in construction schedules. **(DEIR at 4.3-37)**.

During operation of Project 4, the Project site would undergo maintenance and security activities no more than 10 times annually (as needed), and would not create a daily increase in population or visitors. The assumption of 10 annual trips includes truck trips associated with panel washing. Project 4 would comply with AVAQMD rules and Los Angeles County ordinances, and is designed to be consistent with applicable county policies and the Attainment Plan. Therefore, Project 4 would not conflict with implementing the applicable air quality plan. **(DEIR at 4.3-25; 4.3-40)**.

Project 4 emissions estimates are based on compliance with AVAQMD Rule 403 requirements for fugitive dust suppression, watering exposed surfaces two times daily. The short-term emissions during Project 4 construction would not exceed AVAQMD significance thresholds. As such, Project 4 would not exceed thresholds, result in violating air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-28)**. Likewise, even when all six Projects operate concurrently, the operation of all six Projects would not exceed annual thresholds, violate air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-42)**.

Decommissioning of Project 4 (and each of the six Project sites) would require removal of the PV modules, PV module mounting system, electrical boxes, electrical inverters and transformers, electrical AC collection system, switchgear, data monitoring equipment, chain link perimeter security fencing, concrete ballasts, underground vaults, other concrete pads, and transporting all components off site. Air quality emissions from decommissioning would be generated from the pieces of equipment used and any fugitive dust from site preparation activities. Equipment used for decommissioning and removal of concrete ballasts, underground vaults, concrete pads, etc. generally would be similar to that used for construction, except that no mowing or clearing would be required.

Since decommissioning does not involve mowing or clearing activities, the level of fugitive dust emissions would be less than emissions created during construction. After removal of equipment and facilities, the site would need to be re-vegetated. Decommissioning would occur after at least 25 years of operation; therefore, equipment engine technology is likely to be more advanced, and fuels to be cleaner. Criteria pollutant emissions during decommissioning would be equal to or, more likely, less than those estimated from construction for Project 4, and will also be less than significant with mitigation. **(DEIR at 4.3-42)**. Similar to criteria pollutant emissions, hazardous air pollutant emissions during decommissioning would be less than during construction due to advanced equipment engine technology and cleaner fuel and would therefore be less than significant. Exhaust from off-road equipment and on-road vehicles used during decommissioning and construction truck trips would not be expected to create objectionable odors, and would therefore be less than significant. **(DEIR at 4.3-42).**

The MDAB is currently nonattainment for federal and state ozone standards and nonattainment for state PM_{10} standards, which may cause emissions from Project 4 to contribute to an existing or projected air quality standard exceedance. Implementing any of the six Projects (including Project 4) would increase short-term emissions related to construction, and a negligible increase in long-term emissions related to SGF operation and maintenance. Construction for all six sites is expected to be staggered, and may extend over two years. Nevertheless, due to the nature and size of each site, simultaneous construction would not result in emissions of ozone precursors or PM_{10} that exceed daily thresholds. As shown in DEIR Table 4.3-12, “Mitigated Peak Daily Concurrent Construction Emissions”, and DEIR Table 4.3-13, “Peak Annual Concurrent Construction Emissions”, the impacts would be less than significant prior to mitigation. Implementing control strategies to reduce PM_{10} further minimizes air emissions. As such, construction of Project 4 would not 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). **(DEIR at 4.3-43)**.

During the operation phase, Project 4 will have no major emissions sources. Facility operating equipment that emits regulated air pollutants or requires AVAQMD permits is not planned at Project 4 or any of the six Project sites. As shown in DEIR Table 4.3-20, "Peak Annual Concurrent Operation Emissions", the impacts would be less than significant. As such, operation of Project 4 would not 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). **(DEIR at 4.3-43)**.

Project 4 was analyzed for air impacts to nearby sensitive receptors; however, sensitive receptors would only be exposed during construction activities. PM_{10} and $PM_{2.5}$ concentrations are expected to occur primarily from fugitive dust emissions during mowing, excavation activities and, to a lesser degree, during PV installation and paving. Rule 401 requires that airborne particles remain on the site from which they originate under normal wind conditions. Proper mitigation techniques must be implemented to ensure that fugitive dust is contained. Emissions are not expected to expose even the closest sensitive receptors to substantial pollutant concentrations, and, due to the distance between Project sites, simultaneous construction at two sites would not significantly impact the same sensitive receptors. **(DEIR at 4.3-44)**.

Operational emissions from Project 4 would not impact local air pollutant levels at nearby receptors. As mentioned above, sensitive receptors would only be exposed, if at all, during construction activities. The primary source of Project emissions during operation is the vehicles used by facility maintenance staff traveling to and from the site. Maintenance is expected to occur no more than 10 times per year. Overall, Project 4 would not result in an increase in VMT over the course of one summer or winter day. Thus, Project 4 would not result in new long-term stationary sources, nor would they result in a significant number of net new vehicular trips. Carbon monoxide (CO) impacts from operation of Project 4 to sensitive receptors would be less than significant. **(DEIR at 4.3-44)**.

Short-term concentration levels during the construction phase will not expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than the EPA screening levels. **(DEIR at 4.3-45)**. Due to continuous construction of each of the six Project sites over the course of two years (which may overlap), long-term cancer impacts from construction activities to the nearest sensitive receptors were evaluated, and found that even with the cumulative contribution of health risk impacts from all six proposed Projects, the cumulative cancer risk to the identified sensitive receptors is still below the cancer risk exposure level. **(DEIR at 4.3-46)**. Short-term concentration levels during Project 4 site construction will neither expose sensitive receptors to substantial pollutant concentrations, nor exceed the cancer risk screening levels. **(DEIR at 4.3-47)**.

Project 4's Air Quality impacts are further reduced with the adoption of the following feasible mitigation measures:

AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction, or, in locations where water alone does not suffice to suppress dust adequately apply nontoxic chemical soil

stabilizers, according to manufacturers' specifications. Temporarily stockpiled soil shall be secured with tarps or plastic sheeting or sprayed with non-toxic soil stabilizers.

AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).

AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.

AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.

AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.

AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.

AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.

AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.

AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.

2.4 BIOLOGICAL RESOURCES

Potential Effect:

Project 4 would have a significant impact on biological resources if it would: have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game Wildlife ("CDFW") or U.S. Fish and Wildlife Service ("USFWS"); have a substantial adverse effect on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, and regulations of CDFW or USFWS; have a substantial adverse effect on federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means; 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; 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) otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.); 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, Section 22.56.215), and the Sensitive Environmental Resource Areas ("SERAs"), (L.A. County Code, Title 22, Section 22.44, Part 6); or conflict with the provisions of an adopted state, regional, or local habitat conservation plan.

Finding:

Changes or alterations have been required in, or incorporated into Project 4 which mitigate or avoid the potentially significant environmental effects related to Biological Resources.

Facts Supporting the Finding:

Project 4 does not contain riparian habitat, coastal sage scrub, oak woodlands, wetlands, Joshua trees, or yucca trees on the site, and does not contain non-jurisdictional or state regulated waters. **(DEIR at 4.4-59)**. There are no wetlands, vernal pools, or riparian habitat identified on Project 4. Based on the observation during the biological surveys conducted for the EIR, APNs 3218-002-018 and 3218-002-023 have natural swales located onsite, but these do not support wetlands or

riparian vegetation or riparian habitats. A man-made agricultural irrigation canal is present along Lancaster Blvd. on the northern boundary of APNs 3203-002-012 and 3203-002-014. This feature does not support riparian vegetation or riparian habitats. Project 4 does not have any features that could be federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act. **(DEIR at 4.4-60, 61)**.

Project 4 does not contain oak trees, juniper trees, Joshua trees, or other unique native trees. **(DEIR at 4.4-62)**. Project 4 and the immediate vicinity do not contain or conflict with any Significant Ecological Areas ("SEAs"), Wildflower Reserve Areas, or Sensitive Environmental Resource Areas ("SERAs"). The closest SEAs to Project 4 are the Ritter Ridge SEA located approximately 6 miles southeast of Project 4, Portal Ridge-Liebre Mountain located approximately 5 miles west of Project 4, and the Fairmont and Antelope Buttes SEA located approximately 5 miles northwest of Project 4. The Angeles National Forest is located approximately 6 miles to the southwest of Project 4 and the Antelope Valley California Poppy Preserve is located approximately 6 miles northwest of Project 4. Therefore, Project 4 would not conflict with any local policies or ordinances protecting biological resources. **(DEIR at 4.4-63, 64)**. There are no adopted state, regional, or local habitat conservation plans in effect within the boundaries of the Project 4 site. **(DEIR at 4.4-64)**.

Project 4 has low potential for northern California legless lizard and burrowing owl to occur on the parcels which comprise the Project 4 site. There is low to moderate potential for Coast horned lizard to occur. The parcels which comprise Project 4 were determined to be potential habitat for Ferruginous hawk, and foraging habitat for Merlin. Low-quality nesting and foraging habitat for Swainson's hawk is also present on some of the parcels which comprise Project 4. Developing the site as a solar generating facility would remove habitat for these species, and the 135.6 acres of land for Project 4 would be mostly unavailable as wildlife habitat during the life of Project 4, which would result in a significant impact. However, mitigation measures will reduce this impact to less than significant. **(DEIR at 4.4-58)**.

Project 4 is located within an area of topographically homogeneous open space, and there are no local constraints to movement of resident or migratory wildlife that development of Project 4 would further aggravate. There are no known wildlife migration pathways that would be impacted by Project 4. **(DEIR 4.4-61)**.

Wildlife nursery areas on the Project 4 site may include nesting sites of native bird species, which are protected by the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) and the California Fish and Game Code Section 3503. Burrowing owls may have suitable burrows on the Project 4 site, and protections for bird nesting and burrowing owls are provided in Mitigation Measures B-1, B-2, B-3 and B-4. The intent of acquiring mitigation lands would be to select available parcels that would replace lost breeding/foraging/winter foraging habitat and enhance the overall quality of habitat for a variety of species including migratory bird species. The potential to acquire parcels that would also maintain or enhance wildlife migration corridors in the area would also be considered. Planting of shrubs and native vegetation on the Project 4 site would improve the opportunities for shrub-nesting bird species on the Project 4 site when it is complete. **(DEIR 4.4-61)**.

Project 4 impacts to Biological Resources are further reduced with the adoption of the following feasible mitigation measures:

B-1: Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to LACDRP and CDFW at their request.

B-2: Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below.

Pre-survey information gathering will include review of all available agency nest data and mapping.

- A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted.

- Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds.

- A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012).

  If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals.

  Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand-excavated and collapsed under the supervision of the avian biologist.

  Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals.

- Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.

B-3: During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW during construction activities, as frequently as required by LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any

special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.

B-4: Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily.

Swainson's hawk: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity.

The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats:

Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows:

- A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed SEA.

- A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat;

- A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat.

Burrowing Owl: Mitigation for any occupied burrowing owl burrows found during preconstruction surveys will include a comprehensive tiered approach:

- Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;

- Disturbance avoidance of occupied burrows during nesting period February 1 – August 31;

- Impact avoidance of occupied burrows;

- Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW).

- Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback).

- Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project.

Alkali Mariposa Lily: Alkali mariposa lily will be avoided to the greatest extent possible. If preconstruction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable.

For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.

B-5: Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria:

> **Habitat Management Land Selection Criteria**: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired.
>
> Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with

a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred.

Habitat Management Lands Acquisition: Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW.

The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s) acquisition in an amount acceptable to the LACDRP and CDFW.

Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the Applicant shall provide a proposed date of purchase which coincides with construction of the facility.

B-6: Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.

B-7: Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads) as follows:

Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock is not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.

2.5 CULTURAL RESOURCES AND PALEONTOLOGICAL RESOURCES

Potential Effect:

Project 4 would have a significant effect on Cultural Resources or Paleontological Resources if it would: cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5; cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of formal cemeteries.

Finding:

Changes or alterations have been required in, or incorporated into Project 4 which mitigate or avoid the potentially significant environmental effects related to Cultural Resources and Paleontological Resources.

Facts Supporting the Finding:

No historical resources were detected within Project 4 during the transect survey conducted for the EIR. Site "P-19-004223" and "P19-189453", two historic period farming complexes, were recorded at this location. Both sites lack integrity and the recordation of surface artifacts has likely exhausted the date potential for the sites. Site P19-004223 and P19-189453 are recommended as not eligible for listing on the is recommended as not eligible for listing on the California Register of Historic Resources ("CRHR") or National Register of Historic Places ("NRHP"), and no further management consideration of these resources is necessary. Therefore, construction, operation and maintenance of Project 4 will not cause any change in the significance of historical resources. **(DEIR at 4.5-24)**.

Two previously recorded resources were revealed in the file search for Project 4. P19-189425 is an historic electric transmission line that has not been evaluated for CRHR eligibility. Implementation of Mitigation Measure CUL-3, calling for avoidance of this resource, will ensure that impacts to this resource are reduced to a less than significant level. Site number CA-LAN-1579H, the historic Del Sur Cemetery, is located within the boundary of Project 4. This cemetery has not been evaluated for CRHR eligibility, but a survey conducted by the Institute for Canine Forensics established that there are still human remains interred at that location. Implementation of Mitigation Measure CUL-4, calling for avoidance of this resource, and Mitigation Measure CUL 5, calling for archaeological monitoring around the perimeter of the former cemetery site, will ensure that impacts to this resource are reduced to a less than significant level. **(DEIR at 4.5-24)**.

There is a possibility that historical and/or archaeological materials would be uncovered during necessary subsurface excavations for the construction of the proposed Project 4. Although the likelihood of encountering archaeological resources on the site is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure CUL-1, which describes procedures to be followed in the event that cultural resources are discovered, is

required. CUL-1 would reduce this potential impact to a less than significant level. In addition, the possibility that other previously undiscovered remains could be found within the boundary of Project 4 during construction will be addressed by implementation of Mitigation Measure CUL-2. **(DEIR at 4.5-25)**.

No paleontological resources were detected during the transect survey of Project 4. Based on the paleontological assessment conducted for the EIR, it is unlikely that any intact significant paleontological resources are or will be located on the Project 4 site. Therefore, Project 4 would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature, or contain rock formations indicating potential paleontological resources. If Project excavations reach 10 feet or more below current grade and reveal that older Quaternary deposits and/or the later Miocene deposits are exposed, there will be a higher potential for encountering significant vertebrate fossil remains. Deep cuts should be inspected by a qualified paleontologist in an attempt to identify the more sensitive older alluvial strata. **(DEIR at 4.5-31)**.

There is a possibility that paleontological materials would be uncovered if excavations for the construction of the proposed Project 4 reach a depth of 10 feet or more below current grade. Although the likelihood of encountering paleontological resources within the Project 4 area is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure PALEO-1, the development of a Paleontological Resources Mitigation and Monitoring Plan ("PRMMP") by a qualified paleontologist is required if construction excavation depth is below 10 feet or more below current grade. PALEO-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-31)**. Operation of Project 4 would not require any excavations to the depth of potential paleontological resources. There, operation of Project 4 would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources. **(DEIR at 4.5-31)**.

There is a possibility that human remains, historical, and/or archaeological materials would be uncovered during necessary subsurface excavations for the construction of the proposed Project 4 near the boundary of CA-LAN-1579H. Although the likelihood of encountering archaeological resources on the site is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure CUL-4, avoidance of the site, CUL-5, archaeological monitoring of the defined perimeter of the site, and CUL-1, which describes procedures to be followed in the event that cultural resources are discovered, is required. Mitigation Measures CUL-1, CUL-4, and CUL-5 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-33)**.

Project 4 impacts related to Cultural Resources are further reduced with the adoption of the following feasible mitigation measures:

CUL-1: In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist and Native American Monitor shall make recommendations to

the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites.

If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.

CUL-2: In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.

CUL-3: Project 4 construction of gen-tie lines shall maintain the right of way buffer zones prescribed by SCE for this historic electric transmission line resource, which is an active transmission line. This Mitigation Measure shall apply to Project 4 only.

CUL-4: Project construction for Project 4 shall maintain a one acre undisturbed area surrounding the Del Sur Cemetery site. This Mitigation Measure shall apply to Project 4 only.

CUL-5: A County approved archaeologist will be retained to initiate and supervise cultural resource monitoring during Project related earthwork in areas of the Project that are within 50 feet from certain significant cultural resources, specifically from the defined perimeter of site CA-LAN-1579H (Project 4). If resources are identified, the procedures outlined in CUL-1 will be followed and/or CUL-2 (as necessary). This Mitigation Measure shall apply to Project 4 only.

PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. The paleontologist shall develop and execute a PRMMP and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will

outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find to allow evaluation of the find and determination of appropriate treatment according to the Program.

2.6 GEOLOGY AND SOILS

Potential Effect:

Project 4 would have a significant effect on Geology and Soils if it would: expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic related ground failure, including liquefaction and lateral spreading; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides; result in substantial soil erosion or the loss of topsoil; 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; be located on expansive soil; have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater; or conflict with the Hillside Management Area Ordinance or hillside design standards in the County General Plan Conservation and Open Space Element.

Finding:

Project 4 will not have a significant effect on the environment related to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

Project 4 and the Project 4 gen-tie line are not located in an active or potentially active fault zone according to the California Geological Survey ("CGS") Seismic Hazard Zone Maps (CGS 2008) and Alquist-Priolo Earthquake Fault Zoning Map (CGS 2010). The closest fault zones are the San Andreas Fault Zone, which is located approximately 4.2 miles to the south southwest of the Project 4 site, and the Garlock Fault Zone, which is located approximately 20 miles northwest of the Project 4 site. Based on research and available information, Project 4 is susceptible to seismicity, but is not susceptible to fault rupture; therefore, impacts involving the rupture of a known earthquake fault will be less than significant. **(DEIR at 4.6-14)**.

The United States Geological Survey ("USGS") National Seismic Hazard Map (2008) indicates that Project 4 and the Project 4 gen-tie line are located in an area mapped from 40 to 60 percent

gravity for peak horizontal acceleration with a 10 percent probability of exceedance in the next 50 years. According to the USGS, and dependent on structural design, 10 percent gravity is the lower threshold at which damages to structures are likely to occur. Based on geologic and soil conditions at the site, the USGS Ground Motion Parameter Calculator indicates that Project 4 facilities will need to be designed to sustain spectral accelerations of approximately 0.664 to 1.567 percent gravity (USGS 2012). **(DEIR at 4.6-17)**.

Project 4 has the potential to be subjected to ground motion during construction. However, because of the temporary nature of the construction period relative to the frequency of occurrence of significant seismic events, the potential for Project 4 construction to expose people or structures to substantially adverse effects due to seismicity and ground motion will be less than significant. **(DEIR at 4.6-17)**. During operation of the facility, all Project 4 structures and operational facilities will be designed in accordance with the California Building Code ("CBC") and applicable industry standards. The design and construction of Project 4 would comply with all applicable building codes and standards established by regulatory agencies, including the Los Angeles County Department of Public Works and the CBC. Therefore, Project 4 impacts related to seismic shaking and strong ground motion hazards would be less than significant. **(DEIR at 4.6-17)**.

The CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 4 or the Project 4 gen-tie line as being located in zones with the potential for liquefaction or ground failure. Additionally, Project 4 is located on poorly sorted coarse grained materials with groundwater typically greater than 100 feet below ground surface (bgs) (USGS 2008). Based on available geologic information, the potential susceptibility of ground failure is less than significant for Project 4 construction and operation. **(DEIR at 4.6-19)**.

The location of Project 4 and its associated gen-tie lines contain generally low slopes of less than 1 percent gradient. As indicated in the Project description, development of the solar facility would not result in significant changes to existing site grades, and would not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 4 as being located in zones susceptible to landslides or slope failure. Therefore, the potential susceptibility for slope failure and landslides during construction and operation is less than significant for Project 4. **(DEIR at 4.6-20)**.

The soil series at the location of Project 4 and the Project 4 gen-tie line was indicated to be Greenfield sandy loam, Sunrise sandy loam, Ramona coarse sandy loam, and Hesperia sandy loam. These soil series have an erosion factor of 0.24 to 0.32, indicating a low to medium susceptibility to water erosion, and a wind erodibility group of 3, indicating a low to medium susceptibility to wind erosion. Implementation of appropriate erosion and sediment control BMPs will be implemented during construction and operation of Project 4, as outlined in Draft EIR Hydrology Section 4.9 and Air Quality Section 4.3, and will mitigate potential impacts to less than significant levels. **(DEIR at 4.6-22)**.

Based on the information in the Geotechnical Critical Issues Analyses and Custom Soil Resource Reports prepared by Tetra Tech, the location of Project 4 and the Project 4 gen-tie line contains generally low gradient slopes. Development of solar facilities will not result in significant

changes to existing site grades, and will not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) indicates that Project 4 is not susceptible to landslide or liquefaction hazards. **(DEIR at 4.6-24)**.

Although subsidence has occurred throughout the Antelope Valley, the majority of subsidence has been concentrated near the City of Lancaster and was caused by excessive groundwater pumping and decreased water levels. Subsidence in the vicinity of Project 4 was between 0 to 3 feet from 1930 to 1992, and there has been no surficial evidence such as fissures and differential settling observed near the Project 4 location. Based on historic rates of subsidence and a relatively stabilizing water level due to reduced pumping and proposed aquifer management, future subsidence is expected to be minimal. In the event that minor future subsidence does occur, the potential impact to the proposed structural design (post mounted racking systems and relatively small foundations for electrical equipment) would be minimal. Based on geologic data and the proposed construction and operation as described in the Project description, Project 4 impacts to on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse will be less than significant. **(DEIR at 4.6-24, 25)**.

The soil series at the location of Project 4 and the Project 4 gen-tie line was indicated to be Greenfield sandy loam, Sunrise sandy loam, Ramona coarse sandy loam, and Hesperia sandy loam. This soil series is rated for a low shrink/swell potential, and the potential for expansive soils to affect Project 4 is less than significant. **(DEIR at 4.6-26)**. Project 4 does not propose the use of any sanitary facilities that will require septic tanks or sanitary wastewater disposal during either construction or operation. Therefore, no impact will occur. Project 4 is located on the floor of the Antelope Valley where the terrain is nearly flat. Project 4 is not located in the hillside area, and is not affected by Hillside Management Areas. **(DEIR at 4.6-26)**.

2.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Project 4 would have a significant impact related to Greenhouse Gas Emissions and Climate Change if it would: generate direct or indirect GHG emissions that may have a significant impact on the environment, based on any applicable threshold of significance; or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Finding:

Changes or alterations have been required in, or incorporated into Project 4 which mitigate or avoid the potentially significant environmental effects related to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

Project 4's short-term GHG emissions during the construction phase (maximum daily emissions of 11,208 pounds per day) would not exceed the AVAQMD significance threshold for maximum daily emissions (548,000 pounds per day). As such, Project 4 would not exceed thresholds or

result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-21, 22)**.

Because construction of the six Project sites may overlap, concurrent construction emissions of Projects 1-6 were analyzed by emissions per year and thus compared to the annual GHG threshold of 100,000 metric tons of CO_{2e} per year, for long-term emissions. The unmitigated peak annual construction levels for all six Project sites are expected to result in annual GHG emissions below the most stringent annual threshold proposed by the AVAQMD (100,000 tons per year). As such, the Project will not exceed thresholds or result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-23)**.

During operations, Project 4 facility operation would be limited to general maintenance, panel washing, and security. The primary source of emissions during operations is mainly the vehicles used by facility maintenance staff to and from the site. It is anticipated that operations and maintenance would utilize one water truck for panel washing and one light duty truck twice per year. Although Project 4 is scheduled for bi-annual panel washing, a maximum of ten trips were assumed for each Project (four round trips plus one additional round trip to be conservative). The operation emissions provided for each Project are considered the Project's baseline emissions, since it does not include any solar energy reductions. Because operations-related GHG emissions are considered long term, the AVAQMD daily significance threshold of 100,000 metric tons of CO_{2e} per year was used to analyze impacts during operations. The total annual operational emissions for Project 4 are 9.59 tons of CO_{2e} per year, which is well below the AVAQMD threshold of 100,000 tons per year. **(DEIR at 4.7-26)**. Likewise, concurrent operation of all six Projects is estimated to generate approximately 31 metric tons of CO_{2e} annually, which is well below the AVAQMD threshold. **(DEIR at 4.7-27)**.

Construction-related emissions from Project 4 would be temporary and finite in nature, below the applicable thresholds, and are consistent with the AB 32 Scoping Plan. Accordingly, Project 4's construction-related GHG emissions would not be a cumulatively considerable contribution to climate change. Project 4's operational GHG emissions would be negligible and would not comprise a cumulatively considerable contribution to climate change and, therefore, would be less than significant. **(DEIR at 4.7-28).**

Furthermore, with implementation of Project 4, there would be an added environmental benefit of displacing GHG emissions in the region. The solar energy generation would offset emissions from electricity usage, which would otherwise be produced by fossil-fueled power generation facilities using petroleum, natural gas, or coal combustion. Project 4 would result in a temporary increase in GHG emissions which is below the most stringent proposed threshold; employ active solar technologies supportive of the state's goals to reduce GHG emissions; and is consistent with the County of Los Angeles's goals. **(DEIR at 4.7-29)**.

Project 4 would therefore be in accordance with the state's need for the construction of renewable energy power plants to meet the state's GHG reduction objectives including:

- California's RPS that requires California's investor-owned electric utilities to obtain 20 percent of the electricity that they supply by 2010 from renewable sources;

- Executive Order S-14-08, which established the RPS targets for California that "all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020";

- Executive Order S-03-05 on climate change to advance renewable energy and other solutions to reduce California's GHG emissions; and

- The California Global Warming Solutions Act of 2006 (AB 32) that established a comprehensive program of regulatory and market mechanisms to reduce GHG emissions to 1990 levels by the year 2020.

Project 4 includes various project design features and objectives that address global climate change and reduce GHG emissions, as do each of the Projects 1-6. Project design features include aspects of the Project that either must be incorporated as part of the conditions of approval, or that the Applicant has committed to include to reduce GHG impacts associated with the Project. The Projects would be designed to reduce emissions through specific goals set. The expected Project features would directly or indirectly result in lower emissions of GHGs. The Project design features that address global climate change impacts include the following:

- Vegetation to sequester GHGs
    - Preserve natural areas by mowing, which maintains the organic material in the soil
    - Preserve open space by limiting constructing on portions of Project site
    - Plant trees and shrubs along the edges as buffers to adjacent receptors

- Construction limitations to minimize GHG emissions
    - Limit construction equipment idling beyond regulation requirements
    - Limit number of simultaneous construction projects by phasing

As such, Project 4 would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions. **(DEIR at 4.7-30)**. In addition to the Project design features listed above, the Project's impacts related to Greenhouse Gas Emissions and Climate Change are further reduced with the adoption of the following feasible mitigation measures:

GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

GHG-3 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.

GHG-4 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

2.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Project 4 would have a significant effect on Hazards and Hazardous Materials if it would: create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials; 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; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses; be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment; for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; for a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area; impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; expose people or structures to a significant risk of loss, injury, or death involving fires, due to location within a Very High Fire Hazard Severity Zones (Zone 4); expose people or structures to a significant risk of loss, injury or death involving fires, due to location within a high fire hazard area with inadequate access; expose people or structures to a significant risk of loss, injury or death involving fires due to location within an area with inadequate water and pressure to meet fire flow standards; expose people or structures to a significant risk of loss, injury or death involving fires due to location within proximity to land uses that have the potential for dangerous fire hazard; or constitute a potentially dangerous fire hazard.

Finding:

Changes or alterations have been required in, or incorporated into Project 4 which mitigate or avoid the potentially significant environmental effects related to Hazards and Hazardous Materials.

Facts Supporting the Finding:

Project 4 would not require extensive or ongoing use of hazardous materials. Hazardous materials used during the construction of Project 4 would be typical of most construction projects of this type. Hazardous materials used during construction activities may include gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, and other supplies. All hazardous materials would be transported, stored, and properly disposed of in compliance with all applicable laws and regulations. The accidental release of hazardous materials or wastes during construction activities is possible. The accidental release of hazardous materials or wastes would be promptly contained and abated in accordance with all applicable laws and regulatory requirements, and therefore is not expected to result in a significant impact. **(DEIR at 4.8-11)**. During operation of Project 4, limited quantities of hazardous materials would be stored on-site. These materials would include fire suppressant and transformer insulating oil (mineral oil). The mineral oil would be contained within Project 4 electrical transformers and switches. Project 4 would develop and implement a hazardous materials and hazardous waste management program for both construction and operational phases. The program would include the following, as required by applicable regulations. **(DEIR at 4.8-11)**.

- **Hazardous Materials and Hazardous Waste Handling:** The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 4. This program would be implemented prior to the start of construction activities. The program would prescribe proper hazardous material use, storage, and disposal requirements, as well as hazardous waste management procedures. The program would identify specific types of hazardous materials to be used during Project 4 construction and operation, and specific types of wastes that will be generated. All personnel would be provided with Project-specific training. These programs would be developed to ensure that all hazardous materials and hazardous wastes would be handled and disposed of in a safe and environmentally sound manner consistent with all applicable laws and regulations. Employees and contractor personnel handling wastes would receive hazardous materials training and be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and treatment, storage, and disposal facility ("TSDF") training in accordance with Occupational Safety and Health Administration ("OSHA") Hazard Communication Standard and 22 CCR. Prior to the start of construction of Project 4, a Hazardous Materials Business Plan ("HMBP") will be prepared and submitted in accordance with Chapter 6.95 of the California Health and Safety Code and Title 22 CCR, as required by the Certified Unified Program Agency.

- **Construction Stormwater Pollution Prevention Plan:** The construction contractor would prepare a site-specific SWPPP for review and approval by the appropriate regulatory agencies and implement it prior to the start of demolition or construction activities at Project 4. The SWPPP would utilize BMPs to address the storage and handling of hazardous materials and sediment runoff during demolition and construction activities.

- **Transport of Hazardous Materials and Hazardous Wastes:** Hazardous materials transported by truck would include fuel (diesel fuel and gasoline) and oils and lubricants

for equipment. Transportation of hazardous waste may include hazardous building materials and small amounts of construction waste such as waste oils, solvents, or cleaners. The construction contractor would prepare written procedures for the transport of hazardous materials and hazardous waste in accordance with the California Vehicle Code, California Highway Patrol Regulations (CCR Title 13); Department of Transportation Regulations, Title 49, CFR; and U.S. Environmental Protection Agency Regulations, Title 40 CFR, and CCR 22 regulations prior to the start of construction activities at Project 4.

- **Fueling and Maintenance of Construction Equipment:** The construction contractor would prepare written procedures for the fueling and maintenance of construction equipment prior to the start of construction activities at Project 4. Vehicles and equipment would be refueled off-site or on-site by refueling trucks. If on-site refueling or maintenance activities are required, refueling and maintenance procedures would include implementation of BMPs to ensure that chemicals do not come in contact with the ground. Equipment will be inspected daily for potential leakage or failures.

- **Emergency Release Response Procedures:** The construction contractor would prepare an Emergency Release Response Plan ("ERRP") detailing the response to releases of hazardous materials. The ERRP would be prepared prior to the start of construction activities at Project 4. The ERRP would prescribe hazardous materials handling procedures for reducing the potential for a release during construction activities, and would include an emergency response program to ensure the rapid and safe cleanup of any accidental spills. All hazardous material spills of threatened release would be immediately reported. All construction and operations personnel would be aware of federal, state, and local emergency response reporting guidelines. Implementation of the aforementioned hazardous materials and hazardous waste management programs would reduce the potential impacts associated with the handling, transport, and use of hazardous materials during both construction and operation of Project 4 to less than significant levels. **(DEIR at 4.8-12)**.

If lead based paint is found during construction of Project 4, the Applicant would comply with County requirements and provide a copy of the qualifications/license of the lead based paint abatement contractor that will perform the abatement or removal of lead based paint to the Department of Public Works Building and Safety Division and the County of Los Angeles Fire Department Health and Hazardous Materials Division. If required by the County, the Applicant would prepare and submit a Hazardous Building Materials Demolition Assessment and Management Plan to the Department of Public Works and Fire Department for review and approval to ensure compliance with all applicable federal, State, and local laws, and regulations. OSHA regulations are in place to assure that these materials are safely removed prior to or during demolition and renovation activities. In compliance with regulations requiring removals by firms and individuals licensed to do such work pursuant to applicable regulations the Project's potential impacts regarding lead exposure would be less than significant. Implementation of the aforementioned ERRP would reduce the potential impacts associated with upset and accidental release conditions at Project 4 (and gen-tie lines) to less than significant levels. **(DEIR at 4.8-13)**.

Project 4 would convert sunlight directly into electrical energy without the creation of hazardous emissions, and no impact to sensitive land uses would occur as a result of hazardous emissions. The primary emissions created by Project 4 (and gen-tie lines) would be air emissions from vehicle and equipment exhaust generated during construction activities. Potential impacts due to air emissions created during construction and maintenance activities at Project 4 would be less than significant, as discussed in Section 4.3 of the DEIR. **(DEIR at 4.8-13)**.

Based on the Environmental Data Review ("EDR"), the location of Project 4 and the Project 4 gen-tie line is not located at a known site that is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5; however, RECs indicated to be in the vicinity of Project 4 include an underground storage tank ("UST") and a clandestine drug lab. No known releases have occurred at Project 4 or adjacent to Project 4. Based on the information compiled in the EDR, Project 4 would have no impact due to site hazards to the public and environment during construction or operations. **(DEIR at 4.8-15)**.

Project 4 is not located within an airport land use plan area or within 2 miles of a public use airport. Therefore, Project 4 would have no impact on public use airports. **(DEIR at 4.8-15)**. Project 4 and the Project 4 gen-tie line is located approximately 0.15 miles from Bohunks Airpark, which is a privately-owned dirt airstrip. Bohunks Airpark has not adopted a land use plan. Project 4 is not expected to significantly alter surrounding land use or result in the construction of features greater in height than those already present in the surrounding areas. The solar generating facilities would introduce minimal amounts of glare to the existing landscape. The PV modules are designed to absorb sunlight, and the glass modules that protect the PV surface are typically formulated glass designed to allow sunlight to pass with minimal reflection. Construction activities would be limited to daylight hours and any lighting that may occur would be in compliance with the requirements of the Los Angeles County Rural Outdoor Lighting District Ordinance. Therefore, the Project 4 impacts on people residing or working in the vicinity of a private airstrip would be less than significant. **(DEIR at 4.8-16, 17)**.

Emergency response and evacuation procedures for Project 4 would be coordinated by the Los Angeles County Sheriff's Department ("LACSD") and the Los Angeles County Fire Department ("LACFD"). During Project 4 construction activities, the LACSD and LACFD require that adequate vehicular access be provided and maintained. The Traffic Control Plan for Project 4 would provide for the required access of emergency vehicles during construction activities. During operation of Project 4, Project operation staff would work with both the LACSD and the LACFD to ensure adequate emergency procedures are in place. The HMBP would include an Emergency Response Plan. Additionally, an Emergency Action Plan and a Fire Prevention Plan would be prepared for Project 4 as required by Cal/OSHA. These plans would ensure that Project 4 would have established plans and procedures for responding to emergency situations, and would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, Project 4 impacts to emergency response plans or emergency evacuation plans would be less than significant during both construction and operations. **(DEIR at 4.8-17)**.

Project 4 is not located within a Very High Fire Hazard Severity Zone. No impact would occur in this regard. **(DEIR at 4.8-17)**. A public water system for fire control does not exist near Project

4. The facility design includes a dedicated 10,000-gallon fire water storage tank to be installed and maintained at Project 4, in compliance with LACFD Regulation 19 and other applicable Fire Department water tank specifications. Because the SGF design includes a dedicated fire water tank meeting Fire Department requirements, the water and pressure would meet fire flow needs. Therefore, impacts would be less than significant. **(DEIR at 4.8-18)**.

Project 4 is surrounded by rural agricultural lands with no industrial uses, manufacturing uses, or other particularly high fire hazard uses in the vicinity. Project 4 would comply with all applicable Fire Code and County and City ordinance requirements, and fire safety standards, as stated in DEIR Section 4.12 Public Safety. A Fire Management Plan, which would be prepared for Project 4, establishes standards and practices that would minimize the risk of fire and, in the event of fire, provide for immediate suppression and notification. Therefore, a less than significant impact would occur. **(DEIR at 4.8-18)**.

Project 4 will convert sunlight into electrical energy through a process which would not constitute a fire hazard. All materials and equipment used in the construction of each facility would be specified based on applicable codes and building regulations. Welding activities may also potentially result in the combustion of brush and vegetation. A Fire Protection and Prevention Plan would reduce these potential impacts to less than significant. A Fire Prevention Plan would be prepared for Project 4 as required by Cal/OSHA, and Project 4 would include a dedicated 10,000- gallon fire water storage tank in compliance with LACFD Regulation 19. Therefore, Project 4 does not constitute a potentially dangerous fire hazard, and would have a less than significant impact on fire hazards in the area. **(DEIR at 4.8-19)**.

Project 4 impacts related to Hazards and Hazardous Materials are further reduced with the adoption of the following feasible mitigation measures:

HH-1 Prior to the start of construction activities, a Hazardous Materials Management and Hazardous Waste Management Plan shall be implemented for each project.

HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.

HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated.

2.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Project 4 would have a potentially significant impact on Hydrology and Water Quality if it would: violate any water quality standards or waste discharge requirements; 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; 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; 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; 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; generate construction or post-construction runoff that would violate applicable stormwater National Pollutant Discharge Elimination System ("NPDES") permits or otherwise significantly affect surface water or groundwater quality; 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); result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance; 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); otherwise substantially degrade water quality; 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; place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain; 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; or place structures in areas subject to inundation by seiche, tsunami, or mudflow.

Finding:

Changes or alterations have been required in, or incorporated into Project 4 which mitigate or avoid the potentially significant environmental effects related to Hydrology and Water Quality.

Facts Supporting the Finding:

A Notice of Intent form would be submitted to the State Water Resources Control Board ("SWRCB") to apply for coverage under the NPDES General Permit for construction of Project 4. During construction, Project 4 would implement BMPs as specified in the site-specific SWPPP. The SWPPP would be developed by a State of California certified Qualified SWPPP Developer ("QSD") and during construction monitored by a State of California certified Qualified SWPPP Practitioner ("QSP"). The SWPPP would be approved by the County and uploaded to the State via the State SMARTs system prior to Project 4 ground-breaking. The SWPPP would identify construction-phase BMPs to be implemented. With implementation of the BMPs, Project 4 and its associated gen-tie lines would only have the potential to generate less than significant effects on groundwater and/or stormwater runoff, and will not violate any water quality standards or waste discharge requirements during construction. **(DEIR at 4.9-34; 4.9-38)**.

During Project 4 operations, mechanical equipment on the solar farm would either be made of pollutant free materials or fitted with special containment units to house any possible drips or

spills of lubricants, oils, or other chemicals. Maintenance activities, including solar array washing, would be performed with clean water and allowed to evaporate or drip to the ground. Maintenance and operations personnel would be required to maintain all necessary spill prevention, control, and countermeasures on hand during site visits. These spill response kits would include, but are not limited to, personal protective equipment, spill pads, absorbents, booms, shovels, garbage bags, plastic sheeting, and disposal drums. Permanent treatment BMPs would include infiltration basins to preserve water quality. With these spill prevention, control, and countermeasures on-site, there would be a less than significant impact on groundwater and stormwater runoff quality, and Project 4 will not violate any water quality standards or waste discharge requirements during operation. **(DEIR at 4.9-34; 4.9-38).**

As stated in Section 4.14.5 of the DEIR, water would be required for dust control measures during the duration of construction efforts. An analysis of the water supply, including the use of well water, is presented in DEIR Section 4.14 Utilities and Service Systems. At the outset of construction, water would be supplied via truck to meet the demands of Project 4. Well water is not considered available at this time, and would be reevaluated upon a change in status. The demands of Project 4 are anticipated to have a less than significant impact on the region's groundwater supplies. Furthermore, construction activities are not anticipated to interfere substantially with groundwater recharge. As stated in Section 4.14.5 of the DEIR, water may be required in the first few years of operation to establish the mature vegetation planted after construction. Similar to the construction period, water would be supplied via truck to Project 4. The volume of water required would be considerably less than the water required for construction activities. Well water would be considered if its availability changes. As with construction, impacts to the region's groundwater supplies are anticipated to be less than significant with operation of Project 4. Also, the effect on groundwater recharge by the development's increase in impervious surface will be mitigated by the proposed infiltration basins. These infiltration basins will allow the increase in runoff volume from the proposed development (up to the 25-year storm event) to infiltrate on-site and recharge the groundwater basin. Therefore, less than significant impacts to groundwater recharge are anticipated. **(DEIR at 4.9-35)**.

During construction of Project 4 and its associated gen-tie lines, soils would be disturbed through activities such as minor grading and vegetation removal, which could lead to issues with soil erosion and siltation on- and off-site. Through the implementation of construction control measures per California Association of Stormwater Quality Agencies ("CASQA") standards (silt fencing, fiber rolls, and sandbag barriers), Project 4 would have less than significant impacts on erosion and debris deposition during construction (CASQA 2003). Project 4 and its associated gen-tie lines would require minor grading on-site which would not drastically change the existing drainage patterns or natural channels. Best Management Practices and the Hydrology Study/Drainage Concept/Standard Urban Stormwater Mitigation Plan ("SUSMP")/Low Impact Development ("LID") Reports would help account for the increase in runoff erosion capabilities resulting from the developments' increase in impervious surfaces. The infiltration basins would help reduce flow velocities and the sediment load of the runoff, which would lower the erosion and siltation capabilities of the runoff. Therefore, Project 4 would result in less than significant impacts to erosion and siltation on- and off-site. **(DEIR at 4.9-36)**.

Project 4 and its associated gen-tie lines would require minor grading on-site, which would not drastically change the existing drainage patterns or natural channels. The increase in runoff flow rates and volumes from the developments' increase in impervious surfaces would be addressed by Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to pre-development flow conditions before leaving the project site. With this measure, less than significant impacts would occur related to flooding on- and off-site. **(DEIR at 4.9-36)**.

Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would address the increase in runoff flow rates and volumes from the developments' increase in impervious surfaces. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to predevelopment flow conditions before leaving the Project site. The basins would be placed within the first half of the site to allow flows over the roads sections enough time to normalize before leaving Project 4. Project soils would treat the captured runoff at the infiltration basins. Therefore, less than significant impacts to existing or planned stormwater drainage systems are anticipated. Also, significant impacts to polluted runoff are not anticipated. **(DEIR at 4.9-36)**.

Project 4 and its associated gen-tie lines would incorporate Los Angeles County LID standards, while following the requirements of the Los Angeles County Department of Public Works ("LACDPW"). Existing on-site drainage patterns and channels would not be significantly altered by the Projects' minimal grading, and all off-site drainage patterns and channels would not be significantly impacted either. Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would allow the developments' increase in runoff (up to the 25-year storm event) to be both infiltrated and treated on-site. This also minimizes downstream impacts by returning to predevelopment flow conditions. Therefore, Project 4 will not conflict with the Los Angeles County Low Impact Development Ordinance. **(DEIR at 4.9-38)**.

Project 4 and its associated gen-tie lines are not in the vicinity of any SWRCB-designated Areas of Special Biological Significance. Therefore, no impacts are anticipated. During construction, wastewater treatment systems would not be necessary. The Projects would contract services to supply and maintain portable toilets. Therefore, the impacts of Project 4 to the quality of groundwater and surface water would be less than significant during construction. The same portable toilet services would be contracted for operations. Temporary portable toilet services would be delivered during the required maintenance periods on an as needed basis. As a result, there would be less than significant impacts to the water quality of groundwater and surface water during Project 4 operations. **(DEIR at 4.9-39)**.

Project 4 is located within a 100-year flood hazard area. Some of the proposed infiltration basins within the Project 4 site, created by elevated road sections, cross the 100-year flow areas. Once full, runoff will flow over the elevated road section. These basins have been placed in the first half of the Project 4 site, to allow the flows to normalize and return to their pre-development sheet flow condition before leaving the site. Therefore, the proposed basins will not significantly

impede or redirect the flood flows. **(DEIR at 4.9-40)**. Project 4 does not involve the construction of housing. Therefore, no housing will be placed within a 100-year flood hazard area, and no impacts are anticipated. **(DEIR at 4.9-39)**.

Project 4 and its associated gen-tie lines are not within the immediate vicinity of any levees or dams which would place people or structures at risk of significant loss, injury or death in the event of a failure. In the event of a failure of the aqueduct near Project 4, the distance between the site and the aqueduct would allow the flow to dissipate. Therefore, less than significant impacts are anticipated. Project 4 has slopes that very mild, at less than two percent. Therefore, high mudflow conditions are not anticipated. Accordingly, Project 4 will not place structures in an area subject to inundation by seiche, tsunami or mudflow. **(DEIR at 4.9-40)**.

Project 4 impacts related to Hydrology and Water Quality are further reduced with the adoption of the following feasible mitigation measures:

HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be available at each project site and a log kept to show education has occurred prior to the start of construction.

HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-3 No hazardous materials are anticipated to be stored on-site. If hazardous materials are required to be stored on-site, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code and store the materials according to applicable regulations. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance with the current requirements of the County of Los

Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often to prevent containers from overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.

2.10 LAND USE AND PLANNING

Potential Effect:

Project 4 would have a significant effect related to Land Use and Planning if it would: physically divide an established community; be inconsistent with 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; be inconsistent with the zoning ordinance as applicable to the subject properties; or conflict with Hillside Management criteria, Significant Ecological Areas conformance criteria, or other applicable land use criteria.

Finding:

Project 4 will not have a significant effect on the environment related to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

Project 4 is located within a sparsely populated area, and is not located within any established community. The closest established community is Antelope Acres, which is located approximately 1.4 miles north of Project 3, the nearest of the six Project sites. Project 4 is located in an area that has been characterized by agricultural uses for several decades, and has been in transition to residential uses or vacant land. Project 4 would not physically alter the community, would not divide any community, or change any public access routes to them. Impacts would be considered to be less than significant. Likewise, Project 4's proposed gen-tie lines would not result in physical improvements that would result in dividing an established community, and the proposed gen-tie line would be located within a public right-of-way or an easement on private land. Therefore, Project 4 would not divide an established community, and impacts would be less than significant. **(DEIR at 4.10-36)**.

Project 4 is not located within the boundaries of a Community Standards District; therefore, no district development standards apply to Project 4. The Antelope Valley Areawide General Plan designates the Project 4 site as N-1, Non-Urban use. According to the Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations (County of Los Angeles 1986). Project 4 is considered a utility installation, and therefore would be consistent

with the N-1 land use designation. As a result, Project 4 would be consistent with the General Plan Land Use designation. Development of Project 4 will be consistent with permissible uses associated with the land use designation and the policies, goals, and objectives outlined in the Los Angeles County General Plan and the Antelope Valley Areawide General Plan, and will not be inconsistent with any applicable County plan. **(DEIR at 4.10-36)**.

The gen-tie lines for Project 4 are linear infrastructure that would not result in any changes to the existing land use patterns in the area of Project 4. The gen-tie lines would be located underground within Los Angeles County to the extent practicable, and aboveground within the City of Lancaster, either in a public road ROW or on private lands adjacent to the public road ROW. Within the City of Lancaster, the gen-tie line routes would traverse land use designations "NU" Residential and "UR" in the City of Lancaster. According to the County's Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations. Additionally, the City's NU land use designation permits solar generating facilities and utility installations within its designation. In July 2013, the City approved a General Plan Amendment for the UR designation to NU designation for another applicant's solar project that the gen-tie line would traverse to connect to the Antelope Substation. A franchise agreement will be obtained by the Applicant with the City of Lancaster for the gen-tie line that will traverse through this jurisdiction. This agreement will grant a utility franchise and right of way privileges for the proposed gen-tie line. Therefore, no impact to County and City Plans would occur**.** **(DEIR at 4.10-37)**.

The Project 4 site and its associated gen-tie line would not be located within the Fox Airfield's airport influence area ("AIA"). **(DEIR at 4.10-37)**.

The County's CUP entitlement process involves the discretionary review of a project, whereby conditions of approval for Project 4 would be assigned. A CUP Burden of Proof is required to be submitted to determine Project 4's consistency with the General Plan, compatibility with surrounding land uses, conditions to ensure compatibility, land suitability and physical constraints, project design, availability of adequate access, public services and facilities to serve the development, and identify potential environmental impacts and mitigation measures. As shown in DEIR Tables 4.10-1, 4.10-2, and 4.10-3, Project 4 is consistent with County land use designations and compatible with adjacent and surrounding land uses. **(DEIR at 4.10-43)**. The implementation of the environmental mitigation measures and CUP conditions would be expected to minimize Project 4's potential impacts, such that the Project could occur while maintaining zoning compliance within the designated zone. As a result, Project 4 would be consistent with the County's zoning designations. Permitting processes for those portions of the gen-tie lines located in the City of Lancaster would require necessary approvals from the City. Compliance with applicable City zoning regulations and conditions would ensure consistency with City's zoning designations. **(DEIR at 4.10-38)**.

Project 4 and lands adjacent to its associated gen-tie line ROW are located within the County's Heavy Agriculture (A-2) Zone. Project 4 is considered equivalent to an electric generating plant. Under the County zoning code for the A-2 zoning designation (Los Angeles County Code Section 22.24.150), electric generating plants and transmission substations are allowed in the A-2 zones with the issuance of a CUP. Lands adjacent to the gen-tie line for Project 4 would consist of the City's RR 2.5 Zone. The proposed gen-tie lines would be constructed underground within

Los Angeles County unless other applicable regulations require above-ground installation and aboveground or underground within the City of Lancaster. The gen-tie lines would be located on private lands adjacent to the public road ROW or within the public road ROW. They are linear facilities that would not result in any changes to the existing land use patterns in the Project 4 area, and would be permitted as part of respective County CUP and City permitting requirements. **(DEIR at 4.10-38)**. As a result, implementation of Project 4 and its associated gen-tie lines would be expected to be consistent with County and City zoning designations, and would result in a less than significant impact relative to the A-2 zoning in Los Angeles County and the RR 2.5 zoning in the City of Lancaster.

As discussed in DEIR Section 4.4 Biological Resources, Project 4 and its associated gen-tie lines are not located within a designated SEA; therefore, SEA conformance criteria do not apply. Project 4 and the area for its associated gen-tie lines contain generally low slopes of less than 1 percent gradient, and would not be located within or conflict with designated Hillside Management Areas. Therefore, no impacts would occur. **(DEIR at 4.10-39)**.

Project 4 is located within an Agricultural Opportunity Area, as discussed in Section 4.2 of the DEIR. Project 4 would generate electrical power through renewable solar PV technology which is an allowable use with a CUP. Project 4 would convert land that was formerly used for agricultural production, to renewable energy production. Construction and operation of Project 4 would not involve other restrictions, obstructions, or resources that could result in conversion of farmland to nonagricultural use. Additionally, Project 4 would be located on fallow land that is currently not irrigated, with surrounding parcels being mostly undeveloped and fallow agricultural land. Project 4 would produce power in a passive manner and would result in minimal air emissions, traffic, and noise, and would not affect adjacent agricultural operations. Therefore, a less than significant impact would occur. **(DEIR at 4.10-40)**.

Project 4 contains 113.7 acres of Prime Farmland and 43.4 acres of Farmland of Statewide Importance; however, as discussed in DEIR Section 4.2 Agriculture and Forestry, these designations will be re-classified to “Grazing Land”. Once the designations are updated, Project 4 will have no impact to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. **(DEIR at 4.10-40)**. Project 4 is not located within a Noise Management Area. **(DEIR at 4.10-41)**.

Portions of the Project 4 site are located within the 100-year (Zone A) and portions are located within the 500-year (Zone X, Shaded) floodplains. The Project 4 gen-tie line in its entirety would be located within the 500-year floodplain (Zone X, Shaded). All of the Project 4 site would be developed, and measures would be taken in the design of the site’s solar panels and gen-tie line, to account for the flood hazards. Therefore, a less than significant impact would occur. **(DEIR at 4.10-41)**.

2.11 NOISE

Potential Effect:

Project 4 would have a significant Noise impact if it would: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise

ordinance, or applicable standards of other agencies; result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the project; result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or, for a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Finding:

Changes or alterations have been required in, or incorporated into Project 4 which mitigate or avoid the potentially significant environmental effects related to Noise.

Facts Supporting the Finding:

Construction of Project 4 would take place between the second and fourth quarters of 2014. Sound generated from Project 4 would consist of: (1) short duration sounds resulting from construction activities, and (2) sound during normal facility operations. Vibration from Project 4 would only result during construction. Construction activities would take place only during daytime hours. An evaluation of expected noise and vibration levels was performed, and the ability of Project 4 to comply with applicable noise requirements was assessed.

The Draft EIR determined that the construction noise for Project 4 would be similar to that of Project 1; therefore, the Draft EIR's discussion of Project 4's noise impacts focused on the differences between Project 1 and Project 4, namely received sound levels at the nearest noise sensitive receptor. **(DEIR at 4.11-37)**. These Findings refer to certain facts from the Draft EIR's discussion of Project 1 noise impacts that are also applicable to Project 4.

For Project 4, the following criteria were determined to be inapplicable or to result in no impact:

- Exposure of on-site workers to noise levels that exceed occupational safety standards (90 dBA as a time-weighted 8-hour average or peak noise levels above 115 dBA).

- Exposure of residents to airport or private airstrip-related noise levels above a CNEL of 65 dBA.

Occupational noise exposure is governed by federal and state regulations. Cal/OSHA administers industrial safety regulations in California. Cal/OSHA regulations establish a time-weighted noise exposure limit of 90 dBA averaged over 8 hours (CCR, Title 8, Article 105). Noise source controls, administrative procedures, or worker hearing protection must be provided if worker noise exposure would exceed the 90 dBA limit. The construction contractor selected for the Project would be required to follow Cal/OSHA requirements for construction worker noise exposure. **(DEIR at 4.11-25; 4.11-30)**.

Sound from construction equipment would vary, depending on the construction phase and the number and class of equipment at a location at any given time. Actual received sound levels would fluctuate, depending on the construction activity, equipment type, and separation distances between source and receiver. **(DEIR at 4.11-30)**. Construction noise is a temporary noise source that would only occur during daytime hours. Sound levels from construction are expected to be comparable to sound produced by farm machinery, such as equipment used in nearby agricultural fields. Worst case construction noise levels for the nearest residence would last no more than a few weeks, as construction activities progress across Project 4. Therefore, no one residence would be exposed to significant noise levels for any extended period of time. **(DEIR at 4.11-27)**.

Sound from pile driving would attenuate to 94 dBA at the nearest residence to Project 4, and would attenuate to below 60 dBA within 1 linear mile of this construction activity, depending on meteorological and topographical effects. The average noise level from pile driving is predicted to be 71 dBA, similar to the level resulting at the Project centroid located 887 feet from the nearest residence. Because sound levels would be higher than 60 dBA at times, and up to 88 dBA at the closest residence, an exceedance of the County's construction noise level limits is anticipated. Therefore, where pile driving is planned to occur within 3,000 feet of an occupied noise sensitive receptor, an acoustic curtain or sound barrier with a sound transmission class of 19 or greater will be used to reduce received sound levels at the noise sensitive receptors to levels at or below the County's construction noise limit of 60 dBA. Pile driving is expected to last more than 10 days, and a variance from the County of Los Angeles noise ordinance will be required. **(DEIR at 4.11-38)**.

Traffic noise generated during construction of Project 4 on and offsite would temporarily add to overall sound levels. As a general construction practice, functional mufflers would be maintained on all equipment to maintain noise levels as low as reasonably achievable. The Project 4 Applicant would make reasonable efforts to minimize noise resulting from construction activities, as described in Mitigation Measures N1 - N6. In sum, with mitigation measures implemented, including the use of sound curtains or barriers during pile driving, construction sound levels would be less than significant. **(DEIR at 4.11-27; 4.11-31)**.

The average vibration level generated by Project 4 construction activities will be 0.02 PPV, which would be just more than barely perceptible to humans. Similar to the noise from pile driving, vibration from pile driving would only last for a few weeks at most, and would move throughout the Project rapidly with no single noise sensitive receptor experiencing the peak 0.3 PPV for more than an few hours, which will be perceptible but will not damage structures. Therefore, exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels due to the construction of Project 4 and the gen-tie line will be less than significant. **(DEIR at 4.11-49)**.

General William J. Fox Airfield is located four miles from Project 4. Bohunk's Airpark is located 500 feet from Project 4, and Little Buttes Antique Airfield is located 4.3 miles from Project 4. Bohunk's Airpark and Little Buttes Antique Airfield both have very low use levels. No airfield noise contours have been developed for Bohunk's Airpark or Little Buttes Antique Airfield, but due to low operation levels and separation distance from Little Buttes Antique Airfield, sound levels are assumed to be below 55 dBA CNEL. Sound contours have been

produced for General William J. Fox Airfield; however, Project 4 is beyond the area included in the airport's land use compatibility plan (Los Angeles County Airport Land Use Commission 2004). As a result, no aviation land use restrictions are required. Additionally, Project 4 would not create residential land uses, and all Project features are outside of airport area of influence. Consequently, there are no impacts from airport-related noise. **(DEIR at 4.11-52)**.

Once operational, Project 4 would generate power using PV modules mounted in rows of parallel racks. The Project is anticipated to be unmanned during normal operation. Systems monitoring would be completed remotely and onsite staff would be limited to repair or cleaning of the PV modules. Maintenance staff would visit two times per year to clean the PV modules, seasonally to clear vegetation, and as needed to perform other general maintenance activities. **(DEIR at 4.11-35)**. Sound sources considered in the operational acoustic analysis include the inverters and transformers associated with the PV modules, the substation, and the transmission line. The principal sources of noise are the cooling-ventilation fans, the electrical components of the inverters and the step-up transformers at the on-site substations. Noise generated by this equipment would be less than significant. Gen-tie lines for Project 4 would be above ground, and could be a source of corona noise. However, because corona noise is typically attributed to higher voltage lines of approximately 345 kV and above, noise complaints from the Project's lower voltage transmission lines (66 kV) are not anticipated. Operational sound sources are all predicted to be less than 35 dBA at nearby noise-sensitive receptors, and would be less than significant. **(DEIR at 4.11-38 to 4.11-40)**.

Project 4 impacts related to Noise are further reduced with the adoption of the following feasible mitigation measures:

N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.

N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.

N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.

N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.

N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.

N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.

N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest noise sensitive receptor are predicted to be above the County construction noise limit of 60 dBA during the day. With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may need to incorporate appropriate mitigation measures, including:

N-8 Siting substations to achieve National Electrical Manufacturers Association ("NEMA") sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project:

- Project 4 (two transformers) – 1,000 feet with a NEMA sound rating of 77 dBA

N-9 The Applicant shall use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.

2.12 PUBLIC SERVICES

Potential Effect:

Project 4 would have a significant impact on Public Services if it would 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 fire protection; sheriff protection; schools; parks; libraries, or other public facilities.

Finding:

Project 4 will not have a significant effect on the environment related to Public Services. No mitigation is required.

Facts Supporting the Finding:

Project 4 is located within the LACFD Battalion 11 service area. Station 112, which is 3.6 miles north of Project 4, is the jurisdictional station (i.e. the first-responder) to respond to incidents at the site. Additional fire stations within Battalion 11 (identified in DEIR Table 4.12-1) would also potentially be dispatched to respond to fire protection needs at the site. **(DEIR at 4.12-8)**.

During construction, workers would be temporary and would not be expected to relocate to the Project 4 area, as they would mostly be hired from the available local workforce, and would not be expected to result in significant changes to the local population; therefore, the construction of Project 4 is not anticipated to create significant changes to the local population that would increase the level of demand on fire protection services or that would increase the level of demand on the fire department services such that additional staff would be needed. **(DEIR at 4.12-8)**.

As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 4 would not result in significant traffic impacts. However, Project 4 would involve construction of an underground 0.02-mile gen-tie across West Avenue J and an underground 0.02-mile gen-tie across 90th Street West. Transmission line construction would require work in the public road ROW, including limited encroachment into the traveled roadway. It is anticipated that the construction of the Project 4 gen-tie lines would only require partial street closures, which provide better emergency access than full street closures. It is proposed to require worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts to 90th Street West and West Avenue J. Additionally, the LACFD Fire Stations 84, 112, and 130 would be notified at a minimum of three days in advance of any street closures that may affect fire/paramedic responses in the area. In the event that Project 4 would require street closures, alternate route details (detour plans) and the schedule of closures would be submitted to the LACFD prior to construction. Implementation of TT-3 traffic mitigation measure would be expected to minimize potential effects to 90th Street West and West Avenue J such that the impact to LACFD access and response times would be less than significant. **(DEIR at 4.12-8, 9)**.

Based on the Applicant's commitment to conformance of construction activities at the Project 4 site and gen-tie line ROW to federal, state, and Los Angeles County ordinances for fire protection, and implementation of mitigation related to Hazards and Hazardous Materials, construction would not be expected to result in significant special fire problems or hazards. Additionally, construction traffic at the site would not be anticipated to have a significant impact on local intersections and road segments. Therefore, Project 4 impacts to LACFD service ratios, response times, or other performance objectives for fire protection would be less than significant. **(DEIR at 4.12-9)**.

Operations activities at Project 4 would typically be associated with routine maintenance carried out on-site and along the associated gen-tie ROWs at periodic intervals by a small maintenance crew. These activities would not result in effects to LACFD service ratios, response times, or other performance objectives for fire protection during operations of Project 4; therefore, impacts would be less than significant. In addition, the Applicant would be required to pay taxes as per the Proposition E Special Tax and property tax assessments, which are allocated to the LACFD.

These taxes are designed to provide for potential increases in LACFD fire protection service demands to accommodate for new and existing developments. **(DEIR at 4.12-11).**

The Project 4 site is located within the LACSD Field Operations Region 1 service area. The Lancaster Station, which is approximately 8.6 miles east of Project 4, would likely be the first responder to incidents at the site. Currently the station maintains an officer-to-population service ratio of approximately 1 to 1,000. Project 4 does not involve any residential uses, and would not be considered to result in significant increases to population. During construction, workers would be temporary, and would not be expected to relocate to the area as they would mostly be hired from the available local workforce. The employees are planned to be hired from the available local workforce, and would not be expected to result in significant changes to the local population that would increase the level of demand on law enforcement services. **(DEIR at 4.12-13)**.

Sheriff services potentially required at Project 4 would likely include incidents of vandalism or theft. While these incidents would require sheriff services, they are not considered emergency response incidents, and as such would not affect emergency response times. As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 4 would not result in significant traffic impacts, and any impacts associated with street closures due to installation of the underground gen-tie lines will be addressed through the use of worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts to 90th Street West and West Avenue J. Therefore, impacts from the construction of Project 4 to LACSD service ratios, response times, or other performance objectives for sheriff protection would be less than significant. **(DEIR at 4.12-13)**.

Project 4 and its associated gen-tie lines do not include residential development or the influx of long-term workers from outside the area, and accordingly would not generate population growth. Consequently, no new demands on school facilities, parks, library facilities or other public facilities are expected, and no impact would occur to these facilities. **(DEIR at 4.12-15; 4.12-16)**.

2.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Project 4 would have a significant impact on Transportation and Traffic if it would: 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; conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks; substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); result in inadequate emergency access; or conflict with adopted policies, plans or

programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Finding:

Changes or alterations have been required in, or incorporated into Project 4 which mitigate or avoid the potentially significant environmental effects related to Transportation and Traffic.

Facts Supporting the Finding:

Traffic generated during the construction phase of Project 4 and its gen-tie line would include construction worker commuter trips, water truck trips, and delivery truck trips. Construction worker commuter trips and delivery truck trips are anticipated to arrive to the Project 4 site outside of peak hours. It is anticipated that 30 percent of water trucks would arrive to the Project site during the AM peak hour. Project 4 would have an average of 120 workers per day and a peak of 160 workers per day over a 30-day period during construction. For equipment and materials, Project 4 would have an average of 3 delivery truck trips per day with an expected peak of 26 delivery truck trips. It is anticipated that construction workers and delivery trucks would arrive to the Project 4 site outside of peak hours. **(DEIR at 4.13-33)**.

Dependent upon climatic conditions during construction, the maximum estimated water use for the Project 4 site during both Phase 1 and 2 of construction is 155 acre-feet, which would be obtained from an off-site provider. Potable water would be brought in to the Project 4 site for drinking and domestic needs. During the site preparation and grading activities, water would mainly be used for soil compaction and control of fugitive dust generation. Subsequent to these construction activities, water usage would primarily be used for on-going dust suppression associated with the remaining construction of the Project. Project 4 would require a total of 32 daily water truck trips arriving on-site. Assuming that 30 percent of the water trucks would arrive on-site during the AM peak hour (7:00 AM), 10 water trucks were used in this analysis. As shown in DEIR Tables 4.13-19 and 4.13-20, the local roads would experience a maximum increase in traffic volume of 40 percent during the AM peak hour. This is mainly due to the existing low volume and low peak traffic conditions for these roads, which are located in rural areas and operate well below the existing capacity of 1,600 vehicles per lane per hour for a 2-lane road. Therefore, it is concluded that these roads have adequate capacity to safely accommodate the increase from water truck traffic and would have a less than significant impact on the existing traffic conditions. **(DEIR at 4.13-34)**.

During construction of gen-tie lines associated with Project 4, it is anticipated that temporary, one-lane road closures would be necessary. A Project Traffic Plan would be prepared to address the temporary one-lane road closures and submitted to the County for approval prior to issuance/approval of the County Grading Permit, as indicated in Mitigation Measure TT-2. Parking, temporary office trailers, and construction and PV equipment lay-down areas would be located entirely within the Project 4 site boundary. The construction traffic impacts would be temporary, and less than significant with mitigation. **(DEIR at 4.13-34)**.

The operational phase of Project 4 is anticipated to only generate an average of 4 additional vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a

maximum of 12 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis for the water truck trips described above, the operational phase vehicle trips are considered negligible. Therefore, no additional post-construction operational analysis was conducted. The operational phase of Project 4 would have a less than significant impact on the traffic and/or transportation infrastructure. **(DEIR at 4.13-35)**. Project 4 would not conflict with any applicable congestion management programs during the construction or operational phases. **(DEIR at 4.13-39)**.

Air traffic would not be impacted by Project 4. Project 4 would not include any buildings, structures, or other operations that would result in a change in existing air traffic patterns. The PV modules that would be used at the Project 4 site would be non-reflective and would not pose a hazard to air traffic. Gen-tie line components would be below the height limit and would not result in a change in existing air traffic patterns. Therefore, impacts would be less than significant. **(DEIR at 4.13-39)**.

No existing roads would be altered by Project 4, and Project 4 does not include design features or uses that would substantially increase any hazards. Parking, temporary office trailers, and construction and PV equipment lay-down areas would be located entirely within the Project 4 site boundary. Only temporary one-lane road closures are expected for the construction of the Gen-tie Lines. A Project Traffic Plan would be prepared to address the temporary one-lane road closures and submitted to the County for approval prior to issuance/approval of the Grading Permit. Therefore, Project 4 would not result in inadequate emergency access. Project 4 is located in rural areas of Los Angeles County and would not significantly decrease the performance or safety of public transit, bicycle, or pedestrian facilities. **(DEIR at 4.13-40)**.

Project 4 impacts related to Transportation and Traffic are further reduced with the adoption of the following feasible mitigation measures:

TT-1 Prior to issuance of a grading permit, Applicant shall document and submit all required information and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.

TT-2 Prior to any construction activities and/or issuance of required encroachment permits from Los Angeles County, the Applicant shall prepare worksite traffic control plans for review and approval from LACDPW and other affected agencies for any closures, partial closures of public streets, or work within or adjacent to the road right-of-way that impacts the movement of traffic. The Plans shall be prepared in accordance with the California Manual on Uniform Traffic Control Devices (2012).

TT-3 Additionally, the County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-000798, 00799, 00805,00807, & 00833) shall be notified at least three days in

advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.

TT-4 Stagger construction work shifts before or after peak traffic hours.

TT-5 Schedule truck deliveries during off peak hours.

TT-6 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips. All other trips shall be at off peak hours.

TT-7 Prior to start of construction activities, Applicant shall provide worker education encouraging carpooling and vanpooling by workers and shall provide assistance for organizing vanpools and carpools. A log will be developed to show compliance.

2.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Project 4 would have a significant impact on Utilities and Service Systems if it would: exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards; 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; 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; not 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; 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; be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or 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.

Finding:

Project 4 will not have a significant effect on the environment related to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

The construction of Project 4 and its associated gen-tie lines would generate temporary and limited wastewater as a result of on-site construction workers. The wastewater generated would

be collected at the on-site mobile sanitation facilities and then transported to a nearby wastewater disposal facility. In the event that additional wastewater is generated from construction activities, water would be stored in an on-site tank system and would be disposed of at an approved wastewater treatment facility. Construction and operational wastewater will be limited in quantity and significantly below wastewater treatment requirements of Los Angeles County and the RWQCB. **(DEIR at 4.14-14)**.

All wastewater would be treated according to the treatment requirements enforced by the NPDES permit authorized by the Lahonton Regional Water Quality Control Board ("LRWQCB"). Additionally, semi-annual washing of the PV modules would generate minimal wastewater during operation. However, since the wash water would only consist of demineralized water and dust washed off of the modules, it would not need to be treated at a wastewater treatment facility. This wash water would be allowed to infiltrate into the ground and evaporate as it drips off the PV modules. The wastewater generated from maintenance workers would be collected at the on-site temporary mobile sanitation facilities and then transported to a nearby wastewater treatment facility. Project 4 would not exceed the requirements of LRWQCB, and therefore impacts would be less than significant. **(DEIR at 4.14-14)**. Likewise, construction and operation of Project 4 would not exceed the capacity of any treatment plant, and would have no impact to a wastewater system. Consequently, no new wastewater treatment facilities would need to be created and no existing facilities would need to be expanded. The maximum construction water use of Project 4 is 155 acre feet, and the maximum operational water use of Project 4 is 7.6 acre feet per year. No water system capacity problems would be created, and no new water systems or expansion of existing systems would be required. **(DEIR at 4.14-16, 17)**.

Project Site 4 currently drains from southwest to northeast; the post-development condition would maintain this flow path. A SWPPP incorporating BMPs for temporary stormwater management would be prepared and approved before the construction of Project 4 and its gen-tie lines. The final design of Project 4 would allow the pre-development runoff amount to continue to sheet flow in the post-development condition to avoid disturbance to downstream drainage structures or wildlife. The design of Project 4 would eliminate the need for new drainage facilities or expansion of existing facilities. Therefore, Project 4 would have a less than significant impact on drainage facilities. **(DEIR at 4.14-18)**.

The construction for Project 4 and the Project 4 gen-tie lines would create a short-term temporary demand for water, primarily in association with dust control. The Applicant would provide a Dust Control Plan to the County prior to the start of construction activities. The plan would detail site-specific dust control measures designed to minimize water use during construction activities, while minimizing fugitive dust emissions. Project 4's maximum construction water use is 155 ac-ft. It is estimated that the Project 4 site would have potentially historically required at least 658 ac-ft of water per year for agriculture. Thus, the maximum construction water use of Project 4 is substantially less than the best estimate of water use of 658 AFY for agriculture, which was historically the primary land use of surrounding land. Based on potential estimated historic groundwater use at the site, there may be adequate groundwater supply within the western portion of the Basin to meet Project 4's construction water needs. In addition, according to the Antelope Valley Integrated Regional Water Management Plan

("IRWMP"), groundwater is considered a reliable water source in the Antelope Valley Groundwater Basin.

However, given that the Adjudication will not likely be resolved during construction of Project 4, water for Project 4 would be supplied via truck from either Homer LLC, or the City of Lancaster, both of which have provided "Will Serve" letters indicating their ability to meet the water demands of Project 4. Homer LLC would provide out-of- Basin water stored in the Antelope Valley Water Bank. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**.

As previously discussed, the potential estimated historical agricultural water usage for the Project 4 site was determined to be at least 658 AFY. Project 4's maximum construction water use is 155 ac-ft, which equates to 76.4 percent less than the potential estimated historical annual agricultural groundwater usage at the site. Either of the sources noted above would have sufficient reliable water supplies available to serve the Project 4 construction demands from existing water source entitlements and water resources. Therefore the impacts from water usage during construction would be less than significant. **(DEIR at 4.14-23)**.

During operations, the maximum water use for Project 4 would be 7.6 AFY, which equates to a little over 1 percent of the historical groundwater usage at the site. A maximum of 7.1 AFY of additional water may be needed in the first 2 years of operation to establish the plants for the landscaping buffer. It is unlikely, but possible that additional water (up to 7.1 AFY) may be needed later during the operations phase for supplemental plantings if landscape vegetation expires and has to be replaced. **(DEIR at 4.14-23)**. As with the Project 4 water needs during construction, during operations Homer LLC would also provide out-of-Basin water stored in the Antelope Valley Water Bank. This option would provide a reliable source of water for operations. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**. Therefore, the impacts from water usage during operations would be less than significant. **(DEIR at 4.14-23)**.

Project 4 and its associated gen-tie lines do not require natural gas or propane during construction or operation; therefore there would be no system capacity problems for those utilities. Since natural gas and propane are not needed for Project 4, no new energy facilities would need to be created, and no existing facilities would need to be expanded. Project 4 may require electricity for the construction equipment and for lighting construction activities. The electricity would likely come from one of the existing SCE lines located on the west and south sides of the site. Electricity consumption during construction would be temporary, and would vary depending on the phase of construction. Overall, the construction of Project 4 would require limited electrical consumption that the existing electrical grid has capacity to serve. Therefore,

Project 4 would have a less than significant impact on energy utility system capacity during construction. **(DEIR at 4.14-25)**.

Project 4 would also require electricity for ongoing maintenance operations, lighting, security systems, and other various operational needs. During daylight hours, the electricity needs for Project 4 would be supplied by Project 4's electricity generation. During non-daylight hours, the electricity needs for Project 4 would be provided by either backfeed from the electrical grid, through the proposed gen-tie, or through the existing SCE lines located on the west and south sides of the Project 4 site. Therefore, Project 4 would have a less than significant impact on energy utility system capacity. **(DEIR at 4.14-26)**.

Construction of Project 4 would require some earthwork, demolition of two existing buildings, and installation of the SGF. Solid waste generated from construction of Project 4 and the Project 4 gen-tie lines may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty non-hazardous containers, and vegetation wastes. In accordance with Title 22 Chapter 22.52, 65 percent of construction and demolition debris would be recycled. Any material that cannot be recycled would be properly disposed of at a regional disposal facility. Any defective or broken solar modules would be returned to the manufacturer for recycling. In accordance with Title 22 Chapter 20.87, the Applicant would prepare a Recycling and Reuse Plan and progress reports to implement and document the Project's recycling practices. Therefore, Project 4 impacts on landfill and solid waste disposal capacity would be less than significant. **(DEIR at 4.14-27)**. Once the SGF is installed, there would be minimal waste generated during Project 4 operations; therefore Project 4 will have a less than significant impact on landfill and solid waste disposal capacity during operations. **(DEIR at 4.14-27)**.

Non-hazardous waste generated during construction, operation, and decommissioning of Project 4 (and gen-tie lines) would be transferred by licensed waste hauling contractors and recycled or disposed of in compliance with local and state regulations. Hazardous wastes would be shipped offsite and treated or disposed in accordance with all applicable laws and regulations for hazardous waste management. The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 4. Project 4 would have no impact relative to compliance with existing federal or state regulations pertaining to solid waste, because Project 4 would be required to comply with all relevant regulations during construction, operation and decommissioning. **(DEIR at 4.14-27)**.

SECTION 3.0 FINDINGS REGARDING CUMULATIVE ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

Pursuant to Section 15130 of the CEQA Guidelines, the following findings and statements of fact identify potentially significant cumulative impacts and Project 4's incremental contribution to the impacts discussed in the Final EIR, in the context of the other five Projects and other cumulative projects. For the following environmental resource areas, Project 4's incremental effect is not cumulatively considerable, and no cumulatively significant impact will occur.

3.1 AESTHETICS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Aesthetics.

Finding:

Changes or alterations have been required in, or incorporated into Project 4, which mitigate or avoid significant environmental effects. Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Aesthetics.

Facts Supporting the Finding:

Individually, with mitigation, each of the six proposed SGF Projects can each be expected to have a less than significant impact on aesthetic resources. The Project sites comprise 987.1 acres, or 0.6 percent of the total area within the 5 mile radius. Within the 5-mile radius area, there are 20,909 acres of development listed by individual projects, as shown in DEIR Table 3-7. These development projects, including the Applicant's Projects, comprise 12.6 percent of the area identified in DEIR Figure 3-5 and include solar projects, commercial projects, and residential projects.

From elevated viewpoints, the western Antelope Valley appears as a mosaic of agricultural lands, suburban developments, and open land. From a distance, the proposed SGFs would not appear dissimilar to agricultural fields or existing PV facilities in shape and size. The other solar and real estate developments proposed for the western Antelope Valley would not appear dissimilar to existing land use patterns. From level viewpoints, such as those along local roads, solar or residential/commercial developments would not be prominent unless the observer is directly adjacent to the facility. Because of the flat nature of the Antelope Valley landscape, developments would quickly become less prominent as the viewer travels away from them. In addition, the scenic character on the valley floor is generally low. Existing commercial, residential, and energy developments (including substations, high-voltage transmission lines, distribution lines, and generation facilities) are scattered throughout the valley.

A 12.6 percent level of increase in development within 5 miles of each of the Project sites is not anticipated to be significant from elevated or level viewpoints, because the proposed developments would appear similar to existing developments in the Antelope Valley, and cover only a very small portion of the land within 5 miles of each proposed Project site. Views of open desert lands would still exist, and the flatness of the landscape would limit the prominence of new developments with increasing distance.

The proposed Projects and other proposed projects within the cumulative impacts study area would be individually required to comply with the Los Angeles County General Plan goals and policies, and the Antelope Valley Area Plan policies, as well as applicable ordinances such as the

Los Angeles County Rural Outdoor Lighting District Ordinance, as they are applicable to aesthetic resources, as identified in Section 4.1.3 of the DEIR. Any cumulative aesthetic impacts would be reduced to a level that is less than significant with mitigation by application of these regulations, and mitigation measures A-1 to A-5. **(DEIR at 4.1-114 to 4.1-115)**.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Cumulative impacts to Agriculture and Forestry Resources could occur in the event that Project 4, in conjunction with the six proposed SGF Projects and other cumulative projects results in the area results in a cumulatively significant loss of Important Farmlands or Williamson Act contracted lands.

Finding:

Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable law ordinances regulations and standards.

Projects 1 – 6 are located in a region with significant agricultural uses. However, the Antelope Valley has been historically and is currently limited by water costs and climate conditions. Cumulatively, the Projects would not develop land classified as Prime Farmland or Farmland of Statewide Importance. Project 4 is the only site that currently contains land designated as Prime Farmland and of Statewide Importance. As mentioned above, the DOC is in process of reclassifying Project 4 land currently mapped as Prime Farmland and Farmland of Statewide Importance to Grazing Land on the 2012 edition of the Important Farmland Map for Los Angeles County. The Projects would not be expected to contribute to the overall trend of conversion of agricultural lands to other uses in the Antelope Valley when considered together with other potential cumulative projects in the area. That said, it is contemplated that at the end of the anticipated 35-year life of Projects 1-6, the associated properties could be returned to agricultural use. The Projects' incremental contribution to cumulative agricultural impacts is considered less than significant. **(DEIR at 4.2-9)**.

3.3 AIR QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Air Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 4, which mitigate or avoid significant environmental effects to Air Quality. Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Air Quality.

Facts Supporting the Finding:

Twenty-nine related projects have been identified within the proposed Projects' vicinity; locations are listed in DEIR Figure 4.3-2, "Cumulative Projects in the Region". Of these 29 related projects, there are a number of related projects that have not yet been built or are currently under construction. Since the Applicant has no control over the timing or sequencing of the related projects, and the level of emissions that would be generated by the related projects is uncertain, it is infeasible and speculative to prepare a quantitative analysis to ascertain daily construction emissions that would occur under a worst-case scenario of all 29 related projects being constructed concurrently with the Applicant's six Projects.

For this reason, the AVAQMD was consulted to assess the cumulative impact resulting only from the Applicant's six Projects. The County's EIR consultant (Tetra Tech) met with AVAQMD officials and technical staff at the AVAQMD's office on May 29, 2012, and discussed the proper cumulative Air Quality analysis methodology for the Project pursuant to CEQA. **(DEIR at 4.3-48)**. AVAQMD determined that cumulative impacts from the Applicant's six Projects should be cumulatively quantified based on size, construction equipment per phase, and construction phase duration, and that the related projects should only be qualitatively discussed within the EIR. The cumulative Air Quality analysis was performed based on the direction from AVAQMD, and included the analysis of concurrent construction and operation emissions sources on any one maximum construction day, air dispersion modeling method, and risk assessment method. **(DEIR at 4.3-48)**.

As previously discussed in the analyses above (DEIR Table 4.3-13, "Peak Annual Construction Emissions"; DEIR Table 4.3-20, "Peak Annual Operation Emissions"; and DEIR Table 4.3-22, "Concurrent Health Risk Assessment"), emissions from overlapping construction phases of the Applicant's six projects would not exceed the AVAQMD thresholds on any maximum day or year during construction or operations. **(DEIR 4.3-30; 4.3-49)**.

With respect to the Project's construction-period air quality emissions and cumulative Basin-wide conditions, the AVAQMD has developed strategies to reduce criteria pollutant emissions outlined in the Air Quality Management Plan ("AQMP") pursuant to CAA mandates. As such,

Project 4 would comply with AVAQMD Rule 403 requirements, and implement all feasible mitigation measures. In addition, Project 4 would comply with adopted AQMP emissions control measures. Per AVAQMD rules and mandates and the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects Basin-wide, which would include each of the related projects mentioned below. **(DEIR 4.3-49)**.

By applying AVAQMD's cumulative air quality impact methodology, implementation of Projects 1 – 6 would not result in an addition of pollutants, such that considerable cumulative impacts in conjunction with related projects in the region would occur. Therefore, the emissions of nonattainment pollutants and precursors generated cumulatively by Projects 1 – 6 would be less than significant. Projects are deemed inconsistent with air quality plans when they result in population and/or employment growth that exceeds growth estimates in the applicable air quality plan. The SGF sites would not conflict with or obstruct implementation of the applicable air quality plan, which in this case is the Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area). The Ozone Attainment Plan relies upon future year emission inventories consistent with California Air Resource Board ("CARB") and the adopted General Plan growth projections. As the proposed Projects are not part of an ongoing regulatory program, the AVAQMD recommends Project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed above, peak daily emissions of operation-related pollutants would not exceed AVAQMD significance thresholds.

The combined Projects' emission estimates state that while Projects 1 – 6 would generate air emissions during construction and a minimal amount of GHG emissions during operations, the Projects' incremental contribution, with mitigation, to cumulative air quality impacts do not exceed any air quality significance thresholds and would comply with the applicable AVAQMD AQMP. It should be noted that solar energy provided by the Projects is a much cleaner source of energy than traditional sources used for the generation of electricity, such as the burning of coal, fuel oil, or natural gas. Furthermore, since the percentage of GHG emissions generated by Projects 1 – 6 is so small; Projects 1 – 6 would provide a *de minimis* contribution to significant cumulative impacts caused by other projects in the region (as further discussed in DEIR Section 4.7, Climate Change and Greenhouse Gas). The Projects' emissions of non-attainment pollutants and precursors generated during operations with mitigation would not exceed the AVAQMD Project-level thresholds and are less than significant. As a result, Project-level emissions would not result in a cumulatively considerable contribution, such that results in an increase in air pollutant emissions above those assumed in the regional AQMP. **(DEIR at 4.3-52)**.

3.4 BIOLOGICAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Biological Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 4, which mitigate or avoid significant environmental effects to Biological Resources. Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Biological Resources.

Facts Supporting the Finding:

The total area included in the map in DEIR Figure 3-17 showing a 5.0 mile radius outward from each of the Project 1 – 6 solar sites comprises 165,349 acres. Solar development in the area is 8,086 acres (4.9 percent of the 165,349 acres shown in DEIR Figure 3-17). The Silverado Projects cover 987 acres (only 0.6 percent of the total area). Open space and wildlife mitigation lands would be acquired and preserved in perpetuity for Projects 1 – 6. Since the mitigation lands are intended to comprise higher quality wildlife habitat than those impacted by the Projects, impacts will be mitigated. The permanent nature of the land mitigation and preservation program to be implemented would assure that these new wildlife habitat mitigation lands would always be maintained and enhanced for wildlife values. Therefore, cumulative impacts from the Project would be less than significant. **(DEIR at 4.4-71)**.

3.5 CULTURAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Cultural Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 4, which mitigate or avoid significant environmental effects to Cultural Resources. Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Cultural Resources.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. As described above under impacts specific to Project 4, impacts related to cultural resources would be mitigated to less than significant levels, since the CRHR and NRHP eligible resources in the area would be avoided. Because impacts to cultural resources would be mitigated to less than significant through avoidance, Projects 1 – 6 would not result in an incremental increase in effects on cultural resources when combined with the other

29 projects. Therefore, no significant cumulative impacts would be expected to occur. **(DEIR at 4.5-35)**.

3.6 GEOLOGY AND SOILS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Geology and Soils.

Finding:

Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time.

It is assumed that construction of all of the cumulative projects would comply with all applicable laws, ordinances, regulations and standards, and that geotechnical studies would be performed to assess and mitigate any geotechnical hazards associated with them; therefore, the cumulative projects would not expose people or structures to potential substantial adverse effects. It is also assumed that the cumulative projects would comply with all applicable erosion control and stormwater management laws, ordinances, regulations and standards, therefore the construction of the cumulative projects would not contribute to cumulative soil erosion or loss of topsoil.

Proposed Projects 1 – 6 would not expose the public to adverse effects from strong seismic ground shaking because the Projects would be contained within a secure fenced area at each location and not open to the public. The potential for injury to workers is also quite low as they will not be on-site the majority of the time, and the likelihood that a seismic event would occur when workers are present is quite small. The Projects would also not result in significant soil erosion because the design and construction of the Projects' facilities would comply with all applicable building codes and standards established by regulatory agencies, including Los Angeles County Department of Public Works and the CBC. The proposed Projects 1 – 6 would therefore not contribute incrementally to cumulative impacts resulting from other development within the 5-mile radius. **(DEIR at 4.6-27)**.

3.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Greenhouse Gas Emissions and Climate Change.

Finding:

Changes or alterations have been required in, or incorporated into Project 4, which mitigate or avoid significant environmental effects to Greenhouse Gas Emissions and Climate Change. Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

As defined in CEQA Guidelines Section 15355, a "cumulative impact" is an environmental effect that may result from the combination of two or more environmental effects associated with a proposed project, or from the combination of one or more project environmental effects with related environmental effects caused by other closely related projects. However, in the case of global climate change, the proximity of the Projects to other GHG-generating activities is not directly relevant to the determination of a cumulative impact. Although AB 32 sets statewide targets for future GHG emissions, the scoping plan and other implementing tools of the law are clear that the reductions are not expected to occur uniformly from all sources or sectors. The conclusions related specifically to Project 4, above, highlights the manner by which the proposed Projects intend to meet many of these strategies.

Numerous options exist for project developers to reduce their contribution to city-, county-, and state-wide GHG emissions, while helping to meet the region’s future housing, jobs, and infrastructure needs. However, it is not possible at this time to accurately quantify GHG emissions expected from the related Projects or the GHG reductions anticipated from the above-listed strategies. There is no certain basis for concluding that an emissions increase resulting from the Projects and the related Projects could cause a measurable increase in global GHG emissions sufficient to force global climate change due to the complex physical, chemical and atmospheric mechanisms involved in global climate change.

In addition, the emissions models used for Project-level evaluations do not fully reflect improvements in technology and other reductions in GHG emissions that are likely to occur pursuant to state regulations, such as AB 1493, SB 1368, AB 32, and Executive Order S-3-5, as well as future federal and/or state regulations. Therefore, it is not possible or meaningful to calculate emissions from each of the identified related Projects and compare that with a numeric threshold or reduction target. Projects 1-6 would be consistent with the state’s goals in helping the state meet the RPS (DEIR Table 4.7-17), resulting in a GHG emission profile that is below established thresholds, and include implementation of Mitigation Measures GHG-1 to GHG-5.

Therefore, the Projects do not contribute considerably to cumulatively significant global climate change impacts. **(DEIR at 4.7-31)**.

3.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Hazards and Hazardous Materials.

Finding:

Changes or alterations have been required in, or incorporated into Project 4, which mitigate or avoid significant environmental effects to Hazards and Hazardous Materials. Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Hazards and Hazardous Materials.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all laws, ordinances, regulations and standards. It is assumed that for each of the cumulative projects, Hazardous Materials Management Plans and Hazardous Waste Management Plans would be implemented, a SWPPP would be prepared, and all applicable environmental due diligence would be conducted (i.e., a Phase I ESA). If any of the cumulative projects are within an airport land use plan or airport influence area, the projects would obtain the appropriate authorizations and permitting from the respective Airport Land Use Commission. The cumulative projects would have a less than significant impact with mitigation to hazards and hazardous materials.

Based on the land uses in the surrounding areas (primarily agricultural) and the limited amount and type of hazardous materials to be used as part of the proposed Projects 1 – 6, no significant incremental cumulative impacts associated with environmental safety are expected to occur as a result of the construction and operation of the proposed Projects 1 – 6. Regulations implemented by the Department of Toxic Substance Control ("DTSC"), LACSD, LACFD, and Cal/OSHA would require similar measures be applied to other developments in the region. Therefore, Projects 1 – 6 are not expected to result in significant incremental cumulative impacts related to hazards and hazardous materials. **(DEIR at 4.8-19 to 4.8-20)**.

3.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Hydrology and Water Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 4, which mitigate or avoid significant environmental effects to Hydrology and Water Quality. Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Hydrology and Water Quality.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Project sites, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-3). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws ordinances regulations and standards. Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. As shown in DEIR Table 3-7 and DEIR Figure 3-17, the proposed Projects would entail approximately 0.60 percent of all proposed projects within a 5-mile radius.

All cumulative projects that may be approved and implemented would also assess potential impacts related to hydrology and water quality. The proposed Projects 1 – 6 were found to have less than significant impacts related to erosion, flooding, debris deposition, and stormwater quality, with no off-site impacts. Additionally, the proposed Projects would not result in any significant or unavoidable impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5-mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative impacts associated with other projects in the Projects' region. **(DEIR at 4.9-45)**.

3.10 LAND USE AND PLANNING

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Land Use and Planning.

Finding:

Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6. The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations, and standards. **(DEIR at 4.10-43)**.

Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. Similar potential impacts can result from these projects as from the Projects with respect to consistency with the subject general plan land use plans and policies, impacts to compatibility with surrounding land uses, and regulatory compliance with zoning ordinances. All cumulative projects that may be approved and implemented would also assess potential impacts related to land use and planning. The proposed Projects were found to have less than significant impacts related to compliance with County zoning, consistency with the County General Plan Land Use Plan intent and applicable land use conformance criteria, dividing an existing community, and with no significant impacts to the adjacent City of Lancaster. Additionally, the proposed Projects would not result in any significant or unavoidable land use impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5 mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative land use related impacts associated with other projects in the region. **(DEIR at 4.10-44)**.

3.11 NOISE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative Noise impacts.

Finding:

Changes or alterations have been required in, or incorporated into Project 4, which mitigate or avoid significant Noise impacts. Project 4, in conjunction with other development projects, will not result in a cumulatively significant Noise impact.

Facts Supporting the Finding:

Two non-Applicant projects identified have the potential to result in cumulative construction noise impacts, due to the projects being located in relatively close proximity to the proposed Projects, but not close enough to result in vibration impacts. The Western Antelope Dry Ranch project (CUP 11-07) is located approximately 1-mile north of Project 2, and the High Desert LLC (CUP 10-03) project is located approximately 1-mile north of Project 4. These distances are close enough that construction noise could propagate out to distances near the Applicant's Projects, but are not close enough to potentially result in vibration impacts. The time period of construction for these two projects is unknown, but if construction were to overlap with construction of the proposed Projects, there is the potential for increased temporary noise levels at residences; however, none of the noise sensitive receptors that are located in close proximity to Project 4 are also located in close proximity to Antelope Solar 1 or Antelope Solar Farm projects. Therefore, sound levels from construction of the Projects would only be minimally increased (less than 1-2 dBA), or not at all, by simultaneous construction. Therefore, overall cumulative impacts of the proposed Projects 1 – 6 would be less than significant with implementation of Mitigation Measures N-1 to N-9. **(DEIR at 4.11-56)**.

3.12 PUBLIC SERVICES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Public Services.

Finding:

Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Public Services. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. It is assumed that for each of the cumulative projects, worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts would be implemented. **(DEIR at 4.12-16)**.

Projects 1 – 6 would not cause effects to result in significant demands to fire response times. Projects 1 – 6 would be designed with appropriate fire protection considerations, and would also result in less than significant impacts to staffing and response times. Furthermore, Projects 1 – 6 would be required to provide taxes to the County that are designed to address cumulative fire department needs associated with new and existing developments. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes and fees to the County to provide

for their potential increase to LACFD fire protection service demands (LACFD 2009). Additionally, all development in the area is subject to review and approval by the Fire Department. This ensures that all projects contain appropriate controls to reduce demand on the fire department. As a result, Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative fire protection impacts. **(DEIR at 4.12-17)**.

Projects 1 – 6 would not cause effects to result in significant demands to sheriff staffing or response times. Projects 1 – 6 would also implement site security control, including 24-hour remotely monitored video cameras for security monitoring to prevent potential theft and vandalism activities. Additionally, a portion of Projects 1 – 6 taxes levied would be allocated to sheriff services. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes that would be allocated to sheriff services. As a result, construction and operation of Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative sheriff protection impacts. Therefore, cumulative impacts associated with sheriff services would be less than significant. **(DEIR at 4.12-17)**.

Because development of Projects 1-6 will not induce population growth, no direct or cumulative impacts to schools, parks, libraries or other public facilities will occur. **(DEIR at 4.12-15; 4.12-16)**.

3.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Transportation and Traffic.

Finding:

Changes or alterations have been required in, or incorporated into Project 4, which mitigate or avoid significant impacts to Transportation and Traffic. Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Transportation and Traffic.

Facts Supporting the Finding:

Cumulative impacts for transportation and traffic are the combined effect of Projects 1 – 6 with the impacts of other past, present, and reasonably foreseeable future projects (other projects). This Cumulative Impacts discussion addresses the cumulative impacts of the Applicant's Projects 1 – 6 and the other projects within a geographic radius of 5-mile radius of the Projects (Project Study Area), which could potentially coincide with the expected construction schedule of the Applicant's Projects. Based on evaluation of the Project Study Area and available data from Los Angeles County, there are 29 other projects that have the potential to contribute additional traffic volume within the vicinity of Projects 1-6.

Evaluation of the cumulative impacts within the Project Study Area was focused on the construction-phase traffic for Projects 1-6 and other projects within a 5-mile radius. As previously stated in the individual conclusions for Project 4 above, the operational phase for each Project is anticipated to only generate a maximum of 4 vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a maximum of 12 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis contained in the DEIR, the operational phase vehicle trips/traffic for the Projects are considered negligible and would not result in a significant cumulative impact on the traffic and/or transportation infrastructure in the Project Study Area. **(DEIR at 4.13-41 to 4.13-43)**.

3.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 4), have the potential to result in cumulative impacts to Utilities and Service Systems.

Finding:

Project 4, in conjunction with other development projects, will not result in a cumulatively significant impact to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, and regulations. Construction and operation of the cumulative projects would result in less than significant impacts to public facilities, which include electricity, gas, wastewater, and solid waste services. During construction, all cumulative projects would follow required measures to prevent construction interference to utility services, and would comply with recycling requirements to minimize solid waste disposal at solid waste facilities. During operation, the solar and wind generation projects would provide electricity, and would generate minimal amounts of solid waste. During operation, the non-solar/non-wind commercial and residential development projects would generate solid waste as would be expected from these residential and commercial uses; it is assumed that these project proponents have planned for and mitigated for the additional solid waste generation as appropriate.

The proposed Projects 1 – 6 would provide their own electricity for operational needs, no natural gas would be required for their operations, little wastewater (from panel washing) would be generated as part of the operations process, and very little solid waste would be generated. As a result, the total cumulative impacts to utility services would be less than significant, and the incremental contribution of Projects 1 – 6 to cumulative impacts related to utility services would

be less than significant. Furthermore, because the Applicant has committed to using out of Basin water during construction and operations, Projects 1 – 6 would not result in a cumulatively considerable contribution to water supply impacts in the Basin, and would have no significant cumulative effect on water supply. **(DEIR at 4.14-28)**.

SECTION 4.0 FINDINGS REGARDING PROJECT ALTERNATIVES

These Findings and Statements of Fact regarding project alternatives and certain mitigation measures identified in the Final EIR are set forth to comply with Section 21002 of the Public Resources Code and Sections 15091(a)(3) and 15126.6 of the CEQA Guidelines. Five alternatives to the proposed Project (consisting of Projects 1-6) described in the Draft EIR were analyzed and considered as follows: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites Alternative; 4) Rooftop Solar Generation Alternative; and 5) Wind Energy Generation Alternative. These alternatives constitute a reasonable range of alternatives necessary to permit a reasoned choice. For the reasons set forth below, Alternatives 1-5 are rejected as infeasible for the specific economic, legal, social, technological, or other considerations set forth below.

4.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

Description:

Under the No Project Alternative, Project sites 1-6 would remain in their present condition with site conditions (i.e., fallow agricultural land) as they currently exist.

Finding:

The No Project Alternative is rejected as infeasible because it fails to meet the Project goals and objectives, and would not contribute to the State's ability to meet its near- and long-term renewable energy generation goals and objectives.

Facts Supporting the Finding:

The proposed Projects 1 – 6 would not be approved or implemented under the No Project Alternative. The potential environmental impacts and benefits of the proposed Projects would not occur as a direct consequence of implementation under the No Project Alternative. The No Project Alternative would involve taking no action to generate 172 MW of clean, renewable electrical power utilizing solar PV technology and to integrate the electrical output of the Projects into the electrical grid. This alternative would not allow one of the primary purposes of the proposed Projects which is to increase the output of renewable energy in support of the RPS, such that the State of California may meet its current and planned goals for increasing renewable generation at reasonable market rates.

The No Project Alternative assumes that the sites will remain as they currently exist (primarily fallow agricultural land) and no environmental impacts would result. In summary, the No Project Alternative is provided for comparative purposes to the proposed Projects 1 – 6. This alternative is incapable of meeting the stated goals and objectives of the Projects to provide 172 MW of

renewable electric energy to utility providers, and does not contribute to the state's ability to meet its near-term and long-term renewable energy generation goals and objectives. **(DEIR 5-1 to 5-2)**.

4.2 ALTERNATIVE 2: LOWER INTENSITY PROJECTS

Description:

Under the Lower Intensity Projects Alternative, fewer than six sites would be developed, and the smaller projects would be developed in a size and configuration that would result in generation of fewer than 172 MW of electricity.

Finding:

The Lower Intensity Projects Alternative is rejected as infeasible because it partially fails to accomplish the goals of the proposed Projects, which are to provide 172 MW of clean, renewable electric energy using solar PV technology, and to deliver the electric output on a wholesale basis to utility providers.

Facts Supporting the Finding:

Projects 1-6 are designed to meet the increasing demand for clean, renewable electrical power. Any reduction in the size of the effort results in a similar potential reduction in the reliance on foreign sources of fuel, the diversification of energy portfolios, the contribution to the reduction of GHG emissions, and the generation of "green" jobs. It would also potentially reduce the contribution to the much needed on-peak power to the electrical grid in California.

The opportunity to develop solar power in Los Angeles County has a limited timeframe because the utility companies, which purchase the power, would purchase power from another entity if the proposed Projects are not completed in a timely manner. If Los Angeles County does not approve the six viable SGFs proposed here, the opportunity to contribute to the competitive solar generation business in the County will be further lost to other projects. The proposed Projects are well-positioned to compete in the industry, are comparatively environmentally superior to most other locations, and have good positions for PPAs and interconnection agreements. Additionally, any reduction of the megawatts produced from these Projects would further limit the County's contribution to the State's renewable energy production goals. These 5 to 52 MW Projects meet the utility industry needs for small projects, and any reduction of the respective Projects' size would jeopardize the success of the Projects. **(DEIR at 5-2)**.

4.3 ALTERNATIVE 3: SELECT OTHER PROJECT SITES ALTERNATIVE

Description:

Under the Select Other Project Sites Alternative, other properties could potentially be used for the six Project sites.

Finding:

The Select Other Project Sites Alternative is rejected, because this alternative would have the same or greater impacts to the environment as Projects 1-6, which can all be mitigated to below a level of significance.

Facts Supporting the Finding:

One key objective for the Project Applicant was to locate the Projects in an area with the following characteristics: (1) adequate solar radiation; (2) close proximity to interconnection locations for each solar site; (3) project sites with landowners who are willing to sell large enough parcels of land for solar generation at market price; (4) lack of threatened and/or endangered biological species on the site; (5) lack of nearby sensitive receptors or land uses to minimize potential conflicts with development (6) relatively flat sites that have previously been disturbed to minimize disturbance to native habitat and to minimize the need for site grading; (7) existing access to accommodate construction workforce needs; and (8) access to nearby workforce to minimize traffic and socioeconomic impacts. The Applicant performed in-depth analyses of over 10,000 acres of land in the Western Antelope Valley, as shown in DEIR Figure 6-1. Of the 10,000 acres screened, only ten percent met the criteria listed above.

The six Project sites selected and proposed by the Applicant are the most viable sites to develop solar electricity generation with minimal environmental impacts. These sites were also chosen for development based on interconnection capacity and requirements placed on the Applicant by the utility providers. Selection of other alternative sites would have the same or greater impacts to the environment since the present Projects are the result of a long and intense effort by the Applicant to find and acquire the most suitable sites according to the criteria given above. **(DEIR at 1-6; 5-3)**. Furthermore, the environmental impacts for Projects 1-6 can all be mitigated to below a level of significance.

4.4 ALTERNATIVE 4: ROOFTOP SOLAR GENERATION

Description:

Under the Rooftop Solar Generation Alternative, solar photovoltaic panels would be installed on private rooftops.

Finding:

The Rooftop Solar Generation Alternative is rejected as infeasible, because the Project Applicant does not have the ability to install solar panels on private rooftops.

Facts Supporting the Finding:

For rooftop solar to be a viable alternative to the proposed Projects it would need to provide 172 MW of electricity into the local grid. Assuming one residential installation can produce 25 kilowatts of electricity, a total of 6,880 residential installations would be needed to produce 172

MW of electricity. The Applicant does not have the ability to install solar panels on private rooftops; therefore this alternative is not feasible for the Applicant. **(DEIR at 5-3)**.

4.5 ALTERNATIVE 5: WIND ENERGY GENERATION

Description:

Under the Wind Energy Generation Alternative, electricity would be generated through the use of wind turbines.

Finding:

The Wind Energy Generation Alternative is rejected as infeasible, because the type of geographical location that is suitable for a wind farm is not available within the vicinity.

Facts Supporting the Finding:

For wind energy generation to be a reasonable alternative to the proposed Projects and meet the purpose and need of the proposed Projects, it would need to provide 172 MW of electricity into the local grid; and to be sited on previously disturbed land that utilizes existing electrical distribution facilities, ROWs, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities. The area required for construction and operation of a 172 MW wind farm would require a much more specific type of geographical location than the Projects to provide adequate wind; a feasible project area of the nature required for wind electricity production is not readily available within the area of analysis for the proposed Projects. For this reason, this alternative is infeasible. **(DEIR at 5-3)**.

SECTION 5.0 FINDINDS REGARDING THE MITIGATION MONITORING AND REPORTING PROGRAM ("MMRP")

Pursuant to Section 21081.6 of the Public Resources Code, the Commission, in adopting these Findings, also adopts the MMRP for the Silverado Power West Los Angeles Project. This Program is designed to ensure that, during Project implementation, the County and other responsible parties will comply with the mitigation measures adopted in these Findings.

The Commission hereby finds that the MMRP, which is incorporated herein by reference and attached as Exhibit A to these Findings, meets the requirements of Public Resources Code Section 21081.6 by providing for the implementation and monitoring of Project conditions intended to mitigate potential environmental effects of the Project.

SECTION 6.0 CEQA GUIDELINES SECTION 15091 AND 15092 FINDINGS

Based on the foregoing findings and the information contained in the administrative record, the Commission has made one or more of the following findings with respect to each of the significant effects of the Project:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Based on the foregoing findings and the information contained in the administrative record, and as conditioned by the foregoing:

A. All significant effects on the environment due to the Project have been eliminated or substantially lessened where feasible.

SECTION 7.0 CEQA GUIDELINES SECTION 15084(D)(3) AND 15084(D)(4) FINDINGS

The County has relied on Sections 15084(d)(3) of the State CEQA guidelines, which allow acceptance of working drafts prepared by the Applicant, a consultant retained by the Applicant, or any other person. The County has also relied upon Section 15084(d)(4), which allows the Draft EIR to be prepared directly by, or under contract by the lead agency. The County has reviewed and edited as necessary the submitted drafts to reflect the County's own independent judgment, including reliance on County technical personnel from other departments.

SECTION 8.0 PUBLIC RESOURCES CODE SECTION 21082.1(C) FINDINGS

Pursuant to Public Resources Code Section 21082.1(c), the Commission hereby finds that the lead agency has independently reviewed and analyzed the Final EIR, and that the Final EIR reflects the independent judgment of the lead agency.

SECTION 9.0 NATURE OF FINDINGS

Any finding made by this Commission shall be deemed made, regardless of where it appears in this document. All of the language included in this document constitutes findings by this Commission, whether or not any particular sentence or clause includes a statement to that effect. This Commission intends that these Findings be considered as an integrated whole and, whether or not any part of these Findings fail to cross reference or incorporate by reference any other part of these findings, that any finding required or committed to be made by this Commission with respect to any particular subject matter of the Final EIR, shall be deemed to be made if it appears in any portion of these Findings.

SECTION 10.0 RELIANCE ON RECORD

Each and all of the findings and determinations contained herein are based on the competent and substantial evidence, both oral and written, contained in the entire administrative record relating to the Silverado Power West Los Angeles County Project. The findings and determinations

constitute the independent findings and determinations of this Commission in all respects, and are fully and completely supported by substantial evidence in the record as a whole.

SECTION 11.0 RELATIONSHIP OF FINDINGS TO EIR

The County finds and declares that substantial evidence for each and every finding made herein is contained in the EIR or is in the record of proceedings in the matter.

SECTION 12.0 CUSTODIAN OF RECORDS

The custodian of the documents or other material which constitute the record of proceedings upon which the County's decision is based is the Los Angeles County Department of Regional Planning located at 320 West Temple Street, Los Angeles, California 90012.

EXHIBIT A
MITIGATION MONITORING AND REPORTING PROGRAM
("MMRP")

CEQA requires a Mitigation Monitoring and Reporting Program (MMRP) for projects where mitigation measures are a condition of project approval and development. The Draft EIR prepared for the Silverado Power West, Los Angeles County Projects identified mitigation measures, where appropriate, to avoid or substantially reduce the environmental impacts associated with the Project. This MMRP is designed to monitor the implementation of those mitigation measures. Accordingly, this MMRP has been prepared in compliance with the requirements of CEQA Section 21081.6 and CEQA Guidelines Section 15097.

This section lists each of the proposed Project Design Features (PDFs) and required Mitigation Measures (MMs) and identifies the corresponding action required for proof of compliance, the mitigation timing, the party responsible for implementation, and the monitoring agency or party responsible for ensuring each measure is adequately implemented.

Mitigation Monitoring and Reporting Program
Silverado Power West, Los Angeles County Projects
Project Nos. R2011-00833, 00798, 00799, 00807, 00801, 00805
March 2014

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.1 AESTHETICS				
A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.	A. Submit Plan to AVAQMD for review and approval	Prior to any ground disturbance activities	Applicant/Construction Manager	LACDRP AVAQMD
	B. Maintain log demonstrating compliance. Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD
A-2 The Project site shall be maintained free of debris, trash, and waste during construction.	Site inspection	During construction	Applicant	LACDRP
A-3 The Project site shall be visually screened or partially screened during construction by fencing.	A. Submit Site Plans for review and approval	Prior to issuance of applicable building permit	Applicant	LACDRP
	B. Site inspection as needed	During construction	Applicant	LACDRP
A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.	A. Submit landscape plan for review and approval. The landscape plan must be approved prior to grading or building permit.	Prior to 1st grading or building permit whichever comes first for each project.	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
	B. Implement approved landscape plan	Prior to first energization approval by LADPW B & S	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on	Submit final lighting plan for review and approval	Prior to issuance of building permit(s)	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
essential infrastructure rather than on separate light poles except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.				
5.2 AGRICULTURE AND FORESTRY				
No mitigation measures are required for Agriculture and Forestry.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.3 AIR QUALITY				
AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVQMD
AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of CVC Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Submit Transportation Demand Management program for review and approval	Prior to issuance of building permits	Applicant/Construction Manager	LACDRP LACDPW support and referral for trip reduction determination

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation, to the greatest extent feasible, approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager/Biologist	LACFD LACDRP
AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP AVAQMD
AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.4 BIOLOGICAL RESOURCES				
B-1 Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess	A. Retain qualified Biologist(s)	Prior to issuance of Grading Permit	Applicant/Construction Monitor	LACDRP CDFW
	B. Field Surveys	Prior to grading permit	Applicant	LACDRP CDFW
	C. Maintain daily monitoring reports	During Construction	Applicant/Construction Monitor	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to DRP and CDFW at their request.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-2 Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below. • Pre-survey information gathering will include reviewing of all available agency nest data and mapping. • A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted. • Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds. • A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to	Pre-construction surveys for special-status species that have been identified as having potential to occur on site	Prior to grading or as specified per species	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012). If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals. Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand excavated and collapsed under the supervision of the avian biologist. Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals. • Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.				
B-3 During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or	Biological Monitoring	During construction	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-4 Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily. <u>Swainson's hawk</u>: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity. The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats: Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows: • A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed Significant Ecological Area (SEA). • A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat; • A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat. <u>Burrowing Owl</u>: Mitigation for any occupied burrowing owl burrows found during pre-construction surveys will include a comprehensive tiered approach: • Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;	A. Acquire mitigation lands for Swainson's Hawk	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	B. Acquire mitigation lands for Burrowing Owl	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	C. Pre-construction survey for Alkali Mariposa Lilies	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	D. If necessary Acquire Alkali Mariposa Mitigation land	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
• Disturbance avoidance of occupied burrows during nesting period February 1 – August 31; • Impact avoidance of occupied burrows; • Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW). • Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback). • Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project. <u>Alkali Mariposa Lily</u>: Alkali mariposa lily will be avoided to the greatest extent possible. If pre-construction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable. For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-5 Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria: <u>Habitat Management Land Selection Criteria</u>: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired. Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred. <u>Habitat Management Lands Acquisition</u>: Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW. The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s)	A. Obtain approval of habitat management lands	Prior to Acquisition	Applicant	LACDRP CDFW
	B. Record a permanent deed restriction or conservation easement on mitigation land(s)	Within 45 days of acquiring land(s)	Applicant	LACDRP CDFW
	C. Establish fund in the amount acceptable to LACDRP and CDFW for restoration, enhancement, and maintenance of the mitigation lands	Within 90-days of mitigation land(s) acquisition	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
acquisition in an amount acceptable to the LACDRP and CDFW.				
Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the applicant shall provide a proposed date of purchase which coincides with construction of the facility.				
B-6 Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.	Enter into an agreement with CDFW pursuant to sections 1601 through 1603	Prior to alteration of Streambed	Applicant	CDFW
B-7 Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads as follows: Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.	Revegetation of interior site, excluding interior roads	After construction	Applicant	LACDRP
5.5 CULTURAL RESOURCES				
CUL-1 In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist, in consultation with the Native American Monirot shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources	A. Archaeological monitoring and Native American monitor when there is a find	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP NAHC
	B. Maintain log demonstrating compliance	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During earthmoving activities	Applicant/Construction Manager/Qualified	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.			Archaeologist	
CUL-2 In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.	A. Archaeological and Native American monitoring	During construction	Applicant/Construction Manager/Qualified Archaeologist/NAHC representative	LACDRP NAHC
	B. Maintain documentation demonstrating compliance	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-3 Project 4 construction of gen-tie lines shall maintain the right of way buffer zones prescribed by SCE for this historic electric transmission line resource, which is an active transmission line. This Mitigation Measure shall apply to Project 4 only.	Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-4 Project construction for Project 4 shall maintain a one acre undisturbed area surrounding the Del Sur Cemetery	A. Submit pre-construction surveys	Prior to construction	Applicant/Qualified Archaeologist	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
site. This Mitigation Measure shall apply to Project 4 only.	B. Construction monitoring by qualified Archaeologist	During construction	Applicant/Qualified Archaeologist	LACDRP
	C. Submit construction monitoring documentation	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
	D. Site inspection as needed	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
CUL-5 A County approved archaeologist will be retained to initiate and supervise cultural resource monitoring during Project related earthwork in areas of the Project that are within 50 feet from certain significant cultural resources, specifically from the defined perimeter of site CA-LAN-1579H (Project 4). If resources are identified, the procedures outlined in CUL-1 will be followed and/or CUL-2 (as necessary). This Mitigation Measure shall apply to Project 4 only.	A. Archaeological monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	B. Maintain log demonstrating compliance	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. A The paleontologist shall develop and execute a Paleontological Resource Mitigation and Monitoring Program and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment according to the Program.	Paleontological Monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Paleontologist	LACDRP LAC Natural History Museum support/referral
5.6 GEOLOGY AND SOILS				
No mitigation measures are required for Geology and Soils.	N/A	N/A	N/A	N/A
5.7 GREENHOUSE GAS EMISSIONS				
GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment	A. Submit operating permit(s) as required	Prior to commencement of construction	Applicant	AVAQMD LACDRP
	B. Maintain log	During construction	Applicant/Construction	AVAQMD

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	demonstrating compliance		Manager	LACDRP
GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-3 The off-road construction equipment drivers shall have proper training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-4 Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.	Site inspection as needed	During construction and grading	Applicant/Construction Manager	AVAQMD LACDRP
GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Maintain log demonstrating compliance	Prior to Building Permit	Applicant/Construction Manager	AVAQMD LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.8 HAZARDS/HAZARDOUS WASTES				
HH-1 Prior to the start of construction activities, a Hazardous Materials Management Plan shall be implemented for each project.	Submit Hazardous Materials Management Plan	Prior to start of construction	Applicant	DTSC
HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.	Submit Hazardous Waste Management Plan for each Project	Prior to start of construction	Applicant	DTSC
HH-3 Prior to the start of construction activities on the parcel containing the historic UST at the location of Project 1, a Phase I ESA will be completed. This mitigation measure only applies to Project 1.	Phase I ESA	Prior to issuance of grading permit(s)	Applicant	LACDRP
HH-4 Prior to the start of construction activities, a closure permit for the UST will be verified or obtained from the Los Angeles County Fire Department, Health Hazardous Materials Division. This mitigation measure only applies to Project 1.	Closure permit or verification for UST – Project 1 site	Prior to issuance of grading permit(s)	Applicant	LACFD
HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated	Testing of soil contamination	Prior to start of construction	Applicant	DTSC LACDRP
5.9 HYDROLOGY/WATER QUALITY				
Construction				
HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be	Maintain log demonstrating compliance of Educational materials and training for Property Owners, Tenants, Occupants, and Employee	During Construction	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
available at each project site and a log kept to show education has occurred prior to the start of construction.				
HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit spill contingency plan	Prior to grading permit	Applicant	LACDRP
HYDRO-3 No hazardous materials are anticipated to be stored on-site. If deemed otherwise, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Maintain log demonstrating compliance	During construction and operations	Applicant/Construction Manager	LACFD
HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance of the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit all applicable information	Prior to grading permit	Applicant	LACFD
Operation				
HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often if containers approach overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area/room is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.	A. Include waste collection and disposal methods in construction contract specifications	During operation	Applicant	LACSD LACDRP
	B. Maintain log demonstrating compliance	During operation	Applicant	LACSD LACDRP
5.10 LAND USE AND PLANNING				
No mitigation measures are required for Land Use and Planning	N/A	N/A	N/A	N/A
5.11 NOISE				
N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise	Maintain log of construction equipment arrivals and exit times demonstrating	During construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.	compliance			
N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
	B. Inclusion of requirement for a Noise Control Plan	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest NSR are predicted to be above the County construction noise limit of 60 dBA during the day.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
	B. Site inspection as needed	During Construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-8** Siting substations to achieve NEMA sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project: • Project 1 – 325 feet with a NEMA sound rating of 74 dBA • Project 2 – 1,511 feet with a NEMA sound rating of 81 dBA • Project 3 – 650 feet with a NEMA sound rating of 74 dBA • Project 4 (two transformers) – 1,000 feet with a NEMA sound rating of 77 dBA • Project 5 – 748 feet with a NEMA sound rating of 82 dBA	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-9** The Applicant shall choose to use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
5.12 PUBLIC SERVICES				
No mitigation measures are required for Public Services	N/A	N/A	N/A	N/A
5.13 TRANSPORTATION/TRAFFIC				
TT-1 Prior to issuance of first grading or building permit, Applicant shall document and submit all required information	Submit Projects' road survey	Prior to issuance of first grading or building	Applicant	LACDPW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.		permit		
TT-2 The County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-00798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.	Provide street closure notifications	Three days prior to any street closures impacting fire and/or paramedics	Applicant/Construction Manager	LACFD
TT-3 Stagger construction work shifts before or after peak traffic hours.	A. Maintain log demonstrating compliance	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
	B. Site inspection as needed	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
TT-4 Schedule truck deliveries during off peak hours.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-5 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-6 Encourage carpooling between construction works.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.14 UTILITIES				
No mitigation measures are required for Utilities.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
List of Acronyms: B & S – building and safety BMP – Best Management Practice CEQA – California Environmental Quality Act CASQA – California Association of Stormwater Quality Agencies CBC – California Building Code CDFW – California Department of Fish and Wildlife CUP – Conditional Use Permit CVC – California Vehicle Code dBA – decibels (acoustics) DPR – Department of Parks and Recreation ESA – Environmental Site Assessment hp – Horsepower LACDPW – Los Angeles County Department of Public Works LACFD – Los Angeles County Fire Department mph – miles per hour NEMA – National Electrical Manufacturers Association OSHA – Occupational Safety and Health Administration PRC – Public Resources Code ROW – Right of Way SCE – Southern California Edison SWPPP – Stormwater Pollution Prevention Plan UFC – Uniform Fire Code UST – Underground Storage Tank WATCH – Work Area Traffic Control Handbook LACDPH – Los Angeles County Department of Public Health LACSD – Los Angeles County Sanitation District				

FINDINGS OF FACT REGARDING THE ENVIRONMENTAL IMPACT REPORT

FOR THE SILVERADO POWER WEST LOS ANGELES COUNTY PROJECT

PROJECT SITE NO. 5 (Silver Sun Greenworks)

COUNTY PROJECT NO. R2011-00801-(5)

CONDITIONAL USE PERMIT NO. 201100072

ENVIRONMENTAL ASSESSMENT NO. 201100109

STATE CLEARINGHOUSE NO. 2012061068

PROJECT FINDINGS ORGANIZATION

Section 1	Introduction
Section 2	Findings Regarding Potential Environmental Effects Which Are Not Significant or Which Have Been Mitigated to a Less than Significant Level
Section 3	Findings Regarding Cumulative Environmental Effects Which are Not Significant or Which Have Been Mitigated to a Less Than Significant Level
Section 4	Findings Regarding Project Alternatives
Section 5	Findings Regarding the Mitigation Monitoring and Reporting Program
Section 6	CEQA Guidelines Section 15091 and 15092 Findings
Section 7	CEQA Guidelines Section 15084(D)(3) and 15084(D)(4) Findings
Section 8	Public Resources Code Section 21082.1(C) Findings
Section 9	Nature of Findings
Section 10	Reliance on Record
Section 11	Relationship of Findings to EIR
Section 12	Custodian of Records
Exhibit A	Mitigation Monitoring and Reporting Program ("MMRP")

SECTION 1.0 INTRODUCTION

The County of Los Angeles ("County") Regional Planning Commission ("Commission") hereby certifies and finds that the Silverado Power West Los Angeles County ("Project") Final Environmental Impact Report ("Final EIR"), State Clearinghouse Number 2012061068, has been completed in compliance with the California Environmental Quality Act (Public Resources Code Sections 21000 et seq., "CEQA") and the State CEQA Guidelines (Title 14, Cal. Code Regs. Sections 15000 et seq., "CEQA Guidelines").

The Project Final EIR consists of the following documents: (1) December 2013 Draft Environmental Impact Report ("Draft EIR" or "DEIR"); (2) December 2013 Technical Appendices to the Draft EIR; and (3) March 2014 Final EIR.

The Commission hereby further certifies that it received, reviewed and considered the information contained in the following: (i) the Final EIR; (ii) the application for Conditional Use Permit No. 201100072; and (iii) all hearings, and submissions of testimony from County officials and departments, the Applicant (as defined herein), the public, other public agencies, community groups, and organizations.

Concurrently with the adoption of these findings, the Commission adopts a Mitigation Monitoring and Reporting Program ("MMRP"), attached hereto as Exhibit A. Having received, reviewed and considered the foregoing information, as well as any and all information in the administrative record and the record of proceedings, the Commission hereby makes the following Findings of Fact ("Findings") pursuant to and in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15090:

SECTION 1.1 PROJECT BACKGROUND

1.1.1 Project Location.

The Project site is located in the northern portion of unincorporated Los Angeles County. The EIR analyzed a total of six (6) individual Project sites (collectively, "Projects" or "Projects 1-6"), which will each be subject to separate review and approval by the County.[1]

These Findings specifically pertain to "Project 5", which is approximately 160 acres and located at 120th Street West and West Avenue I, in Lancaster, California. The Assessor's Parcel Numbers ("APNs") for Project 5 are 3267-003-001, 3267-003-002, and 3267-003-003. When complete, Project 5 would produce 20 megawatts ("MW") of electricity from solar photovoltaic modules.

[1] The six individual Projects are not dependent upon each other for success. Each Project can succeed as a stand-alone project if other projects are not approved by Los Angeles County or if technical or financial problems delay or block the completion of a Project. CEQA allows for a group of projects to be analyzed as a single EIR; each Project must also receive approval of its CUP application and other entitlements on the merits of the individual Project and individual site.

1.1.2 Project Description—Features Common to Projects 1 - 6.

There are certain general Project characteristics and features that will apply to each of the individual six Project sites, including Project 5, as follows:

All six of the Projects would be designed and built using the same or similar methods and would have similar Project characteristics. The Projects would utilize photovoltaic ("PV") technology on fixed-tilt or tracker mounting supports. The proposed PV Projects would be constructed in phases and operated for an estimated 35 years. Construction would generally take place during normal daylight hours and would conform to County construction requirements.

Each Project would consist of the following elements:

- PV modules;
- PV module mounting system;
- Balance of system and electrical boxes (e.g., combiner boxes, electrical disconnects);
- Substation (Projects 1 – 5);
- Electrical inverters and transformers;
- Electrical AC collection system, including switchgear;
- Data monitoring equipment;
- Generation tie line; and
- Access roads and chain link perimeter security fencing.

<u>Solar PV Generating Facilities</u>

The Solar Generating Facilities ("SGFs") are designed for optimum performance and ease of maintenance. The Projects would consist of a series of PV module arrays mounted on racking systems, which are typically supported by a pile-driven foundation design. The foundation design would be determined based on the full geotechnical survey. The module mounting system, or racking system, would have a fixed-tilt or tracker PV array configuration and would be oriented south to maximize the amount of incident solar radiation absorbed over the course of the year. Electricity from a series of PV arrays would be funneled and combined at combiner boxes located throughout the SGF. The electrical current would then be further collected and combined prior to feeding the inverters. The SGF would be laid out in a PV block design to allow adequate area for maintenance in the way of clearances or access roads.

Inverters would be consolidated in areas to minimize cable routing and trenching and ensure minimal electrical losses. The alternating current ("AC") from the inverters would be routed through an AC collection system and consolidated within system switchgear. The final output from the SGF would be processed through a transformer to match the interconnection voltage. Electrical safety and protection systems would be provided to meet utility, International Organization for Standardization, and regulatory codes and standards. The energy would be

delivered to the regional electrical distribution network. A security perimeter fence with appropriate signage for public protection would be installed. Points of ingress/egress would be accessed by locked gates for facility services and maintenance.

Photovoltaic Modules

The SGFs would require installation of PV modules. The total number of PV modules required would depend on the technology selected, optimization evaluation, and detailed design. The market conditions, economic considerations, and the environmental factors would be taken into account during the detail design process. The following PV module technologies or equivalent are being considered for incorporation into the Projects:

- PV thin-film technology
- PV crystalline silicon technology
- Fixed-tilt configuration; and
- Tracking design configuration.

The modules configured with a fixed tilt would be oriented toward the south and angled at a degree that would optimize solar resource efficiency. For the tracking configuration, the modules would rotate from east to west over the course of the day. Modules would be non-reflective and highly absorptive.

Standard Installation, Array Assembly, and Racking

The final racking system would be determined by optimization evaluations and economic assessments and incorporated into the detailed design. Likewise, the final foundation design would be determined based on the geotechnical survey for each of the PV Project locations. Once the foundation has been installed, the module mounting system would be installed on it. For a tracking configuration, motors would be installed to drive the tracking mechanism. The PV modules would be delivered to each site during construction to support the installation schedule. The module mounting system would be oriented in rows within a PV design block, presenting a standard and uniform appearance across the facility. The panel configuration would be uniform in height and width.

Collection, Inverters, AC Collection, and Transformers

Modules would be electrically connected into strings. Each string would be funneled by electrical conduit (typically underground) wiring to combiner boxes located throughout the solar field power blocks. The output power cables from the combiner boxes would be again consolidated and feed the direct current ("DC") electricity to inverters, which convert the DC to AC. Underground electrical cables would be installed using ordinary trenching techniques, which include excavation of trenches to accommodate conduits. Wire depth and trench backfill would be in accordance with local, state, and federal codes.

The AC energy would be stepped up to the appropriate interconnection voltage by system transformers to match the voltage at the grid interconnection. As required, switchgear cabinetry

would be provided where necessary for circuit control. All electrical inverters, transformers, and gear would be placed on concrete foundation structures.

Commissioning of equipment would include testing, calibration of equipment, and troubleshooting. All electrical equipment, inverters, collector system, and PV array systems would be tested prior to commencement of commercial operations.

Substations

For Projects 1, 2, 3, 4, and 5, which require substations, the area for the substations would be appropriately graded and excavated to accommodate transformer equipment, the control building foundation, and oil containment area. Foundations for equipment within each approximately 1-acre substation would be constructed with reinforced concrete.

Structural components in the Project substation area would include:

- Transformers, switchgear, and safety systems; and
- Footings and oil containment system for transformers.

Interconnection Descriptions

Each inverter would be fully enclosed and pad mounted and would be approximately 90 inches in height. The AC output of two inverters would be fed via underground cable into the low-voltage side of the inverter step-up transformer, generally within 20 feet of the inverters. Each transformer would be mounted on a concrete pad and enclosed together with switchgear and a junction box. Transformers are typically 87 inches in height. The high-voltage output of the transformer would be combined in series via underground collector cables to the junction box of the nearest transformer, ranging from as little as 60 feet to as much as 700 feet. The collector system cables would be tied throughout the SGF at underground junction boxes to the main underground collector cables, which would be composed of a larger wire gauge, to the location of the generator step-up transformer ("GSU"), as applicable at each Project location. The main collector cables would rise into the low-voltage busbar and protection equipment that would be enclosed together with the GSU. The primary switchgear includes the main circuit breaker and utility metering equipment, and it would be enclosed separately but pad-mounted together with the GSU. Both the GSU and the primary switchgear would stand approximately 87 inches in height.

The output of the switchgear would be the start of the Project generation tie ("gen-tie") line. The connections from the SGFs to the regional transmission lines are made through the construction of gen-tie lines. Los Angeles County requires that all gen-tie lines be underground except when other applicable regulations require otherwise, and Projects 1 − 6 are each designed in this manner. Each gen-tie line would consist of three phases of either underground or overhead conductor and a disconnect switch. The overhead conductor would be mounted on either wooden or tubular steel poles of varying heights ranging from 55 to 85 feet. Pole height would be determined by the span between poles as defined in the final design for each Project.

Data Collection Systems

Each Project would be designed with a comprehensive Supervisory Control and Data Acquisition ("SCADA") system for remote monitoring of facility operation and/or remote control of critical components. Within the site, the fiber optic or other cabling required for the monitoring system, would be installed with the gathering line system throughout the solar field leading to a centrally located (or series of appropriately located) SCADA system cabinets. The external telecommunications connections to the SCADA system cabinets may be through either wireless or hard-wired telecommunications to a centralized data collection center.

The system would also include a permanent meteorological data collection system. The station would have several weather sensors: a pyranometer for measuring solar irradiance, a thermometer to measure air temperature, a barometric pressure sensor, and two wind sensors to measure speed and direction. These sensors would be connected to a data logger, which would compile the data for transmission to the data collection center.

Construction

Construction for each of the six Project facilities consists of three major phases: (1) site preparation, (2) PV system installation testing and startup, and (3) site cleanup/restoration. Best Management Practices ("BMPs") would be required during all construction phases of the Projects. A Storm Water Pollution Prevention Plan ("SWPPP") incorporating BMPs for erosion control would be prepared and approved before the start of construction. The Projects would also comply with applicable post-construction water quality standards adopted by the Regional Water Quality Control Board ("RWQCB").

PV System Installation

PV system installation includes earthwork, grading, and erosion control, as well as construction of the plant substation and erection of the PV modules, supports, and associated electrical equipment. System installation would begin with teams installing the steel/concrete piers support structures. The exact design would be finalized pending evaluation of soil conditions.

The proposed method of installation would be the use of vibration-driven pile foundations. This step would be followed by panel installation and electrical work. A very limited volume of concrete would be required for the substation footings, foundations, pads for the transformers, and other substation equipment. Silverado Power, LLC ("Applicant") does not propose to use excavated and poured footings or foundations for the PV arrays. Concrete would be produced at an off-site location by a local provider and transported to the Project sites by truck.

The enclosures housing the inverters have a pre-cast concrete base. Final concrete specifications would be determined during detailed design engineering consistent with applicable building codes. The primary site preparation method for the PV modules would be mowing, because the majority of the six sites are very flat with little change in topography. However, there may be a few instances where limited earthwork, including ponding area leveling of less than one foot in depth, and erosion control cultivation may be required to accommodate the placement of PV arrays. Other than required grading for roads, pads, and drainage features, and standard

trenching and installation work, no other earthwork would be performed within the array areas. Erosion control techniques used during construction may include the use of silt fencing, straw bales, temporary catch basins, inlet filters, and truck tire muck shakers. Construction of the PV arrays includes the installation of support beams, module rail assemblies, PV modules, inverters, transformers, and buried electrical cables.

Wastes generated during construction may include the following: cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spools. The Applicant does not expect to generate hazardous waste during construction. However, field equipment used during construction would contain various hazardous materials such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles.

Operations & Maintenance

Upon commissioning, the Projects would enter the operational phase. For the duration of the operational phase, the Projects would be operated and monitored remotely by a third party contractor, with an assumed two on-site visits for security, maintenance, and system monitoring per quarter (total of eight trips per year) by two third party employees in one light duty truck, and two on-site visits by four third party employees for biannual panel washing that includes one light duty truck and one water truck. Therefore the trips would be no more than 10 trips annually for security, maintenance, system monitoring and panel washing. There would be no personnel stationed on-site full time during operations. The PV arrays would produce electricity passively with minimal moving parts; therefore, maintenance requirements would be limited. Any required planned maintenance would be scheduled to avoid peak-load periods, and unplanned maintenance would typically be responded to as needed depending on the event.

Security

To ensure the safety of the public and the facilities, the sites would be fenced and signs would be posted. Security measures would be installed as necessary to mitigate and/or deter unauthorized access. Access to the sites would be controlled and gates would be installed at the roads entering the property.

Decommissioning Plan

A Decommissioning Plan for each of the Projects would be prepared and submitted for approval to Los Angeles County prior to obtaining a grading permit. The plan would assure that the land is protected during operations and returned as closely as possible to its original state upon termination of the use of the land as a SGF. It is unknown at this time if solar energy electricity production would continue to be utilized on this land in excess of 35 years, and thus the future long-term use of the site beyond 35 years is unknown. The life of each facility is presently proposed to be 35 years. The Decommissioning Plan would be implemented in the early summer of the year or year following the time of facility closure thus allowing the site reclamation to be completed outside of the rainy season and before winter begins. In the event that a Project ceases

operations prior to completion of the 35-year estimated life of the Project, applicable provisions of the Decommissioning Plan would commence.

Section 1.1.3 Project Description—Features Unique to Project Site 5

Project 5 (Silver Sun Greenworks) would have a generating capacity of 20 MW-AC and would be located on 160 acres of primarily unproductive agricultural land in unincorporated northern Los Angeles County. Project 5 would operate year-round, producing electric power during daytime hours.

The power generated by the Project 5 SGF would be connected to SCE's existing transmission network with the voltage transformation equipment and system safety equipment constructed on the site. Electricity would be delivered to the existing SCE Antelope Substation, near the intersection of 95th Street West and West Avenue J, via a 2.4-mile gen-tie originating at the DC collection system within the SGF. From the southeast corner of the Project 5 site, the gen-tie path is as follows: 0.56 miles underground in Los Angeles County across private land to the east, 0.02 miles underground across 110th Street West, 0.44 miles either overhead or underground to the south along the east side of 110th Street West, either within the County public ROW or on private land, and 1.38 miles to the east either underground or overhead along the south side of West Avenue J, either within the Lancaster public ROW or on private land. Alternatively, the gen-tie may be placed 0.44 miles underground along the west side of 110th Street West in the County, and 0.02 miles underground across 110th Street West. An easement would be obtained for this route.

An alternative interconnection plan would be a 1.5-mile gen-tie line to a proposed Antelope-Plainview collector substation at West Avenue J and 105th Street West. The gen-tie line path would be as follows: 0.56 miles underground in the County across private land to the east, 0.02 miles underground across 110th Street West, 0.44 miles to the south either overhead or underground along the east side of 110th Street West, either within the County public ROW or on private land, and 0.5 miles either underground or overhead along the south side of West Avenue J to the east, either within the Lancaster public ROW or on private land. Alternatively, the gen-tie line may be placed 0.44 miles underground to the south along the west side of 110th Street West, either within the County public ROW or on private land, 0.02 miles underground across 110th Street West, and 0.5 miles either underground or overhead along the south side of West Avenue J to the east, either within the Lancaster public ROW or on private land. An easement would be needed for this route. The proposed, previously approved private Antelope-Plainview collector substation would serve as a point to aggregate the generation output of multiple proposed projects in the area onto one set of conductors. Steel structures would be physically located at the collector substation to land the individual project 66 kV gen-tie lines and combine them onto one higher capacity set of conductors. The collector substation would include the electrical system protection equipment (circuit breaker, disconnect switches, instrumentation transformers, protective relays) necessary to identify and isolate electrical faults and safely disconnect the generators from the SCE transmission system. The collector substation would also house revenue metering equipment, and monitoring and telecommunications equipment housed in a small control building. The monitoring equipment aggregates key system data (MW produced, MVAR produced, status of protective devices, voltage level) from the PV system for delivery to the SCE system via the diverse telecommunication circuits.

A separate, previously approved gen-tie line would connect the Antelope-Plainview collector substation to the SCE Antelope Substation. Electricity from multiple projects would be delivered to the existing SCE Antelope Substation via this 0.9 mile gen-tie line originating at the collector substation. The gen-tie line would be located along the south side of West Avenue J, either within the Lancaster public ROW or on private land. The gen-tie line would be overhead or underground from the Antelope-Plainview collector substation to an area near the high voltage transmission lines approximately 700 feet east of 100th St. West in Lancaster. From this location, the gen-tie line would be located underground where it would ultimately interconnect into the SCE Antelope Substation. The overhead portion of the gen-tie line would consist of multiple conductors mounted on either tubular steel or wooden poles, which would be approximately 55 to 85 feet in height. The proposed Antelope-Plainview collector substation and 0.9 mile gen-tie to the existing Antelope substation have undergone CEQA review by the City of Lancaster, and are not further analyzed in this EIR.

The gen-tie line route for Project 5 would traverse land use designation N-1 in the County of Los Angeles per a Franchise Agreement. Within the City of Lancaster, the gen-tie line route would traverse land use designations NU and UR. In July 2013, the City of Lancaster approved a General Plan Amendment for the UR designation to NU designation for another Applicant's solar project that the gen-tie line would traverse to connect to the Antelope Substation. An agreement will be obtained by the Applicant with the City of Lancaster for the gen-tie line that will traverse through this jurisdiction. This agreement will grant ROW privileges for the proposed gen-tie line for Project 5.

Project 5 Telecommunications Lines

The primary telecommunication method for Project 5 is expected to be direct fiber optic cables placed overhead or underground along the path of the gen-tie line within the public ROW or located on private land, extending from the Project 5 site to the SCE Antelope Substation. A dedicated broadband connection from a local provider will be secured at the site.

Project 5 Construction

The proposed Project 5 construction schedule is to begin site preparation and construction in the third quarter of 2014, complete construction within approximately five months, and be commercially operational by the fourth quarter of 2014. Construction of the site, beginning with site preparation and grading through equipment setup and commencement of commercial operation, is expected to last approximately eight months. The on-site workforce would consist of laborers, electricians, supervisory personnel, support personnel, and construction management personnel. Construction would generally occur during daylight hours, Monday through Friday. Construction activities would be conducted consistent with Los Angeles County regulations regarding hours of construction. Project 5 is expected to create 100 new jobs at peak crew size during the construction phase.

The maximum estimated water use for Project 5 is expected to be 97 acre feet, which would be trucked to this site from a private provider of out-of-Basin or other authorized water. Construction water needs would be limited to soil conditioning and dust suppression. Potable water would be brought to the Project 5 site for drinking and domestic needs.

Project 5 Operations

No personnel would be stationed at the facility, and no occupied structures would be built on the site. Full and part-time positions over the life of the Project would be required for periodic operation and maintenance activities, and would be performed by a third-party contractor. Operational water requirements for Project 5 would be 2.9 acre feet per year ("AFY").

Section 1.1.4 Discretionary Actions Required for Project 5

Implementation of Project 5 will require the following discretionary approval action by the County:

- **Conditional Use Permit ("CUP")**: To authorize the construction and operation of a solar photovoltaic electricity generating plant on 160 acres and installation of a water tank in the A-2-5 Zone. The project meets the definition of "electric generating plant" in the Los Angeles County Zoning Code. Pursuant to Section 22.24.150, electric generating plants are a use subject to a conditional use permit in the A-2 Zone.

Section 1.1.5 Statement of Project Objectives

Together, proposed Projects 1 – 6 would meet the existing and future demand for electricity generated from clean, renewable technology by generating 172 MW of electrical energy from the sun. Recent legislation enacted in California recognizes the multiple benefits associated with the development of renewable energy resources. These benefits include a reduced reliance on fossil fuel, diversification of energy portfolios, reductions in greenhouse gas ("GHG") emissions, and the creation of "green" jobs within the state of California. Additionally, the Projects would assist California in meeting the newly established Renewable Energy Portfolio Standards ("RPS"). Senate Bill 14 established RPS targets for California, stating: "All retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." State government agencies have been directed to take all appropriate actions to implement this target in all regulatory proceedings, including siting, permitting, and procurement for renewable energy power plants and transmission lines.

Each of the six proposed PV Project sites, including Project 5, qualify as eligible renewable energy resources as defined by the California Public Resources Code, and would help the State meet the objective of increasing renewable energy generation. In addition, Projects 1-6 would contribute much-needed competitive energy during peak power periods to the electrical grid in California.

As another key objective, Projects 1-6 have each been sited to minimize impacts to the environment and the local community as follows:

- Using disturbed land or land that has been previously degraded from prior use;
- Using existing electrical distribution facilities, rights-of-way, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities; and

- Minimizing impacts to threatened or endangered species or their habitats, wetlands and waters of the United States, cultural resources, and sensitive land uses.

SECTION 1.2 ENVIRONMENTAL IMPACT REPORT PROCESS

In accordance with State CEQA Guidelines Section 15063, the County completed an Initial Study (June 13, 2012) for the proposed Project, and determined that an Environmental Impact Report ("EIR") was required. A Notice of Preparation ("NOP"), including the Initial Study was circulated to the Governor's Office of Planning and Research, responsible, trustee, and interested agencies, and key interest groups beginning June 20, 2012 to solicit comments on the proposed content of the Draft EIR. The NOP was circulated for the required 30-day comment period which ended July 20, 2012. A Scoping Meeting was held on July 14, 2012 at the Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, to facilitate public review and comment on the Project.

The Draft EIR includes the Initial Study, the comment letters received during the public review period in response to the NOP, and a transcript of verbal comments received during the Scoping Meeting (see Draft EIR Appendix A-1 to A-5). All NOP comments relating to the EIR were reviewed and the issues raised in those comments were addressed, to the extent feasible, in the Draft EIR.

Potentially significant environmental impacts addressed in the Draft EIR include Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems. The Draft EIR analyzed both Project-level and cumulative effects of the Project on these topics and identified a variety of mitigation measures to minimize, reduce, avoid, or compensate for the potential adverse effects of the proposed Project.

The Draft EIR also analyzed five potential alternatives to the proposed Project, including: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites; 4) Rooftop Solar Generation; and 5) Wind Energy Generation. Potential environmental impacts of each of these alternatives were discussed at the CEQA-prescribed level of detail and comparisons were made to the proposed Project.

The Initial Study determined that the Project would result in less than significant or no impact to several environmental resource areas:

1) **Mineral Resources**: The Project would not have the potential to result in the loss of availability of a known mineral resource of value to the region, including those identified in a local general plan, specific plan, or other land use plan.

2) **Employment, Population & Housing**: The Project would provide significant short-term employment for construction workers during the two year construction period. The

duration of construction for the Projects would be less than two years; and construction personnel would commute to the Projects from Lancaster, the Los Angeles areas, and Kern County. However, jobs would be temporary and would be for the two year construction period. Construction workers would not establish new households and are not anticipated to permanently relocate to the area. Additionally, adequate construction personnel presently living in Los Angeles and Kern County would fill all of the jobs that will be available. Area population, housing demands and the need for educational facilities and libraries would not be affected significantly because jobs that would be created are short term in nature; therefore, they would not be impacted by the Projects. Employment, Population, and Housing would not be impacted because the Projects do not require a significant number of personnel to operate them once they are built and producing electricity, and they do not have growth inducing impacts to the local community. Requirements for operations and maintenance are not significant and would be conducted by a few specialized contracted third-party personnel who will cover the Projects. There is no operations and maintenance building on any of the Projects 1-6.

3) **Recreation**: The Project would have no impact on recreation opportunities in the area. There are adequate recreation opportunities in the area, and the availability of these would not change as a result of the Project.

Following the Los Angeles County Department of Regional Planning ("LACDRP") internal departmental review and analysis of the proposed Project through the screencheck process, the Draft EIR was submitted to the State Clearinghouse, Governor's Office of Planning and Research, and circulated for public review period beginning January 6, 2014. The 45-day public review period required by State CEQA Guidelines Section 15087 ended on February 19, 2014.
A public hearing was held before the County's Hearing Examiner to take public testimony on the Draft EIR, at Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, held at 1:00 p.m. on February 1, 2014. Approximately 80 people attended the Hearing Examiner meeting, and 26 attendees provided oral comments on the Draft EIR. A transcript of the oral comments made at the Hearing Examiner Meeting is contained in Section 2.0 of the Final EIR.

SECTION 1.3 PROJECT FINDINGS INTRODUCTION

The Findings made by the County, pursuant to Section 21081 of CEQA, and Section 15091 of the State CEQA Guidelines, on the consideration of Project 5 of the Silverado Power West Los Angeles County Project in unincorporated Los Angeles County, California are presented below. All potentially significant impacts of the Project identified in the Final EIR are included herein, and are organized according to the resources affected.

The Findings in this document are for Project 5 of the Silverado Power West Los Angeles County Project, and are supported by information and analysis from the Final EIR and other evidence in the administrative record.

For each significant impact, a Finding has been made as to one or more of the following, in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15091:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

A narrative of supporting facts follows the appropriate Finding. For all of the impacts, one or more of the findings above have been made. The proposed Project will not result in any significant and unavoidable impacts.

SECTION 2.0 FINDINGS REGARDING POTENTIAL ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

All Final EIR mitigation measures, as set forth in the MMRP (attached as Exhibit A to these findings) have been incorporated by reference into the conditions of approval for Project 5. These mitigation measures and conditions of approval will result in a substantial mitigation of the effects of Project 5, such that the effects are not significant or have been mitigated to a level of less than significant. Specifically, the Commission has determined, based on the Final EIR, that Project 5 design features, mitigation measures, and conditions of approval will reduce Project impacts concerning Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems to a level of less than significant.

2.1 AESTHETICS

Potential Effect:

Project 5 would have significant visual impacts to the Project area if it had a substantial adverse effect on a scenic vista; would be visible from, or obstruct views from a regional riding or hiking trail; substantially damage scenic resources including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features; or create a new source of substantial light or glare which will adversely affect day or nighttime views in the area.

Finding:

Changes or alterations have been required in, or incorporated into Project 5 which mitigate or avoid the potentially significant environmental effects related to Aesthetics.

Facts Supporting the Finding:

Project 5 would be not located along or in proximity to a state scenic highway. The Project 5 SGFs would not substantially damage or impact scenic resources such as trees (including Joshua trees) or rock outcroppings, and there are no historic buildings located in the Project 5 site. **(DEIR at 4.1-105)**.

The Project 5 site is located in the west/central portion of the Antelope Valley, and it is flat, sloping gradually downwards from southwest to northeast. The Project 5 site is fallow agricultural land, and is currently vacant. The existing site is currently open land in a rural area, and is typical of the surrounding landscape. The visual quality of the Project 5 site is low, and the site itself does not have unique or rare features, or hold special significance. The topography is uniform and flat. Vegetation is uniform and consists of non-native grasses and short shrubs. Two man-made drainage features were observed. A wash runs east/west down the center of the Project 5 site. Two-track marks are visible on aerial photographs on the Project 5 site. An electric distribution line is located across the street from the Project 5 site, on the north side of West Avenue I. A high-voltage transmission line with lattice towers is located adjacent to the Project site's eastern boundary. **(DEIR at 4.1-51)**.

Rural development and public infrastructure in the landscape surrounding the Project 5 site include farms, rural residences, agricultural fields, high-voltage power lines, PV solar fields, electrical distribution lines, roadways, and a large substation (the Antelope Substation). Existing PV solar fields are located approximately 1.8 miles east and 3.9 miles southeast of the Project 5 site. Development near the site is rural in nature. The closest residence is associated with a farm located approximately 380 feet to the west of the site along 120th Street West. The residence building is surrounded by tall trees, and symmetrical rows of planted trees occur between the residence and 120th Street West. There are several other rural residences located within 1 mile of the Project 5 site, along local roads. Most residences have a restricted view of the Project 5 site because of surrounding vegetation. **(DEIR at 4.1-51)**.

There are no designated scenic highways in the vicinity of the Project 5 site. The Project 5 SGF may be visible from 90th Street West and Avenue K between 90th Street West and 110th Street West, which are identified as potential scenic routes in the City of Lancaster's MEA. However, neither of these roadways has been designated as a scenic route. It is highly unlikely that the SGF would be discernible from Little Buttes or Quartz Hill, which are both located over eight miles from the Project 5 site. Even though viewpoints from Little Buttes and Quartz Hill are at higher elevations than the Project 5 site, from this distance the proposed Project would fade into the flat landscape. DEIR Figure 4.1-25 shows a view from Quartz Hill in the direction of the site. As is seen from the photo, individual features and patterns beyond the residential developments in Lancaster are not discernible. **(DEIR at 4.1-52)**.

Project 5 would be visible from the trails and vistas associated with the Foothills Area, and may be visible from higher elevations in the California Poppy Reserve where views are not blocked by terrain. If the SGF was visible from that distance, it would not appear dissimilar to an agricultural field or the Antelope Substation in size and shape after construction. Other scenic resources identified by the City of Lancaster are located a sufficient distance away such that after construction the SGF would fade into the horizon line and not be visible. The SGF may be visible from sections of West Avenue K and 90th Street West during and after construction. These roads were identified by the City of Lancaster as potential scenic routes, but are not currently designated as scenic routes. **(DEIR at 4.1-98)**.

Construction activities and equipment on the Project 5 site may be noticeable from vistas on top of and around the Foothills Area. During construction of the SGF, disturbance areas would appear as large patches of fine, buff-colored rock and soil. Construction activities may produce visible dust, but impacts would be mitigated to less than significant with implementation of the fugitive dust plan (Mitigation Measure A-1). Any trash, debris, and waste would be removed from the Project 5 site during construction, and the site would be screened or partially screened by fencing in accordance with Mitigation Measures A-2 and A-3. Adverse visual effects from construction would be temporary and last only during the construction time period, and less than significant with implementation of Mitigation Measures A-1, A-2, and A-3. **(DEIR at 4.1-98)**.

Because construction activities would be limited to daylight hours, impacts from nighttime lighting would not occur. Lighting will comply with the Los Angeles County Rural Outdoor Lighting District Ordinance. Therefore, the impacts would be less than significant with implementation of Mitigation Measure A-5. Because of the low height of the solar modules, no significant shadows would be cast upon nearby sensitive land uses. The SGF would not create a significant source of light. Light sources associated with the SGF would be minimal, and would be restricted to that required for nighttime safety and security according to County requirements and would comply with all requirements of the Los Angeles County Rural Outdoor Lighting District Ordinance. Only permitted types of lights would be used and specified height limits employed. Lighting would be installed and directed downward and shielded to avoid light trespass. The amount of light generated by the security lights would be consistent with the provisions of the new Los Angeles County Rural Outdoor Lighting District Ordinance, and would allow less light trespass than existing sources of light produced by man-made structures adjacent to the proposed site, including residences, roadway lights, and other existing nearby facilities. Motion sensors and time limits would be employed per the lighting ordinance. Project components would introduce minimal amounts of glare to the existing landscape. The PV modules are designed to absorb sunlight, and the glass modules that protect the PV surface are typically formulated glass designed to allow sunlight to pass with minimal reflection. Impacts from new sources of light or glare will be less than significant with Mitigation Measure A-5. **(DEIR at 4.1-113)**.

The Project 5 SGF would not impact any designated scenic routes. The SGF may be visible during and after construction from sections of 90th Street West and West Avenue K, which are identified by the City of Lancaster as potential scenic routes, but are not currently designated as such. Existing vegetation and infrastructure (including high-voltage transmission lines, PV solar fields, residences/farms, and the Antelope Substation) are located in between the Project 5 site

and 90th Street West, and would provide some degree of visual screening during and after construction. Views from 90th Street West to the mountains would not be impeded. West Avenue K is considered a potential scenic route for views to the south of the San Gabriel Mountains and Portal Ridge foothills, and the SGF would not impede these views. High-voltage transmission lines and ranches/farms are located in between Avenue K and the Project 5 site, and would provide some degree of visual screening. Because of the distance, even if the SGF is visible from this section of Avenue K, it would not be prominent in the landscape. **(DEIR at 4.1-98)**. No trails are located on the Project 5 site. Therefore, the SGF would not cause the vacation of any portion of any trail. **(DEIR at 4.1-104)**.

After construction, the Project 5 SGF would be visible from the Foothills Area but would not be a dominant element in the landscape unless the viewer was directly adjacent to the facility. At 8 feet tall, the PV modules are relatively short, and given their design, which absorbs sunlight instead of reflecting it, the modules would not be highly reflective. From viewing points not directly adjacent to the site and at approximately the same elevation as the SGF, the SGF would fade into the flat landscape and not dominate the view after construction. In addition, other electric infrastructure, including the Antelope Substation and several high-voltage transmission lines, are also located within two miles of the Project 5 site. Because this existing electrical infrastructure is also visible from scenic vistas such as the Foothills Area, Project 5 and its gen-tie line would not significantly degrade views from nearby scenic vistas. The SGF would be prominent in views along the Class III bikeway located along West Avenue I, and may also be visible from 90th Street West, and West Avenue J. However, a 10-foot vegetative buffer would be located along the northern boundary of the Project site for 0.5 mile where it is adjacent to the Class III bikeway to screen the view from the bikeway, as required by Mitigation Measure A-4. The SGF and gen-tie line would not degrade the scenic character around the bikeways because it is not out-of-character when considering the context of the surrounding landscape. Rural development and public infrastructure are common in the landscape around the site and include rural residences, agricultural fields, residential developments, and electrical infrastructure such as existing PV solar fields, electric distribution lines, and high-voltage transmission lines. Overall, the Project would have a less than significant impact with mitigation. **(DEIR at 4.1-99, 4.1-104)**.

A contrast rating was conducted from the viewpoint shown in DEIR Figure 4.1-36 to assess the level of contrast that would be introduced by Project 5 to landform, vegetation, or structures in terms of major landform characteristics (form, line, color, and texture). The height, bulk, pattern, and scale of the SGF were considerations in the contrast rating process, which determined that the overall level of contrast introduced by the Project 5 SGF would be moderate. No noticeable modifications to landforms are anticipated. The removal of vegetation (the shrubs on the south side of the road) would introduce a weak level of contrast compared with existing conditions. The introduction of solar modules would create a moderate level of contrast compared with existing conditions. Although the solar modules would introduce a new infrastructure element to the landscape, the colors of the modules already exist in the environment, and the horizontal lines created by the rows of solar modules mimic the naturally flat lines of the foreground landscape. **(DEIR at 4.1-110)**.

Viewers such as nearby residents and travelers on West Avenue I would still experience views of the open desert lands around the site after the solar facility is constructed. The residence located closest to the solar facility (along 120th Street West) is separated from the site by rows of planted trees. The solar facility would not significantly impact views from this residence because of screening or partial screening provided by the vegetation. The SGF is not out-of-character with the surrounding landscape when considering the context of the larger Project 5 area. Rural development and public infrastructure are common in the landscape around the Project 5 site. The Project 5 site is located within 2 miles of an existing PV solar field, and approximately 1.9 miles west of the Antelope Substation, which has a footprint that is a similar size and shape compared to the proposed site. The electrical infrastructure on the Antelope Substation is much more complex with varying heights and shapes of equipment, while the SGF would appear very uniform throughout the site. Several distribution lines and high-voltage transmission lines converge at the Antelope Substation. Other modifications in the landscape include farms and residences. Because other structures including PV solar facilities are common in the vicinity of the site and in the larger Project 5 area, and because the site itself is not characterized by high visual quality, the visual impact of the site on the existing visual character of the proposed site and its surroundings would be less than significant, and Project 5 would have a less than significant impact with mitigation. **(DEIR at 4.1-111)**.

Project 5's visual impacts are further reduced with the adoption of the following feasible mitigation measures:

A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.

A-2 The Project site shall be maintained free of debris, trash, and waste during construction.

A-3 The Project site shall be visually screened or partially screened during construction by fencing.

A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.

A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on essential infrastructure rather than on separate light poles except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.

2.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Project 5 would have a significant impact on Agriculture and Forestry Resources if it would: convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract; conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220 (g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g)); result in the loss of forest land or conversion of forest land to non-forest use; or 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.

Finding:

Project 5 will not have a significant effect on the environment related to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

As currently mapped under 2010 data from the Department of Conservation ("DOC") Farmland Monitoring and Mapping Program ("FMMP"), the Project 5 site contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. **(DEIR at 4.2-5)**. Project 5 also contains no forest land, timberland, or timberland zoned Timberland Production. **(DEIR at 4.2-8)**.

Project 5 is located within the Los Angeles County Zoning Ordinance designation A-2, Heavy Agriculture. According to LACDRP, a solar electricity energy generating facility is allowed in Zone A-2 with the issuance of a CUP (Chapter 22.24.150[A]). Furthermore, Project 5 will not preclude future agricultural uses. Project 5 and its associated gen-tie lines are located within a LACDRP Agricultural Opportunity Area ("AOA"). The Antelope Valley Areawide General Plan Policy states that these areas should be protected from incompatible uses. The Antelope Valley Area Plan states that applications for non-agricultural uses in the AOA areas will be evaluated for their impact upon adjacent agricultural operations.

Project 5 would involve conversion of land that was formerly used for agricultural production to renewable electricity energy production. Construction and operation of Project 5 would not involve other restrictions, obstructions, or resources that could result in conversion of Farmland to non-agricultural use. The Project 5 site has not been irrigated since 1972. The Project would produce power in a passive manner and would result in minimal air pollutant emissions, traffic, and noise, and would not affect adjacent agricultural operations.

Project 5 and its associated gen-tie lines are located in an AOA, but are not currently utilized for agricultural purposes. Additionally, the proposed properties are not designated under a

Williamson Act contract. As a result, construction and operation of Project 5 would not conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, impacts to existing agricultural use zoning, designated AOAs, and Williamson Act contracts will be less than significant. **(DEIR at 4.2-7)**.

Project 5 and its associated gen-tie lines will temporarily preclude future agricultural use at the Project 5 site. Following the termination of power generating activities at the Project 5 site, all facilities and equipment would be removed and the land would be restored as near to its pre-development condition as possible in the event a new similar land use is not contemplated at that time by then current owners. A decommissioning and reclamation plan detailing land restoration activities will be provided, as required by Los Angeles County as part of the CUP. Additionally, the Applicant will be required to provide a decommissioning bond, or other suitable financial guarantee acceptable to the County, equal to the amount of money estimated to be required to decommission the Project, including any additional environmental review which might become necessary, and restore the land to as near its pre-development condition as possible. Project 5 will not impact any land use outside the development site's limits. Impacts regarding the conversion of Farmland to non-agricultural use will be less than significant. **(DEIR at 4.2-9)**.

2.3 AIR QUALITY

Potential Effect:

Project 5 would have a significant impact on Air Quality if it would: conflict with or obstruct implementation of the applicable air quality plan; violate any air quality standard or contribute substantially to an existing or projected air quality violation; cumulatively produce a considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors); expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people.

Finding:

Changes or alterations have been required in, or incorporated into Project 5 which mitigate or avoid the potentially significant environmental effects related to Air Quality.

Facts Supporting the Finding:

Pursuant to the Clean Air Act ("CAA"), the Antelope Valley Air Quality Management District ("AVAQMD") is required to reduce project emissions of criteria pollutants for which the Mojave Desert Air Basin ("MDAB") is in non-attainment. Project 5 is located within a non-attainment area, which means that certain Project-related activities could potentially be subject to emission control strategies contained within the AVAQMD Federal 8-Hour Ozone Attainment Plan. Construction would involve activities that can result in emissions of particulate matter ("PM"). However, construction of PV panels and the generation-tie line would not require intense

earthmoving activities, only the low-impact method of mowing the surface. Compliance with applicable rules, ordinances, plans, and policies would minimize PM emissions during construction. Project 5 construction emissions would not exceed emission thresholds, and would be less than significant. **(DEIR at 4.3-29)**. Since construction of Projects 1-6 would occur consecutively over the course of two years, construction of the six Projects could overlap, which may cause a peak in the Projects' daily construction emissions. However, maximum daily and annual construction emissions would not exceed the appropriate AVAQMD significant thresholds for all pollutants, even with the potential overlap in construction schedules. **(DEIR at 4.3-37)**.

During operation of Project 5, the Project site would undergo maintenance and security activities no more than 10 times annually (as needed), and would not create a daily increase in population or visitors. The assumption of 10 annual trips includes truck trips associated with panel washing. Project 5 would comply with AVAQMD rules and Los Angeles County ordinances, and is designed to be consistent with applicable county policies and the Attainment Plan. Therefore, Project 5 would not conflict with implementing the applicable air quality plan. **(DEIR at 4.3-25; 4.3-40)**.

Project 5 emissions estimates are based on compliance with AVAQMD Rule 403 requirements for fugitive dust suppression, watering exposed surfaces two times daily. The short-term emissions during Project 5 construction would not exceed AVAQMD significance thresholds. As such, Project 5 would not exceed thresholds, result in violating air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-28)**. Likewise, even when all six Projects operate concurrently, the operation of all six Projects would not exceed annual thresholds, violate air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-42)**.

Decommissioning of Project 5 (and each of the six Project sites) would require removal of the PV modules, PV module mounting system, electrical boxes, electrical inverters and transformers, electrical AC collection system, switchgear, data monitoring equipment, chain link perimeter security fencing, concrete ballasts, underground vaults, other concrete pads, and transporting all components off site. Air quality emissions from decommissioning would be generated from the pieces of equipment used and any fugitive dust from site preparation activities. Equipment used for decommissioning and removal of concrete ballasts, underground vaults, concrete pads, etc. generally would be similar to that used for construction, except that no mowing or clearing would be required.

Since decommissioning does not involve mowing or clearing activities, the level of fugitive dust emissions would be less than emissions created during construction. After removal of equipment and facilities, the site would need to be re-vegetated. Decommissioning would occur after at least 25 years of operation; therefore, equipment engine technology is likely to be more advanced, and fuels to be cleaner. Criteria pollutant emissions during decommissioning would be equal to or, more likely, less than those estimated from construction for Project 5, and will also be less than significant with mitigation. **(DEIR at 4.3-42)**. Similar to criteria pollutant emissions, hazardous air pollutant emissions during decommissioning would be less than during construction due to advanced equipment engine technology and cleaner fuel and would therefore be less than

significant. Exhaust from off-road equipment and on-road vehicles used during decommissioning and construction truck trips would not be expected to create objectionable odors, and would therefore be less than significant. **(DEIR at 4.3-42).**

The MDAB is currently nonattainment for federal and state ozone standards and nonattainment for state PM_{10} standards, which may cause emissions from Project 5 to contribute to an existing or projected air quality standard exceedance. Implementing any of the six Projects (including Project 5) would increase short-term emissions related to construction, and a negligible increase in long-term emissions related to SGF operation and maintenance. Construction for all six sites is expected to be staggered, and may extend over two years. Nevertheless, due to the nature and size of each site, simultaneous construction would not result in emissions of ozone precursors or PM_{10} that exceed daily thresholds. As shown in DEIR Table 4.3-12, "Mitigated Peak Daily Concurrent Construction Emissions", and DEIR Table 4.3-13, "Peak Annual Concurrent Construction Emissions", the impacts would be less than significant prior to mitigation. Implementing control strategies to reduce PM_{10} further minimizes air emissions. As such, construction of Project 5 would not 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). **(DEIR at 4.3-43)**.

During the operation phase, Project 5 will have no major emissions sources. Facility operating equipment that emits regulated air pollutants or requires AVAQMD permits is not planned at Project 5 or any of the six Project sites. As shown in DEIR Table 4.3-20, "Peak Annual Concurrent Operation Emissions", the impacts would be less than significant. As such, operation of Project 5 would not 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). **(DEIR at 4.3-43)**.

Project 5 was analyzed for air impacts to nearby sensitive receptors; however, sensitive receptors would only be exposed during construction activities. PM_{10} and $PM_{2.5}$ concentrations are expected to occur primarily from fugitive dust emissions during mowing, excavation activities and, to a lesser degree, during PV installation and paving. Rule 401 requires that airborne particles remain on the site from which they originate under normal wind conditions. Proper mitigation techniques must be implemented to ensure that fugitive dust is contained. Emissions are not expected to expose even the closest sensitive receptors to substantial pollutant concentrations, and, due to the distance between Project sites, simultaneous construction at two sites would not significantly impact the same sensitive receptors. **(DEIR at 4.3-44)**.

Operational emissions from Project 5 would not impact local air pollutant levels at nearby receptors. As mentioned above, sensitive receptors would only be exposed, if at all, during construction activities. The primary source of Project emissions during operation is the vehicles used by facility maintenance staff traveling to and from the site. Maintenance is expected to occur no more than 10 times per year. Overall, Project 5 would not result in an increase in VMT over the course of one summer or winter day. Thus, Project 5 would not result in new long-term stationary sources, nor would they result in a significant number of net new vehicular trips.

Carbon monoxide (CO) impacts from operation of Project 5 to sensitive receptors would be less than significant. **(DEIR at 4.3-44)**.

Short-term concentration levels during the construction phase will not expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than the EPA screening levels. **(DEIR at 4.3-45)**. Due to continuous construction of each of the six Project sites over the course of two years (which may overlap), long-term cancer impacts from construction activities to the nearest sensitive receptors were evaluated, and found that even with the cumulative contribution of health risk impacts from all six proposed Projects, the cumulative cancer risk to the identified sensitive receptors is still below the cancer risk exposure level. **(DEIR at 4.3-46)**. Short-term concentration levels during Project 5 site construction will neither expose sensitive receptors to substantial pollutant concentrations, nor exceed the cancer risk screening levels. **(DEIR at 4.3-47)**.

Project 5's Air Quality impacts are further reduced with the adoption of the following feasible mitigation measures:

AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction, or, in locations where water alone does not suffice to suppress dust adequately apply nontoxic chemical soil stabilizers, according to manufacturers' specifications. Temporarily stockpiled soil shall be secured with tarps or plastic sheeting or sprayed with non-toxic soil stabilizers.

AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).

AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.

AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.

AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.

AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.

AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.

AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.

AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.

2.4 BIOLOGICAL RESOURCES

Potential Effect:

Project 5 would have a significant impact on biological resources if it would: have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game Wildlife ("CDFW") or U.S. Fish and Wildlife Service ("USFWS"); have a substantial adverse effect on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, and regulations of CDFW or USFWS; have a substantial adverse effect on federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means; 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; 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) otherwise contain oak or other unique native trees (junipers, Joshuas, southern California

black walnut, etc.); 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, Section 22.56.215), and the Sensitive Environmental Resource Areas ("SERAs"), (L.A. County Code, Title 22, Section 22.44, Part 6); or conflict with the provisions of an adopted state, regional, or local habitat conservation plan.

Finding:

Changes or alterations have been required in, or incorporated into Project 5 which mitigate or avoid the potentially significant environmental effects related to Biological Resources.

Facts Supporting the Finding:

Project 5 does not contain riparian habitat, coastal sage scrub, oak woodlands, wetlands, Joshua trees, or yucca trees on the site, and does not contain non-jurisdictional or state regulated waters. **(DEIR at 4.4-59)**. There are no wetlands, vernal pools, or riparian habitat identified on the Project 5 site. No federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act features, were identified on the Project 5 site. The natural swales located on Project 5 do not support riparian vegetation or riparian habitats. **(DEIR at 4.4-61)**.

Valley needlegrass grasslands were identified on portions of the Project 5 site. Valley needlegrass grasslands are considered a sensitive vegetation type by CDFW, and are protected by the City of Lancaster and Los Angeles County. Mitigation lands being selected would replace the habitat lost for Valley Needlegrass, and efforts to reseed this plant on site would also be made by including these seeds in the land reclamation seed mix. **(DEIR at 4.4-59)**.

Project 5 does not contain oak trees, juniper trees, Joshua trees, or other unique native trees aside from a minimal number of juniper trees. Juniper trees will be avoided if possible; however, in considering mitigation lands to be selected, lands with important habitat elements such as native trees will be sought. **(DEIR at 4.4-62, 63)**. Project 5 and the immediate vicinity do not contain or conflict with any Significant Ecological Areas ("SEAs"), Wildflower Reserve Areas, or Sensitive Environmental Resource Areas ("SERAs"). The closest SEAs to Project 5 are the Portal Ridge-Liebre Mountain, which is 3.5 miles west, and Fairmont and Antelope Buttes which are 3.42 miles south. Therefore, Project 5 would not conflict with any local policies or ordinances protecting biological resources. **(DEIR at 4.4-64)**. There are no adopted state, regional, or local habitat conservation plans in effect within the boundaries of the Project 5 site. **(DEIR at 4.4-64)**.

The Project 5 site has low potential for Peirson's morning glory, American badger, loggerhead shrike, merlin, mountain plover, southern grasshopper mouse, and ferruginous and Swainson's hawk to occur onsite. There is moderate potential for the coast horned lizard to occur on site. There is low potential for the burrowing owl to occur onsite, as no individuals or suitable burrows were observed during 2013 targeted burrowing owl surveys. Developing the site as a solar generating facility would remove habitat for these species, which is a potentially significant

impact as the 160 acres of land for Project 5 would be mostly unavailable as wildlife habitat during the life of Project 5. However, this impact is less than significant with mitigation. **(DEIR at 4.4-59)**.

Project 5 is located within an area of topographically homogeneous open space, and is also near a crossing of the California Aqueduct. Lighting, fencing, and increased human activity related to construction and operation would have the potential to impact the continued viability of this crossing for numerous wildlife species. Wildlife nursery areas on the Project 5 site may include nesting sites of native bird species, which are protected by the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) and the California Fish and Game Code Section 3503. Burrowing owls may have suitable burrows on the sites and protections for bird nesting and burrowing owls are provided in Mitigation Measures B-1, B-2, B-3 and B-4. The intent of acquiring mitigation lands would be to select available parcels that would replace lost breeding/foraging/winter foraging habitat and enhance the overall quality of habitat for a variety of species including migratory bird species. The potential to acquire parcels that would also maintain or enhance wildlife migration corridors in the area would also be considered. Planting of shrubs and native vegetation on the Project 5 site would improve the opportunities for shrub-nesting bird species on the Project 5 site when it is complete. The implementation of Mitigation Measure A-6 described in Section 4.1 Aesthetics, provides for the preparation of a lighting plan to minimize fugitive light from security lighting on the site. **(DEIR at 4.4-62)**.

Project 5 impacts to Biological Resources are further reduced with the adoption of the following feasible mitigation measures:

B-1: Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to LACDRP and CDFW at their request.

B-2: Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below.

Pre-survey information gathering will include review of all available agency nest data and mapping.

- A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted.

- Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds.

- A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012).

  If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals.

  Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand-excavated and collapsed under the supervision of the avian biologist.

  Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals.

- Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in

advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.

B-3: During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW during construction activities, as frequently as required by LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.

B-4: Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily.

Swainson's hawk: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity.

The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats:

Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows:

- A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed SEA.

- A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat;

- A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat.

Burrowing Owl: Mitigation for any occupied burrowing owl burrows found during preconstruction surveys will include a comprehensive tiered approach:

- Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;

- Disturbance avoidance of occupied burrows during nesting period February 1 – August 31;

- Impact avoidance of occupied burrows;

- Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW).

- Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback).

- Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project.

Alkali Mariposa Lily: Alkali mariposa lily will be avoided to the greatest extent possible. If preconstruction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on appropriate soil types on Projects shall be

implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable.

For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.

B-5: Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria:

> **Habitat Management Land Selection Criteria**: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired.
>
> Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred.
>
> **Habitat Management Lands Acquisition:** Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW.
>
> The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s) acquisition in an amount acceptable to the LACDRP and CDFW.
>
> **Land Acquisition Schedule and Financial Assurances**: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the

Applicant shall provide a proposed date of purchase which coincides with construction of the facility.

B-6: Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.

B-7: Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads) as follows:

Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock is not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.

2.5 CULTURAL RESOURCES AND PALEONTOLOGICAL RESOURCES

Potential Effect:

Project 5 would have a significant effect on Cultural Resources or Paleontological Resources if it would: cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5; cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of formal cemeteries.

Finding:

Changes or alterations have been required in, or incorporated into Project 5 which mitigate or avoid the potentially significant environmental effects related to Cultural Resources and Paleontological Resources.

Facts Supporting the Finding:

No historical or archaeological resources were detected within Project 5 during the transect survey conducted for the EIR. Four previously recorded sites were identified during the record search and revisited during the transect surveys of the proposed gen-tie options 1 and 2. Previously recorded site P19-004250 is within gen-tie option 1A-D and 2A-D, and was recommended as not eligible for listing to the California Register of Historic Resources ("CRHR"). Previously recorded sites P19-004249, P19-186876, and P19-003477 are within proposed gen-tie options 1B and 1D, 2B and 2D, and were all recommended as not eligible for listing to the CRHR. None of these sites were recommended for listing due to the fact that they either do not meet the formal definitions of a historical resource or unique archaeological resource as defined by CEQA; because they are comparatively recent (early to mid-20th century)

and have little potential to yield additional data; or otherwise do not meet the requisite criteria for listing. Therefore, construction, operation and maintenance of Project 5 will not cause any change in the significance of historical or archaeological resources. **(DEIR at 4.5-25)**.

There is a possibility that historical and/or archaeological materials would be uncovered during necessary subsurface excavations for the construction of the proposed Project 5. Although the likelihood of encountering archaeological resources on the site is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure CUL-1, which describes procedures to be followed in the event that cultural resources are discovered, is required. CUL-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-26)**.

No paleontological resources were detected during the transect survey of Project 5. Based on the paleontological assessment conducted for the EIR, it is unlikely that any intact significant paleontological resources are or will be located on the Project 5 site. Therefore, Project 5 would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature, or contain rock formations indicating potential paleontological resources. If Project excavations reach 10 feet or more below current grade and reveal that older Quaternary deposits and/or the later Miocene deposits are exposed, there will be a higher potential for encountering significant vertebrate fossil remains. Deep cuts should be inspected by a qualified paleontologist in an attempt to identify the more sensitive older alluvial strata. **(DEIR at 4.5-30)**.

There is a possibility that paleontological materials would be uncovered if excavations for the construction of the proposed Project 5 reach a depth of 10 feet or more below current grade. Although the likelihood of encountering paleontological resources within the Project 5 area is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure PALEO-1, the development of a Paleontological Resources Mitigation and Monitoring Plan ("PRMMP") by a qualified paleontologist is required if construction excavation depth is below 10 feet or more below current grade. PALEO-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-30)**. Operation of Project 5 would not require any excavations to the depth of potential paleontological resources. There, operation of Project 5 would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources. **(DEIR at 4.5-30)**.

There is no indication that human remains are present within the boundaries of the Project 5 site. The records search and the field survey indicate no evidence of human remains on or near the sites. Project-related earth disturbance, however, has the potential to unearth previously undiscovered remains, resulting in a potentially significant impact. However, implementation of Mitigation Measure CUL-2 that describes procedures to be followed in the event that human remains are discovered would ensure that impacts are reduced to a less than significant level. **(DEIR at 4.5-32)**.

Project 5 impacts related to Cultural Resources are further reduced with the adoption of the following feasible mitigation measures:

CUL-1: In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist and Native American Monitor shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites.

If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.

CUL-2: In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.

PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. The paleontologist shall develop and execute a PRMMP and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find to allow evaluation of the find and determination of appropriate treatment according to the Program.

2.6 GEOLOGY AND SOILS

Potential Effect:

Project 5 would have a significant effect on Geology and Soils if it would: expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic related ground failure, including liquefaction and lateral spreading; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides; result in substantial soil erosion or the loss of topsoil; 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; be located on expansive soil; have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater; or conflict with the Hillside Management Area Ordinance or hillside design standards in the County General Plan Conservation and Open Space Element.

Finding:

Project 5 will not have a significant effect on the environment related to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

Project 5 and the Project 5 gen-tie line are not located in an active or potentially active fault zone according to the California Geological Survey ("CGS") Seismic Hazard Zone Maps (CGS 2008) and Alquist-Priolo Earthquake Fault Zoning Map (CGS 2010). The closest fault zones are the San Andreas Fault Zone, which is located approximately 3.1 miles to the south southwest of the Project 5 site, and the Garlock Fault Zone, which is located approximately 20 miles northwest of the Project 5 site. Based on research and available information, Project 5 is susceptible to seismicity, but is not susceptible to fault rupture; therefore, impacts involving the rupture of a known earthquake fault will be less than significant. **(DEIR at 4.6-14)**.

The United States Geological Survey ("USGS") National Seismic Hazard Map (2008) indicates that Project 5 and the Project 5 gen-tie line are located in an area mapped from 60 to 80 percent gravity for peak horizontal acceleration with a 10 percent probability of exceedance in the next 50 years. According to the USGS, and dependent on structural design, 10 percent gravity is the lower threshold at which damages to structures are likely to occur. Based on geologic and soil conditions at the site, the USGS Ground Motion Parameter Calculator indicates that Project 5 facilities will need to be designed to sustain spectral accelerations of approximately 0.7 to 1.646 percent gravity (USGS 2012). **(DEIR at 4.6-17)**.

Project 5 has the potential to be subjected to ground motion during construction. However, because of the temporary nature of the construction period relative to the frequency of occurrence of significant seismic events, the potential for Project 5 construction to expose people or structures to substantially adverse effects due to seismicity and ground motion will be less than significant. **(DEIR at 4.6-17)**. During operation of the facility, all Project 5 structures and operational facilities will be designed in accordance with the California Building Code ("CBC") and applicable industry standards. The design and construction of Project 5 would comply with all applicable building codes and standards established by regulatory agencies, including the Los Angeles County Department of Public Works and the CBC. Therefore, Project 5 impacts related to seismic shaking and strong ground motion hazards would be less than significant. **(DEIR at 4.6-18)**.

The CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 5 or the Project 5 gen-tie line as being located in zones with the potential for liquefaction or ground failure. Additionally, Project 5 is located on poorly sorted coarse grained materials with groundwater typically greater than 100 feet below ground surface (bgs) (USGS 2008). Based on available geologic information, the potential susceptibility of ground failure is less than significant for Project 5 construction and operation. **(DEIR at 4.6-19)**.

The location of Project 5 and its associated gen-tie lines contain generally low slopes of less than 1 to 2 percent gradient. As indicated in the Project description, development of the solar facility would not result in significant changes to existing site grades, and would not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 5 as being located in zones susceptible to landslides or slope failure. Therefore, the potential susceptibility for slope failure and landslides during construction and operation is less than significant for Project 5. **(DEIR at 4.6-20)**.

The soil series at the location of Project 5 and the Project 5 gen-tie line was indicated to be Greenfield sandy loam and Ramona coarse sandy loam. These soil series have an erosion factor of 0.24 to 0.28, indicating a medium susceptibility to water erosion, and a wind erodibility group of 3, indicating a low to medium susceptibility to wind erosion. Implementation of appropriate erosion and sediment control BMPs will be implemented during construction and operation of Project 5, as outlined in Draft EIR Hydrology Section 4.9 and Air Quality Section 4.3, and will mitigate potential impacts to less than significant levels. **(DEIR at 4.6-22)**.

Based on the information in the Geotechnical Critical Issues Analyses and Custom Soil Resource Reports prepared by Tetra Tech, the location of Project 5 and the Project 5 gen-tie line contains generally low gradient slopes. Development of solar facilities will not result in significant changes to existing site grades, and will not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) indicates that Project 5 is not susceptible to landslide or liquefaction hazards. **(DEIR at 4.6-24)**.

Although subsidence has occurred throughout the Antelope Valley, the majority of subsidence has been concentrated near the City of Lancaster and was caused by excessive groundwater pumping and decreased water levels. Subsidence in the vicinity of Project 5 was between 0 to 3

feet from 1930 to 1992, and there has been no surficial evidence such as fissures and differential settling observed near the Project 5 location. Based on historic rates of subsidence and a relatively stabilizing water level due to reduced pumping and proposed aquifer management, future subsidence is expected to be minimal. In the event that minor future subsidence does occur, the potential impact to the proposed structural design (post mounted racking systems and relatively small foundations for electrical equipment) would be minimal. Based on geologic data and the proposed construction and operation as described in the Project description, Project 5 impacts to on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse will be less than significant. **(DEIR at 4.6-24, 25)**.

The soil series at the location of Project 5 and the Project 5 gen-tie line was indicated to be Greenfield sandy loam and Ramona coarse sandy loam. This soil series is rated for a low shrink/swell potential, and the potential for expansive soils to affect Project 5 is less than significant. **(DEIR at 4.6-26)**. Project 5 does not propose the use of any sanitary facilities that will require septic tanks or sanitary wastewater disposal during either construction or operation. Therefore, no impact will occur. Project 5 is located on the floor of the Antelope Valley where the terrain is nearly flat. Project 5 is not located in the hillside area, and is not affected by Hillside Management Areas. **(DEIR at 4.6-26)**.

2.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Project 5 would have a significant impact related to Greenhouse Gas Emissions and Climate Change if it would: generate direct or indirect GHG emissions that may have a significant impact on the environment, based on any applicable threshold of significance; or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Finding:

Changes or alterations have been required in, or incorporated into Project 5 which mitigate or avoid the potentially significant environmental effects related to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

Project 5's short-term GHG emissions during the construction phase (maximum daily emissions of 5,450 pounds per day) would not exceed the AVAQMD significance threshold for maximum daily emissions (548,000 pounds per day). As such, Project 5 would not exceed thresholds or result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-22)**.

Because construction of the six Project sites may overlap, concurrent construction emissions of Projects 1-6 were analyzed by emissions per year and thus compared to the annual GHG threshold of 100,000 metric tons of CO_{2e} per year, for long-term emissions. The unmitigated peak annual construction levels for all six Project sites are expected to result in annual GHG

emissions below the most stringent annual threshold proposed by the AVAQMD (100,000 tons per year). As such, the Project will not exceed thresholds or result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-23)**.

During operations, Project 5 facility operation would be limited to general maintenance, panel washing, and security. The primary source of emissions during operations is mainly the vehicles used by facility maintenance staff to and from the site. It is anticipated that operations and maintenance would utilize one water truck for panel washing and one light duty truck twice per year. Although Project 5 is scheduled for bi-annual panel washing, a maximum of ten trips were assumed for each Project (four round trips plus one additional round trip to be conservative). The operation emissions provided for each Project are considered the Project's baseline emissions, since it does not include any solar energy reductions. Because operations-related GHG emissions are considered long term, the AVAQMD daily significance threshold of 100,000 metric tons of CO_{2e} per year was used to analyze impacts during operations. The total annual operational emissions for Project 5 are 3.43 tons of CO_{2e} per year, which is well below the AVAQMD threshold of 100,000 tons per year. **(DEIR at 4.7-26)**. Likewise, concurrent operation of all six Projects is estimated to generate approximately 31 metric tons of CO_{2e} annually, which is well below the AVAQMD threshold. **(DEIR at 4.7-27)**.

Construction-related emissions from Project 5 would be temporary and finite in nature, below the applicable thresholds, and are consistent with the AB 32 Scoping Plan. Accordingly, Project 5's construction-related GHG emissions would not be a cumulatively considerable contribution to climate change. Project 5's operational GHG emissions would be negligible and would not comprise a cumulatively considerable contribution to climate change and, therefore, would be less than significant. **(DEIR at 4.7-28).**

Furthermore, with implementation of Project 5, there would be an added environmental benefit of displacing GHG emissions in the region. The solar energy generation would offset emissions from electricity usage, which would otherwise be produced by fossil-fueled power generation facilities using petroleum, natural gas, or coal combustion. Project 5 would result in a temporary increase in GHG emissions which is below the most stringent proposed threshold; employ active solar technologies supportive of the state's goals to reduce GHG emissions; and is consistent with the County of Los Angeles's goals. **(DEIR at 4.7-29)**.

Project 5 would therefore be in accordance with the state's need for the construction of renewable energy power plants to meet the state's GHG reduction objectives including:

- California's RPS that requires California's investor-owned electric utilities to obtain 20 percent of the electricity that they supply by 2010 from renewable sources;

- Executive Order S-14-08, which established the RPS targets for California that "all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020";

- Executive Order S-03-05 on climate change to advance renewable energy and other solutions to reduce California's GHG emissions; and

- The California Global Warming Solutions Act of 2006 (AB 32) that established a comprehensive program of regulatory and market mechanisms to reduce GHG emissions to 1990 levels by the year 2020.

Project 5 includes various project design features and objectives that address global climate change and reduce GHG emissions, as do each of the Projects 1-6. Project design features include aspects of the Project that either must be incorporated as part of the conditions of approval, or that the Applicant has committed to include to reduce GHG impacts associated with the Project. The Projects would be designed to reduce emissions through specific goals set. The expected Project features would directly or indirectly result in lower emissions of GHGs. The Project design features that address global climate change impacts include the following:

- Vegetation to sequester GHGs
    - Preserve natural areas by mowing, which maintains the organic material in the soil
    - Preserve open space by limiting constructing on portions of Project site
    - Plant trees and shrubs along the edges as buffers to adjacent receptors

- Construction limitations to minimize GHG emissions
    - Limit construction equipment idling beyond regulation requirements
    - Limit number of simultaneous construction projects by phasing

As such, Project 5 would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions. **(DEIR at 4.7-30)**. In addition to the Project design features listed above, the Project's impacts related to Greenhouse Gas Emissions and Climate Change are further reduced with the adoption of the following feasible mitigation measures:

GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

GHG-3 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.

GHG-4 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

2.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Project 5 would have a significant effect on Hazards and Hazardous Materials if it would: create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials; 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; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses; be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment; for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; for a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area; impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; expose people or structures to a significant risk of loss, injury, or death involving fires, due to location within a Very High Fire Hazard Severity Zones (Zone 4); expose people or structures to a significant risk of loss, injury or death involving fires, due to location within a high fire hazard area with inadequate access; expose people or structures to a significant risk of loss, injury or death involving fires due to location within an area with inadequate water and pressure to meet fire flow standards; expose people or structures to a significant risk of loss, injury or death involving fires due to location within proximity to land uses that have the potential for dangerous fire hazard; or constitute a potentially dangerous fire hazard.

Finding:

Changes or alterations have been required in, or incorporated into Project 5 which mitigate or avoid the potentially significant environmental effects related to Hazards and Hazardous Materials.

Facts Supporting the Finding:

Project 5 would not require extensive or ongoing use of hazardous materials. Hazardous materials used during the construction of Project 5 would be typical of most construction projects of this type. Hazardous materials used during construction activities may include gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, and other supplies. All hazardous materials would be transported, stored, and properly disposed of in compliance with all applicable laws and regulations. The accidental release of hazardous materials or wastes during construction activities is possible. The accidental release of hazardous materials or wastes would

be promptly contained and abated in accordance with all applicable laws and regulatory requirements, and therefore is not expected to result in a significant impact. **(DEIR at 4.8-11)**. During operation of Project 5, limited quantities of hazardous materials would be stored on-site. These materials would include fire suppressant and transformer insulating oil (mineral oil). The mineral oil would be contained within Project 5 electrical transformers and switches. Project 5 would develop and implement a hazardous materials and hazardous waste management program for both construction and operational phases. The program would include the following, as required by applicable regulations. **(DEIR at 4.8-11)**.

- **Hazardous Materials and Hazardous Waste Handling:** The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 5. This program would be implemented prior to the start of construction activities. The program would prescribe proper hazardous material use, storage, and disposal requirements, as well as hazardous waste management procedures. The program would identify specific types of hazardous materials to be used during Project 5 construction and operation, and specific types of wastes that will be generated. All personnel would be provided with Project-specific training. These programs would be developed to ensure that all hazardous materials and hazardous wastes would be handled and disposed of in a safe and environmentally sound manner consistent with all applicable laws and regulations. Employees and contractor personnel handling wastes would receive hazardous materials training and be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and treatment, storage, and disposal facility ("TSDF") training in accordance with Occupational Safety and Health Administration ("OSHA") Hazard Communication Standard and 22 CCR. Prior to the start of construction of Project 5, a Hazardous Materials Business Plan ("HMBP") will be prepared and submitted in accordance with Chapter 6.95 of the California Health and Safety Code and Title 22 CCR, as required by the Certified Unified Program Agency.

- **Construction Stormwater Pollution Prevention Plan:** The construction contractor would prepare a site-specific SWPPP for review and approval by the appropriate regulatory agencies and implement it prior to the start of demolition or construction activities at Project 5. The SWPPP would utilize BMPs to address the storage and handling of hazardous materials and sediment runoff during demolition and construction activities.

- **Transport of Hazardous Materials and Hazardous Wastes:** Hazardous materials transported by truck would include fuel (diesel fuel and gasoline) and oils and lubricants for equipment. Transportation of hazardous waste may include hazardous building materials and small amounts of construction waste such as waste oils, solvents, or cleaners. The construction contractor would prepare written procedures for the transport of hazardous materials and hazardous waste in accordance with the California Vehicle Code, California Highway Patrol Regulations (CCR Title 13); Department of Transportation Regulations, Title 49, CFR; and U.S. Environmental Protection Agency Regulations, Title 40 CFR, and CCR 22 regulations prior to the start of construction activities at Project 5.

- **Fueling and Maintenance of Construction Equipment:** The construction contractor would prepare written procedures for the fueling and maintenance of construction equipment prior to the start of construction activities at Project 5. Vehicles and equipment would be refueled off-site or on-site by refueling trucks. If on-site refueling or maintenance activities are required, refueling and maintenance procedures would include implementation of BMPs to ensure that chemicals do not come in contact with the ground. Equipment will be inspected daily for potential leakage or failures.

- **Emergency Release Response Procedures:** The construction contractor would prepare an Emergency Release Response Plan ("ERRP") detailing the response to releases of hazardous materials. The ERRP would be prepared prior to the start of construction activities at Project 5. The ERRP would prescribe hazardous materials handling procedures for reducing the potential for a release during construction activities, and would include an emergency response program to ensure the rapid and safe cleanup of any accidental spills. All hazardous material spills of threatened release would be immediately reported. All construction and operations personnel would be aware of federal, state, and local emergency response reporting guidelines. Implementation of the aforementioned hazardous materials and hazardous waste management programs would reduce the potential impacts associated with the handling, transport, and use of hazardous materials during both construction and operation of Project 5 to less than significant levels. **(DEIR at 4.8-12)**.

If lead based paint is found during construction of Project 5, the Applicant would comply with County requirements and provide a copy of the qualifications/license of the lead based paint abatement contractor that will perform the abatement or removal of lead based paint to the Department of Public Works Building and Safety Division and the County of Los Angeles Fire Department Health and Hazardous Materials Division. If required by the County, the Applicant would prepare and submit a Hazardous Building Materials Demolition Assessment and Management Plan to the Department of Public Works and Fire Department for review and approval to ensure compliance with all applicable federal, State, and local laws, and regulations. OSHA regulations are in place to assure that these materials are safely removed prior to or during demolition and renovation activities. In compliance with regulations requiring removals by firms and individuals licensed to do such work pursuant to applicable regulations the Project's potential impacts regarding lead exposure would be less than significant. Implementation of the aforementioned ERRP would reduce the potential impacts associated with upset and accidental release conditions at Project 5 (and gen-tie lines) to less than significant levels. **(DEIR at 4.8-13)**.

Project 5 would convert sunlight directly into electrical energy without the creation of hazardous emissions, and no impact to sensitive land uses would occur as a result of hazardous emissions. The primary emissions created by Project 5 (and gen-tie lines) would be air emissions from vehicle and equipment exhaust generated during construction activities. Potential impacts due to air emissions created during construction and maintenance activities at Project 5 would be less than significant, as discussed in Section 4.3 of the DEIR. **(DEIR at 4.8-13)**.

Based on the Environmental Data Review ("EDR"), the location of Project 5 and the Project 5 gen-tie line is not located at a known site that is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5. No known releases have occurred at Project 5 or adjacent to Project 5. Based on the information compiled in the EDR, Project 5 would have no impact due to site hazards to the public and environment during construction or operations. **(DEIR at 4.8-14)**.

Project 5 is not located within an airport land use plan area or within 2 miles of a public use airport or private airstrip. Therefore, Project 5 would have no impact on public use airports. **(DEIR at 4.8-15, 16)**.

Emergency response and evacuation procedures for Project 5 would be coordinated by the Los Angeles County Sheriff's Department ("LACSD") and the Los Angeles County Fire Department ("LACFD"). During Project 5 construction activities, the LACSD and LACFD require that adequate vehicular access be provided and maintained. The Traffic Control Plan for Project 5 would provide for the required access of emergency vehicles during construction activities. During operation of Project 5, Project operation staff would work with both the LACSD and the LACFD to ensure adequate emergency procedures are in place. The HMBP would include an Emergency Response Plan. Additionally, an Emergency Action Plan and a Fire Prevention Plan would be prepared for Project 5 as required by Cal/OSHA. These plans would ensure that Project 5 would have established plans and procedures for responding to emergency situations, and would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, Project 5 impacts to emergency response plans or emergency evacuation plans would be less than significant during both construction and operations. **(DEIR at 4.8-17)**.

Project 5 is not located within a Very High Fire Hazard Severity Zone. No impact would occur in this regard. **(DEIR at 4.8-17)**. A public water system for fire control does not exist near Project 5. The facility design includes a dedicated 10,000-gallon fire water storage tank to be installed and maintained at Project 5, in compliance with LACFD Regulation 19 and other applicable Fire Department water tank specifications. Because the SGF design includes a dedicated fire water tank meeting Fire Department requirements, the water and pressure would meet fire flow needs. Therefore, impacts would be less than significant. **(DEIR at 4.8-18)**.

Project 5 is surrounded by rural agricultural lands with no industrial uses, manufacturing uses, or other particularly high fire hazard uses in the vicinity. Project 5 would comply with all applicable Fire Code and County and City ordinance requirements, and fire safety standards, as stated in DEIR Section 4.12 Public Safety. A Fire Management Plan, which would be prepared for Project 5, establishes standards and practices that would minimize the risk of fire and, in the event of fire, provide for immediate suppression and notification. Therefore, a less than significant impact would occur. **(DEIR at 4.8-18)**.

Project 5 will convert sunlight into electrical energy through a process which would not constitute a fire hazard. All materials and equipment used in the construction of each facility would be specified based on applicable codes and building regulations. Welding activities may also potentially result in the combustion of brush and vegetation. A Fire Protection and

Prevention Plan would reduce these potential impacts to less than significant. A Fire Prevention Plan would be prepared for Project 5 as required by Cal/OSHA, and Project 5 would include a dedicated 10,000- gallon fire water storage tank in compliance with LACFD Regulation 19. Therefore, Project 5 does not constitute a potentially dangerous fire hazard, and would have a less than significant impact on fire hazards in the area. **(DEIR at 4.8-19)**.

Project 5 impacts related to Hazards and Hazardous Materials are further reduced with the adoption of the following feasible mitigation measures:

HH-1 Prior to the start of construction activities, a Hazardous Materials Management and Hazardous Waste Management Plan shall be implemented for each project.

HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.

HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated.

2.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Project 5 would have a potentially significant impact on Hydrology and Water Quality if it would: violate any water quality standards or waste discharge requirements; 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; 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; 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; 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; generate construction or post-construction runoff that would violate applicable stormwater National Pollutant Discharge Elimination System ("NPDES") permits or otherwise significantly affect surface water or groundwater quality; 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); result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance; 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); otherwise substantially degrade water

quality; 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; place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain; 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; or place structures in areas subject to inundation by seiche, tsunami, or mudflow.

Finding:

Changes or alterations have been required in, or incorporated into Project 5 which mitigate or avoid the potentially significant environmental effects related to Hydrology and Water Quality.

Facts Supporting the Finding:

A Notice of Intent form would be submitted to the State Water Resources Control Board ("SWRCB") to apply for coverage under the NPDES General Permit for construction of Project 5. During construction, Project 5 would implement BMPs as specified in the site-specific SWPPP. The SWPPP would be developed by a State of California certified Qualified SWPPP Developer ("QSD") and during construction monitored by a State of California certified Qualified SWPPP Practitioner ("QSP"). The SWPPP would be approved by the County and uploaded to the State via the State SMARTs system prior to Project 5 ground-breaking. The SWPPP would identify construction-phase BMPs to be implemented. With implementation of the BMPs, Project 5 and its associated gen-tie lines would only have the potential to generate less than significant effects on groundwater and/or stormwater runoff, and will not violate any water quality standards or waste discharge requirements during construction. **(DEIR at 4.9-34; 4.9-38)**.

During Project 5 operations, mechanical equipment on the solar farm would either be made of pollutant free materials or fitted with special containment units to house any possible drips or spills of lubricants, oils, or other chemicals. Maintenance activities, including solar array washing, would be performed with clean water and allowed to evaporate or drip to the ground. Maintenance and operations personnel would be required to maintain all necessary spill prevention, control, and countermeasures on hand during site visits. These spill response kits would include, but are not limited to, personal protective equipment, spill pads, absorbents, booms, shovels, garbage bags, plastic sheeting, and disposal drums. Permanent treatment BMPs would include infiltration basins to preserve water quality. With these spill prevention, control, and countermeasures on-site, there would be a less than significant impact on groundwater and stormwater runoff quality, and Project 5 will not violate any water quality standards or waste discharge requirements during operation. **(DEIR at 4.9-34; 4.9-38).**

As stated in Section 4.14.5 of the DEIR, water would be required for dust control measures during the duration of construction efforts. An analysis of the water supply, including the use of well water, is presented in DEIR Section 4.14 Utilities and Service Systems. At the outset of construction, water would be supplied via truck to meet the demands of Project 5. Well water is not considered available at this time, and would be reevaluated upon a change in status. The demands of Project 5 are anticipated to have a less than significant impact on the region's groundwater supplies. Furthermore, construction activities are not anticipated to interfere

substantially with groundwater recharge. As stated in Section 4.14.5 of the DEIR, water may be required in the first few years of operation to establish the mature vegetation planted after construction. Similar to the construction period, water would be supplied via truck to Project 5. The volume of water required would be considerably less than the water required for construction activities. Well water would be considered if its availability changes. As with construction, impacts to the region's groundwater supplies are anticipated to be less than significant with operation of Project 5. Also, the effect on groundwater recharge by the development's increase in impervious surface will be mitigated by the proposed infiltration basins. These infiltration basins will allow the increase in runoff volume from the proposed development (up to the 25-year storm event) to infiltrate on-site and recharge the groundwater basin. Therefore, less than significant impacts to groundwater recharge are anticipated. **(DEIR at 4.9-35)**.

During construction of Project 5 and its associated gen-tie lines, soils would be disturbed through activities such as minor grading and vegetation removal, which could lead to issues with soil erosion and siltation on- and off-site. Through the implementation of construction control measures per California Association of Stormwater Quality Agencies ("CASQA") standards (silt fencing, fiber rolls, and sandbag barriers), Project 5 would have less than significant impacts on erosion and debris deposition during construction (CASQA 2003). Project 5 and its associated gen-tie lines would require minor grading on-site which would not drastically change the existing drainage patterns or natural channels. Best Management Practices and the Hydrology Study/Drainage Concept/Standard Urban Stormwater Mitigation Plan ("SUSMP")/Low Impact Development ("LID") Reports would help account for the increase in runoff erosion capabilities resulting from the developments' increase in impervious surfaces. The infiltration basins would help reduce flow velocities and the sediment load of the runoff, which would lower the erosion and siltation capabilities of the runoff. Therefore, Project 5 would result in less than significant impacts to erosion and siltation on- and off-site. **(DEIR at 4.9-36)**.

Project 5 and its associated gen-tie lines would require minor grading on-site, which would not drastically change the existing drainage patterns or natural channels. The increase in runoff flow rates and volumes from the developments' increase in impervious surfaces would be addressed by Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to pre-development flow conditions before leaving the project site. With this measure, less than significant impacts would occur related to flooding on- and off-site. **(DEIR at 4.9-36)**.

Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would address the increase in runoff flow rates and volumes from the developments' increase in impervious surfaces. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to predevelopment flow conditions before leaving the Project site. The basins would be placed within the first half of the site to allow flows over the roads sections enough time to normalize before leaving Project 5. Project soils would treat the captured runoff at the infiltration basins.

Therefore, less than significant impacts to existing or planned stormwater drainage systems are anticipated. Also, significant impacts to polluted runoff are not anticipated. **(DEIR at 4.9-36)**.

Project 5 and its associated gen-tie lines would incorporate Los Angeles County LID standards, while following the requirements of the Los Angeles County Department of Public Works ("LACDPW"). Existing on-site drainage patterns and channels would not be significantly altered by the Projects' minimal grading, and all off-site drainage patterns and channels would not be significantly impacted either. Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would allow the developments' increase in runoff (up to the 25-year storm event) to be both infiltrated and treated on-site. This also minimizes downstream impacts by returning to predevelopment flow conditions. Therefore, Project 5 will not conflict with the Los Angeles County Low Impact Development Ordinance. **(DEIR at 4.9-38)**.

Project 5 and its associated gen-tie lines are not in the vicinity of any SWRCB-designated Areas of Special Biological Significance. Therefore, no impacts are anticipated. During construction, wastewater treatment systems would not be necessary. The Projects would contract services to supply and maintain portable toilets. Therefore, the impacts of Project 5 to the quality of groundwater and surface water would be less than significant during construction. The same portable toilet services would be contracted for operations. Temporary portable toilet services would be delivered during the required maintenance periods on an as needed basis. As a result, there would be less than significant impacts to the water quality of groundwater and surface water during Project 5 operations. **(DEIR at 4.9-39)**.

Project 5 is not located within a 100-year flood hazard area, floodway, or floodplain, and does not involve the construction of housing. Therefore, no housing will be placed within a 100-year flood hazard area, and no impacts are anticipated. **(DEIR at 4.9-39, 40)**.

Project 5 and its associated gen-tie lines are not within the immediate vicinity of any levees or dams which would place people or structures at risk of significant loss, injury or death in the event of a failure. In the event of a failure of the aqueduct near Project 5, the distance between the site and the aqueduct would allow the flow to dissipate. Therefore, less than significant impacts are anticipated. Project 5 has slopes that very mild, at less than two percent. Therefore, high mudflow conditions are not anticipated. Accordingly, Project 5 will not place structures in an area subject to inundation by seiche, tsunami or mudflow. **(DEIR at 4.9-40)**.

Project 5 impacts related to Hydrology and Water Quality are further reduced with the adoption of the following feasible mitigation measures:

HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides

and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be available at each project site and a log kept to show education has occurred prior to the start of construction.

HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-3 No hazardous materials are anticipated to be stored on-site. If hazardous materials are required to be stored on-site, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code and store the materials according to applicable regulations. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance with the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often to prevent containers from overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.

2.10 LAND USE AND PLANNING

Potential Effect:

Project 5 would have a significant effect related to Land Use and Planning if it would: physically divide an established community; be inconsistent with 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; be inconsistent with the zoning ordinance as applicable to the subject properties; or conflict with Hillside Management criteria, Significant Ecological Areas conformance criteria, or other applicable land use criteria.

Finding:

Project 5 will not have a significant effect on the environment related to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

Project 5 is located within a sparsely populated area, and is not located within any established community. The closest established community is Antelope Acres, which is located approximately 1.4 miles north of Project 3, the nearest of the six Project sites. Project 5 is located in an area that has been characterized by agricultural uses for several decades, and has been in transition to residential uses or vacant land. Project 5 would not physically alter the community, would not divide any community, or change any public access routes to them. Impacts would be considered to be less than significant. Likewise, Project 5's proposed gen-tie lines would not result in physical improvements that would result in dividing an established community, and the proposed gen-tie line would be located within a public right-of-way or an easement on private land. Therefore, Project 5 would not divide an established community, and impacts would be less than significant. **(DEIR at 4.10-36)**.

Project 5 is not located within the boundaries of a Community Standards District; therefore, no district development standards apply to Project 5. The Antelope Valley Areawide General Plan designates the Project 5 site as N-1, Non-Urban use. According to the Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations (County of Los Angeles 1986). Project 5 is considered a utility installation, and therefore would be consistent with the N-1 land use designation. As a result, Project 5 would be consistent with the General Plan Land Use designation. Development of Project 5 will be consistent with permissible uses associated with the land use designation and the policies, goals, and objectives outlined in the Los Angeles County General Plan and the Antelope Valley Areawide General Plan, and will not be inconsistent with any applicable County plan. **(DEIR at 4.10-36)**.

The gen-tie lines for Project 5 are linear infrastructure that would not result in any changes to the existing land use patterns in the area of Project 5. The gen-tie lines would be located underground within Los Angeles County to the extent practicable, and aboveground within the City of Lancaster, either in a public road ROW or on private lands adjacent to the public road ROW. Within the City of Lancaster, the gen-tie line routes would traverse land use designations "NU" Residential and "UR" in the City of Lancaster. According to the County's Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations. Additionally, the City's NU land use designation permits solar generating facilities and utility installations within its designation. In July 2013, the City approved a General Plan Amendment for the UR designation to NU designation for another applicant's solar project that the gen-tie line would traverse to connect to the Antelope Substation. A franchise agreement will be obtained by the Applicant with the City of Lancaster for the gen-tie line that will traverse through this jurisdiction. This agreement will grant a utility franchise and right of way privileges for the proposed gen-tie line. Therefore, no impact to County and City Plans would occur**.** **(DEIR at 4.10-37)**.

The Project 5 site and its associated gen-tie line would not be located within the Fox Airfield's airport influence area ("AIA"). **(DEIR at 4.10-37)**.

The County's CUP entitlement process involves the discretionary review of a project, whereby conditions of approval for Project 5 would be assigned. A CUP Burden of Proof is required to be submitted to determine Project 5's consistency with the General Plan, compatibility with surrounding land uses, conditions to ensure compatibility, land suitability and physical constraints, project design, availability of adequate access, public services and facilities to serve the development, and identify potential environmental impacts and mitigation measures. As shown in DEIR Tables 4.10-1, 4.10-2, and 4.10-3, Project 5 is consistent with County land use designations and compatible with adjacent and surrounding land uses. **(DEIR at 4.10-43)**. The implementation of the environmental mitigation measures and CUP conditions would be expected to minimize Project 5's potential impacts, such that the Project could occur while maintaining zoning compliance within the designated zone. As a result, Project 5 would be consistent with the County's zoning designations. Permitting processes for those portions of the gen-tie lines located in the City of Lancaster would require necessary approvals from the City. Compliance with applicable City zoning regulations and conditions would ensure consistency with City's zoning designations. **(DEIR at 4.10-38)**.

Project 5 and lands adjacent to its associated gen-tie line ROW are located within the County's Heavy Agriculture (A-2) Zone. Project 5 is considered equivalent to an electric generating plant. Under the County zoning code for the A-2 zoning designation (Los Angeles County Code Section 22.24.150), electric generating plants and transmission substations are allowed in the A-2 zones with the issuance of a CUP. Lands adjacent to the gen-tie line for Project 5 would consist of the City's RR 2.5 Zone. The proposed gen-tie lines would be constructed underground within Los Angeles County unless other applicable regulations require above-ground installation and aboveground or underground within the City of Lancaster. The gen-tie lines would be located on private lands adjacent to the public road ROW or within the public road ROW. They are linear facilities that would not result in any changes to the existing land use patterns in the Project 5 area, and would be permitted as part of respective County CUP and City permitting requirements. **(DEIR at 4.10-38)**. As a result, implementation of Project 5 and its associated gen-tie lines would be expected to be consistent with County and City zoning designations, and would result in a less than significant impact relative to the A-2 zoning in Los Angeles County and the RR 2.5 zoning in the City of Lancaster.

As discussed in DEIR Section 4.4 Biological Resources, Project 5 and its associated gen-tie lines are not located within a designated SEA; therefore, SEA conformance criteria do not apply. Project 5 and the area for its associated gen-tie lines contain generally low slopes of 1 to 2 percent gradient, and would not be located within or conflict with designated Hillside Management Areas. Therefore, no impacts would occur. **(DEIR at 4.10-39)**.

Project 5 is located within an Agricultural Opportunity Area, as discussed in Section 4.2 of the DEIR. Project 5 would generate electrical power through renewable solar PV technology which is an allowable use with a CUP. Project 5 would convert land that was formerly used for agricultural production, to renewable energy production. Construction and operation of Project 5 would not involve other restrictions, obstructions, or resources that could result in conversion of farmland to nonagricultural use. Additionally, Project 5 would be located on fallow land that is

currently not irrigated, with surrounding parcels being mostly undeveloped and fallow agricultural land. Project 5 would produce power in a passive manner and would result in minimal air emissions, traffic, and noise, and would not affect adjacent agricultural operations. Therefore, a less than significant impact would occur. **(DEIR at 4.10-40)**.

Project 5 contain no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance **(DEIR at 4.10-40)**. Project 5 is not located within a Noise Management Area. **(DEIR at 4.10-41)**.

Project 5 is located within the 500-year floodplain Zone X (Unshaded). These areas are known to be of a very low flood risk. The Project 5 gen-tie lines are located within the 100-year (Zone A) and 500-year (Zone X, Shaded) floodplains. Measures would be taken in the design of the gen-tie lines in order to account for the flood hazards. All of the Project 5 site would be developed, and measures would be taken in the design of the site's solar panels and gen-tie line, to account for the flood hazards. Therefore, a less than significant impact would occur. **(DEIR at 4.10-41)**.

2.11 NOISE

Potential Effect:

Project 5 would have a significant Noise impact if it would: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the project; result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or, for a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Finding:

Changes or alterations have been required in, or incorporated into Project 5 which mitigate or avoid the potentially significant environmental effects related to Noise.

Facts Supporting the Finding:

Construction of Project 5 would take place between the second and fourth quarters of 2014. Sound generated from Project 5 would consist of: (1) short duration sounds resulting from construction activities, and (2) sound during normal facility operations. Vibration from Project 5 would only result during construction. Construction activities would take place only during daytime hours. An evaluation of expected noise and vibration levels was performed, and the ability of Project 5 to comply with applicable noise requirements was assessed.

The Draft EIR determined that the construction noise for Project 5 would be similar to that of Project 1; therefore, the Draft EIR's discussion of Project 5's noise impacts focused on the differences between Project 1 and Project 5, namely received sound levels at the nearest noise sensitive receptor. **(DEIR at 4.11-37)**. These Findings refer to certain facts from the Draft EIR's discussion of Project 1 noise impacts that are also applicable to Project 5.

For Project 5, the following criteria were determined to be inapplicable or to result in no impact:

- Exposure of on-site workers to noise levels that exceed occupational safety standards (90 dBA as a time-weighted 8-hour average or peak noise levels above 115 dBA).

- Exposure of residents to airport or private airstrip-related noise levels above a CNEL of 65 dBA.

Occupational noise exposure is governed by federal and state regulations. Cal/OSHA administers industrial safety regulations in California. Cal/OSHA regulations establish a time-weighted noise exposure limit of 90 dBA averaged over 8 hours (CCR, Title 8, Article 105). Noise source controls, administrative procedures, or worker hearing protection must be provided if worker noise exposure would exceed the 90 dBA limit. The construction contractor selected for the Project would be required to follow Cal/OSHA requirements for construction worker noise exposure. **(DEIR at 4.11-25; 4.11-30)**.

Sound from construction equipment would vary, depending on the construction phase and the number and class of equipment at a location at any given time. Actual received sound levels would fluctuate, depending on the construction activity, equipment type, and separation distances between source and receiver. **(DEIR at 4.11-30)**. Construction noise is a temporary noise source that would only occur during daytime hours. Sound levels from construction are expected to be comparable to sound produced by farm machinery, such as equipment used in nearby agricultural fields. Worst case construction noise levels for the nearest residence would last no more than a few weeks, as construction activities progress across Project 5. Therefore, no one residence would be exposed to significant noise levels for any extended period of time. **(DEIR at 4.11-27)**.

Sound from pile driving would attenuate to 77 dBA at the nearest residence to Project 5, and would attenuate to below 60 dBA within 1 linear mile of this construction activity, depending on meteorological and topographical effects. The average noise level from pile driving is predicted to be 65 dBA, similar to the level resulting at the Project centroid located 1,807 feet from the nearest residence. Because sound levels would be higher than 60 dBA at times, and up to 77 dBA at the closest residence, an exceedance of the County's construction noise level limits is anticipated. Therefore, where pile driving is planned to occur within 3,000 feet of an occupied noise sensitive receptor, an acoustic curtain or sound barrier with a sound transmission class of 19 or greater will be used to reduce received sound levels at the noise sensitive receptors to levels at or below the County's construction noise limit of 60 dBA. Pile driving is expected to last more than 10 days, and a variance from the County of Los Angeles noise ordinance will be required. **(DEIR at 4.11-42)**.

Traffic noise generated during construction of Project 5 on and offsite would temporarily add to overall sound levels. As a general construction practice, functional mufflers would be maintained on all equipment to maintain noise levels as low as reasonably achievable. The Project 5 Applicant would make reasonable efforts to minimize noise resulting from construction activities, as described in Mitigation Measures N1 - N6. In sum, with mitigation measures implemented, including the use of sound curtains or barriers during pile driving, construction sound levels would be less than significant. **(DEIR at 4.11-27; 4.11-31)**.

The average vibration level generated by Project 5 construction activities will be 0.01 PPV, which would be barely perceptible to humans. Similar to the noise from pile driving, vibration from pile driving would only last for a few weeks at most, and would move throughout the Project rapidly with no single noise sensitive receptor experiencing the peak 0.04 PPV for more than an few hours, which will be perceptible but will not damage structures. Therefore, exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels due to the construction of Project 5 and the gen-tie line will be less than significant. **(DEIR at 4.11-50)**.

Bohunk's Airpark is located three miles from Project 5. The airpark has very low use levels and no airfield noise contours have been developed. However, due to low operation levels and distance from the airpark, sound levels are assumed to be below 55 dBA CNEL. Project 5 would not create residential land uses, and all Project features are outside the of airfield area of influence. Consequently, there are no impacts from airport-related noise. **(DEIR at 4.11-52)**.

Once operational, Project 5 would generate power using PV modules mounted in rows of parallel racks. The Project is anticipated to be unmanned during normal operation. Systems monitoring would be completed remotely and onsite staff would be limited to repair or cleaning of the PV modules. Maintenance staff would visit two times per year to clean the PV modules, seasonally to clear vegetation, and as needed to perform other general maintenance activities. **(DEIR at 4.11-35)**. Sound sources considered in the operational acoustic analysis include the inverters and transformers associated with the PV modules, the substation, and the transmission line. The principal sources of noise are the cooling-ventilation fans, the electrical components of the inverters and the step-up transformers at the on-site substations. Operational sound sources are all predicted to be less than 35 dBA at nearby noise-sensitive receptors, and would be less than significant. **(DEIR at 4.11-42 to 4.11-44)**.

Project 5 impacts related to Noise are further reduced with the adoption of the following feasible mitigation measures:

N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.

N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.

N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.

N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.

N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.

N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.

N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest noise sensitive receptor are predicted to be above the County construction noise limit of 60 dBA during the day. With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may need to incorporate appropriate mitigation measures, including:

N-8 Siting substations to achieve National Electrical Manufacturers Association ("NEMA") sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project:

- Project 5 – 748 feet with a NEMA sound rating of 82 dBA

N-9 The Applicant shall use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.

2.12 PUBLIC SERVICES

Potential Effect:

Project 5 would have a significant impact on Public Services if it would 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 fire protection; sheriff protection; schools; parks; libraries, or other public facilities.

Finding:

Project 5 will not have a significant effect on the environment related to Public Services. No mitigation is required.

Facts Supporting the Finding:

Project 5 is located within the LACFD Battalion 11 service area. Station 112, which is 4.5 miles northeast of Project 5, is the jurisdictional station (i.e. the first-responder) to respond to incidents at the site. Additional fire stations within Battalion 11 (identified in DEIR Table 4.12-1) would also potentially be dispatched to respond to fire protection needs at the site. **(DEIR at 4.12-9)**.

During construction, workers would be temporary and would not be expected to relocate to the Project 5 area, as they would mostly be hired from the available local workforce, and would not be expected to result in significant changes to the local population; therefore, the construction of Project 5 is not anticipated to create significant changes to the local population that would increase the level of demand on fire protection services or that would increase the level of demand on the fire department services such that additional staff would be needed. **(DEIR at 4.12-9)**.

As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 5 would not result in significant traffic impacts. However, Project 5 would involve construction of an underground 2.4-mile gen-tie line along 110th Street West and West Avenue J. Transmission line construction would require work in the public road ROW, including limited encroachment into the traveled roadway. It is anticipated that the construction of the Project 5 gen-tie line would only require partial street closures, which provide better emergency access than full street closures. Worksite traffic control plans, permits, and coordination with County departments will be required regarding potential construction impacts to 110th Street West and West Avenue J. Additionally, the LACFD Fire Stations 112, 78, and 140 would be notified at a minimum of three days in advance of any street closures that may affect fire/paramedic responses in the area. In the event that Project 5 would require road closures, alternate route details (detour plans) and the schedule of closures would be submitted to the LACFD prior to construction. Implementation traffic Mitigation Measure TT-3 would minimize potential effects to 110th Street West and West Avenue J such that the impact to LACFD access and response times would be less than significant. **(DEIR at 4.12-9)**.

Based on the Applicant's commitment to conformance of construction activities at the Project 5 site and gen-tie line ROW to federal, state, and Los Angeles County ordinances for fire protection, and implementation of mitigation related to Hazards and Hazardous Materials, construction would not be expected to result in significant special fire problems or hazards. Additionally, construction traffic at the site would not be anticipated to have a significant impact on local intersections and road segments. Therefore, Project 5 impacts to LACFD service ratios, response times, or other performance objectives for fire protection would be less than significant. **(DEIR at 4.12-9, 10)**.

Operations activities at Project 5 would typically be associated with routine maintenance carried out on-site and along the associated gen-tie ROWs at periodic intervals by a small maintenance crew. These activities would not result in effects to LACFD service ratios, response times, or other performance objectives for fire protection during operations of Project 5; therefore, impacts would be less than significant. In addition, the Applicant would be required to pay taxes as per the Proposition E Special Tax and property tax assessments, which are allocated to the LACFD. These taxes are designed to provide for potential increases in LACFD fire protection service demands to accommodate for new and existing developments. **(DEIR at 4.12-11).**

The Project 5 site is located within the LACSD Field Operations Region 1 service area. The Lancaster Station, which is approximately 11.4 miles east of Project 5, would likely be the first responder to incidents at the site. Currently the station maintains an officer-to-population service ratio of approximately 1 to 1,000. Project 5 does not involve any residential uses, and would not be considered to result in significant increases to population. During construction, workers would be temporary, and would not be expected to relocate to the area as they would mostly be hired from the available local workforce. The employees are planned to be hired from the available local workforce, and would not be expected to result in significant changes to the local population that would increase the level of demand on law enforcement services. **(DEIR at 4.12-13)**.

Sheriff services potentially required at Project 5 would likely include incidents of vandalism or theft. While these incidents would require sheriff services, they are not considered emergency response incidents, and as such would not affect emergency response times. As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 5 would not result in significant traffic impacts, and any impacts associated with street closures due to installation of the underground gen-tie lines will be addressed through the use of worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts to 110th Street West and West Avenue J. Therefore, impacts from the construction of Project 5 to LACSD service ratios, response times, or other performance objectives for sheriff protection would be less than significant. **(DEIR at 4.12-13, 14)**.

Project 5 and its associated gen-tie lines do not include residential development or the influx of long-term workers from outside the area, and accordingly would not generate population growth. Consequently, no new demands on school facilities, parks, library facilities or other public facilities are expected, and no impact would occur to these facilities. **(DEIR at 4.12-15; 4.12-16)**.

2.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Project 5 would have a significant impact on Transportation and Traffic if it would: 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; conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks; substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); result in inadequate emergency access; or conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Finding:

Changes or alterations have been required in, or incorporated into Project 5 which mitigate or avoid the potentially significant environmental effects related to Transportation and Traffic.

Facts Supporting the Finding:

Traffic generated during the construction phase of Project 5 and its gen-tie line would include construction worker commuter trips, water truck trips, and delivery truck trips. Construction worker commuter trips and delivery truck trips are anticipated to arrive to the Project 5 site outside of peak hours. It is anticipated that 30 percent of water trucks would arrive to the Project site during the AM peak hour. Project 5 would have an average of 75 workers per day and a peak of 100 workers per day over a 20-day period during construction. For equipment and materials, Project 5 would have an average of 4 delivery truck trips per day with an expected peak of 26 delivery truck trips. It is anticipated that construction workers and delivery trucks would arrive to the Project 5 site outside of peak hours. **(DEIR at 4.13-35)**.

Dependent upon climatic conditions during construction, the maximum estimated water use for the Project 5 site is 97 acre-feet, which would be obtained from an off-site provider. Potable water would be brought in to the Project 5 site for drinking and domestic needs. During the site preparation and grading activities, water would mainly be used for soil compaction and control of fugitive dust generation. Subsequent to these construction activities, water usage would primarily be used for on-going dust suppression associated with the remaining construction of the Project. Project 5 would require a total of 40 daily water truck trips arriving on-site. Assuming that 30 percent of the water trucks would arrive on-site during the AM peak hour (7:00 AM), 12 water trucks were used in this analysis. As shown in DEIR Tables 4.13-21 and 4.13-22, the local roads would experience a maximum increase in traffic volume of 48 percent

during the AM peak hour. This is mainly due to the existing low volume and low peak traffic conditions for these roads, which are located in rural areas and operate well below the existing capacity of 1,600 vehicles per lane per hour for a 2-lane road. Therefore, it is concluded that these roads have adequate capacity to safely accommodate the increase from water truck traffic and would have a less than significant impact on the existing traffic conditions. **(DEIR at 4.13-36)**.

During construction of gen-tie lines associated with Project 5, it is anticipated that temporary, one-lane road closures would be necessary. A Project Traffic Plan would be prepared to address the temporary one-lane road closures and submitted to the County for approval prior to issuance/approval of the County Grading Permit, as indicated in Mitigation Measure TT-2. Parking, temporary office trailers, and construction and PV equipment lay-down areas would be located entirely within the Project 5 site boundary. The construction traffic impacts would be temporary, and less than significant with mitigation. **(DEIR at 4.13-36)**.

The operational phase of Project 5 is anticipated to only generate an average of 2 additional vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a maximum of 10 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis for the water truck trips described above, the operational phase vehicle trips are considered negligible. Therefore, no additional post-construction operational analysis was conducted. The Project would not include any buildings, structures, or other operations that would require a change in the existing air traffic patterns. The Project 5 SGF would be connecting to the existing SCEAS via a 3-mile gen-tie line. Transmission line-related radio frequency interference ("RFI") is one of the indirect effects of transmission line operation. RFI is produced by the physical interactions of the electric fields generated by the transmission line. The level of RFI that occurs usually depends on the magnitude of the electric fields involved and the distance from the transmission line. It is usually associated with transmission lines of 345 kV or greater. The Project 5 transmission lines would connect to the SCEAS with a 69 kV gen-tie line (less than 345 kV) and would not adversely impact RFI effects. The operational phase of Project 5 would have a less than significant impact on the traffic and/or transportation infrastructure. **(DEIR at 4.13-37)**. Project 5 would not conflict with any applicable congestion management programs during the construction or operational phases. **(DEIR at 4.13-39)**.

Air traffic would not be impacted by Project 5. Project 5 would not include any buildings, structures, or other operations that would result in a change in existing air traffic patterns. The PV modules that would be used at the Project 5 site would be non-reflective and would not pose a hazard to air traffic. Gen-tie line components would be below the height limit and would not result in a change in existing air traffic patterns. Therefore, impacts would be less than significant. **(DEIR at 4.13-39)**.

No existing roads would be altered by Project 5, and Project 5 does not include design features or uses that would substantially increase any hazards. Parking, temporary office trailers, and construction and PV equipment lay-down areas would be located entirely within the Project 5 site boundary. Only temporary one-lane road closures are expected for the construction of the Gen-tie Lines. A Project Traffic Plan would be prepared to address the temporary one-lane road closures and submitted to the County for approval prior to issuance/approval of the Grading

Permit. Therefore, Project 5 would not result in inadequate emergency access. Project 5 is located in rural areas of Los Angeles County and would not significantly decrease the performance or safety of public transit, bicycle, or pedestrian facilities. **(DEIR at 4.13-40)**.

Project 5 impacts related to Transportation and Traffic are further reduced with the adoption of the following feasible mitigation measures:

TT-1 Prior to issuance of a grading permit, Applicant shall document and submit all required information and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.

TT-2 Prior to any construction activities and/or issuance of required encroachment permits from Los Angeles County, the Applicant shall prepare worksite traffic control plans for review and approval from LACDPW and other affected agencies for any closures, partial closures of public streets, or work within or adjacent to the road right-of-way that impacts the movement of traffic. The Plans shall be prepared in accordance with the California Manual on Uniform Traffic Control Devices (2012).

TT-3 Additionally, the County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-000798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.

TT-4 Stagger construction work shifts before or after peak traffic hours.

TT-5 Schedule truck deliveries during off peak hours.

TT-6 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips. All other trips shall be at off peak hours.

TT-7 Prior to start of construction activities, Applicant shall provide worker education encouraging carpooling and vanpooling by workers and shall provide assistance for organizing vanpools and carpools. A log will be developed to show compliance.

2.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Project 5 would have a significant impact on Utilities and Service Systems if it would: exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards; 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; 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; not 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; 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; be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or 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.

Finding:

Project 5 will not have a significant effect on the environment related to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

The construction of Project 5 and its associated gen-tie lines would generate temporary and limited wastewater as a result of on-site construction workers. The wastewater generated would be collected at the on-site mobile sanitation facilities and then transported to a nearby wastewater disposal facility. In the event that additional wastewater is generated from construction activities, water would be stored in an on-site tank system and would be disposed of at an approved wastewater treatment facility. Construction and operational wastewater will be limited in quantity and significantly below wastewater treatment requirements of Los Angeles County and the RWQCB. **(DEIR at 4.14-14)**.

All wastewater would be treated according to the treatment requirements enforced by the NPDES permit authorized by the Lahonton Regional Water Quality Control Board ("LRWQCB"). Additionally, semi-annual washing of the PV modules would generate minimal wastewater during operation. However, since the wash water would only consist of demineralized water and dust washed off of the modules, it would not need to be treated at a wastewater treatment facility. This wash water would be allowed to infiltrate into the ground and evaporate as it drips off the PV modules. The wastewater generated from maintenance workers would be collected at the on-site temporary mobile sanitation facilities and then transported to a nearby wastewater treatment facility. Project 5 would not exceed the requirements of LRWQCB,

and therefore impacts would be less than significant. **(DEIR at 4.14-14)**. Likewise, construction and operation of Project 5 would not exceed the capacity of any treatment plant, and would have no impact to a wastewater system. Consequently, no new wastewater treatment facilities would need to be created and no existing facilities would need to be expanded. The maximum construction water use of Project 5 is 97 acre feet, and the maximum operational water use of Project 5 is 2.9 acre feet per year. No water system capacity problems would be created, and no new water systems or expansion of existing systems would be required. **(DEIR at 4.14-17)**.

Project Site 5 currently drains from southwest to northeast; the post-development condition would maintain this flow path. A SWPPP incorporating BMPs for temporary stormwater management would be prepared and approved before the construction of Project 5 and its gen-tie lines. The final design of Project 5 would allow the pre-development runoff amount to continue to sheet flow in the post-development condition to avoid disturbance to downstream drainage structures or wildlife. The design of Project 5 would eliminate the need for new drainage facilities or expansion of existing facilities. Therefore, Project 5 would have a less than significant impact on drainage facilities. **(DEIR at 4.14-18)**.

The construction for Project 5 and the Project 5 gen-tie lines would create a short-term temporary demand for water, primarily in association with dust control. The Applicant would provide a Dust Control Plan to the County prior to the start of construction activities. The plan would detail site-specific dust control measures designed to minimize water use during construction activities, while minimizing fugitive dust emissions. Project 5's maximum construction water use is 97 ac-ft. It is estimated that the Project 5 site would have potentially historically required at least 416 ac-ft of water per year for agriculture. Thus, the maximum construction water use of Project 5 is substantially less than the best estimate of water use of 416 AFY for agriculture, which was historically the primary land use of surrounding land. Based on potential estimated historic groundwater use at the site, there may be adequate groundwater supply within the western portion of the Basin to meet Project 5's construction water needs. In addition, according to the Antelope Valley Integrated Regional Water Management Plan ("IRWMP"), groundwater is considered a reliable water source in the Antelope Valley Groundwater Basin. **(DEIR at 4.14-23).**

However, given that the Adjudication will not likely be resolved during construction of Project 5, water for Project 5 would be supplied via truck from either Homer LLC, or the City of Lancaster, both of which have provided "Will Serve" letters indicating their ability to meet the water demands of Project 5. Homer LLC would provide out-of- Basin water stored in the Antelope Valley Water Bank. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**.

As previously discussed, the potential estimated historical agricultural water usage for the Project 5 site was determined to be at least 416 AFY. Project 5's maximum construction water use is 97 ac-ft, which equates to 76.7 percent less than the potential estimated historical annual agricultural groundwater usage at the site. Either of the sources noted above would have

sufficient reliable water supplies available to serve the Project 5 construction demands from existing water source entitlements and water resources. Therefore the impacts from water usage during construction would be less than significant. **(DEIR at 4.14-24)**.

During operations, the maximum water use for Project 5 would be 2.9 AFY, which equates to less than 1 percent of the historical groundwater usage at the site. A maximum of 2.9 AFY of additional water may be needed in the first 2 years of operation to establish the plants for the landscaping buffer. It is unlikely, but possible that additional water (up to 2.9 AFY) may be needed later during the operations phase for supplemental plantings if landscape vegetation expires and has to be replaced. **(DEIR at 4.14-24)**. As with the Project 5 water needs during construction, during operations Homer LLC would also provide out-of-Basin water stored in the Antelope Valley Water Bank. This option would provide a reliable source of water for operations. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**. Therefore, the impacts from water usage during operations would be less than significant. **(DEIR at 4.14-24)**.

Project 5 and its associated gen-tie lines do not require natural gas or propane during construction or operation; therefore there would be no system capacity problems for those utilities. Since natural gas and propane are not needed for Project 5, no new energy facilities would need to be created, and no existing facilities would need to be expanded. Project 5 may require electricity for the construction equipment and for lighting construction activities. The electricity would likely come from one of the existing SCE lines located on the west and south sides of the site. Electricity consumption during construction would be temporary, and would vary depending on the phase of construction. Overall, the construction of Project 5 would require limited electrical consumption that the existing electrical grid has capacity to serve. Therefore, Project 5 would have a less than significant impact on energy utility system capacity during construction. **(DEIR at 4.14-25)**.

Project 5 would also require electricity for ongoing maintenance operations, lighting, security systems, and other various operational needs. During daylight hours, the electricity needs for Project 5 would be supplied by Project 5's electricity generation. During non-daylight hours, the electricity needs for Project 5 would be provided by either backfeed from the electrical grid, through the proposed gen-tie, or through the existing SCE lines located on the west and south sides of the Project 5 site. Therefore, Project 5 would have a less than significant impact on energy utility system capacity. **(DEIR at 4.14-26)**.

Construction of Project 5 would require minimal ground disturbance during the facility installation. Solid waste generated from construction of Project 5 (and gentie lines) may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty non-hazardous containers, and vegetation wastes. In accordance with Title 22 Chapter 22.52, 65 percent of construction and demolition debris would be recycled. Any material that cannot be recycled would be properly disposed of at a regional disposal facility. Any defective or broken solar modules would be returned to the manufacturer for recycling. In

accordance with Title 22 Chapter 20.87, the Applicant would prepare a Recycling and Reuse Plan and progress reports to implement and document the Project's recycling practices. Therefore, Project 5 impacts on landfill and solid waste disposal capacity would be less than significant. **(DEIR at 4.14-26)**. Once the SGF is installed, there would be minimal waste generated during Project 5 operations; therefore Project 5 will have a less than significant impact on landfill and solid waste disposal capacity during operations. **(DEIR at 4.14-27)**.

Non-hazardous waste generated during construction, operation, and decommissioning of Project 5 (and gen-tie lines) would be transferred by licensed waste hauling contractors and recycled or disposed of in compliance with local and state regulations. Hazardous wastes would be shipped offsite and treated or disposed in accordance with all applicable laws and regulations for hazardous waste management. The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 5. Project 5 would have no impact relative to compliance with existing federal or state regulations pertaining to solid waste, because Project 5 would be required to comply with all relevant regulations during construction, operation and decommissioning. **(DEIR at 4.14-27)**.

SECTION 3.0 FINDINGS REGARDING CUMULATIVE ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

Pursuant to Section 15130 of the CEQA Guidelines, the following findings and statements of fact identify potentially significant cumulative impacts and Project 5's incremental contribution to the impacts discussed in the Final EIR, in the context of the other five Projects and other cumulative projects. For the following environmental resource areas, Project 5's incremental effect is not cumulatively considerable, and no cumulatively significant impact will occur.

3.1 AESTHETICS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Aesthetics.

Finding:

Changes or alterations have been required in, or incorporated into Project 5, which mitigate or avoid significant environmental effects. Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Aesthetics.

Facts Supporting the Finding:

Individually, with mitigation, each of the six proposed SGF Projects can each be expected to have a less than significant impact on aesthetic resources. The Project sites comprise 987.1 acres,

or 0.6 percent of the total area within the 5 mile radius. Within the 5-mile radius area, there are 20,909 acres of development listed by individual projects, as shown in DEIR Table 3-7. These development projects, including the Applicant's Projects, comprise 12.6 percent of the area identified in DEIR Figure 3-5 and include solar projects, commercial projects, and residential projects.

From elevated viewpoints, the western Antelope Valley appears as a mosaic of agricultural lands, suburban developments, and open land. From a distance, the proposed SGFs would not appear dissimilar to agricultural fields or existing PV facilities in shape and size. The other solar and real estate developments proposed for the western Antelope Valley would not appear dissimilar to existing land use patterns. From level viewpoints, such as those along local roads, solar or residential/commercial developments would not be prominent unless the observer is directly adjacent to the facility. Because of the flat nature of the Antelope Valley landscape, developments would quickly become less prominent as the viewer travels away from them. In addition, the scenic character on the valley floor is generally low. Existing commercial, residential, and energy developments (including substations, high-voltage transmission lines, distribution lines, and generation facilities) are scattered throughout the valley.

A 12.6 percent level of increase in development within 5 miles of each of the Project sites is not anticipated to be significant from elevated or level viewpoints, because the proposed developments would appear similar to existing developments in the Antelope Valley, and cover only a very small portion of the land within 5 miles of each proposed Project site. Views of open desert lands would still exist, and the flatness of the landscape would limit the prominence of new developments with increasing distance.

The proposed Projects and other proposed projects within the cumulative impacts study area would be individually required to comply with the Los Angeles County General Plan goals and policies, and the Antelope Valley Area Plan policies, as well as applicable ordinances such as the Los Angeles County Rural Outdoor Lighting District Ordinance, as they are applicable to aesthetic resources, as identified in Section 4.1.3 of the DEIR. Any cumulative aesthetic impacts would be reduced to a level that is less than significant with mitigation by application of these regulations, and mitigation measures A-1 to A-5. **(DEIR at 4.1-114 to 4.1-115)**.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Cumulative impacts to Agriculture and Forestry Resources could occur in the event that Project 5, in conjunction with the six proposed SGF Projects and other cumulative projects results in the area results in a cumulatively significant loss of Important Farmlands or Williamson Act contracted lands.

Finding:

Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable law ordinances regulations and standards.

Projects 1 – 6 are located in a region with significant agricultural uses. However, the Antelope Valley has been historically and is currently limited by water costs and climate conditions. Cumulatively, the Projects would not develop land classified as Prime Farmland or Farmland of Statewide Importance. Project 4 is the only site that currently contains land designated as Prime Farmland and of Statewide Importance. As mentioned above, the DOC is in process of reclassifying Project 4 land currently mapped as Prime Farmland and Farmland of Statewide Importance to Grazing Land on the 2012 edition of the Important Farmland Map for Los Angeles County. The Projects would not be expected to contribute to the overall trend of conversion of agricultural lands to other uses in the Antelope Valley when considered together with other potential cumulative projects in the area. That said, it is contemplated that at the end of the anticipated 35-year life of Projects 1-6, the associated properties could be returned to agricultural use. The Projects' incremental contribution to cumulative agricultural impacts is considered less than significant. **(DEIR at 4.2-9)**.

3.3 AIR QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Air Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 5, which mitigate or avoid significant environmental effects to Air Quality. Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Air Quality.

Facts Supporting the Finding:

Twenty-nine related projects have been identified within the proposed Projects' vicinity; locations are listed in DEIR Figure 4.3-2, "Cumulative Projects in the Region". Of these 29 related projects, there are a number of related projects that have not yet been built or are currently under construction. Since the Applicant has no control over the timing or sequencing of the related projects, and the level of emissions that would be generated by the related projects is uncertain, it is infeasible and speculative to prepare a quantitative analysis to ascertain daily

construction emissions that would occur under a worst-case scenario of all 29 related projects being constructed concurrently with the Applicant's six Projects.

For this reason, the AVAQMD was consulted to assess the cumulative impact resulting only from the Applicant's six Projects. The County's EIR consultant (Tetra Tech) met with AVAQMD officials and technical staff at the AVAQMD's office on May 29, 2012, and discussed the proper cumulative Air Quality analysis methodology for the Project pursuant to CEQA. **(DEIR at 4.3-48)**. AVAQMD determined that cumulative impacts from the Applicant's six Projects should be cumulatively quantified based on size, construction equipment per phase, and construction phase duration, and that the related projects should only be qualitatively discussed within the EIR. The cumulative Air Quality analysis was performed based on the direction from AVAQMD, and included the analysis of concurrent construction and operation emissions sources on any one maximum construction day, air dispersion modeling method, and risk assessment method. **(DEIR at 4.3-48)**.

As previously discussed in the analyses above (DEIR Table 4.3-13, "Peak Annual Construction Emissions"; DEIR Table 4.3-20, "Peak Annual Operation Emissions"; and DEIR Table 4.3-22, "Concurrent Health Risk Assessment"), emissions from overlapping construction phases of the Applicant's six projects would not exceed the AVAQMD thresholds on any maximum day or year during construction or operations. **(DEIR 4.3-30; 4.3-49)**.

With respect to the Project's construction-period air quality emissions and cumulative Basin-wide conditions, the AVAQMD has developed strategies to reduce criteria pollutant emissions outlined in the Air Quality Management Plan ("AQMP") pursuant to CAA mandates. As such, Project 5 would comply with AVAQMD Rule 403 requirements, and implement all feasible mitigation measures. In addition, Project 5 would comply with adopted AQMP emissions control measures. Per AVAQMD rules and mandates and the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects Basin-wide, which would include each of the related projects mentioned below. **(DEIR 4.3-49)**.

By applying AVAQMD's cumulative air quality impact methodology, implementation of Projects 1 – 6 would not result in an addition of pollutants, such that considerable cumulative impacts in conjunction with related projects in the region would occur. Therefore, the emissions of nonattainment pollutants and precursors generated cumulatively by Projects 1 – 6 would be less than significant. Projects are deemed inconsistent with air quality plans when they result in population and/or employment growth that exceeds growth estimates in the applicable air quality plan. The SGF sites would not conflict with or obstruct implementation of the applicable air quality plan, which in this case is the Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area). The Ozone Attainment Plan relies upon future year emission inventories consistent with California Air Resource Board ("CARB") and the adopted General Plan growth projections. As the proposed Projects are not part of an ongoing regulatory program, the AVAQMD recommends Project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed above, peak daily emissions of operation-related pollutants would not exceed AVAQMD significance thresholds.

The combined Projects' emission estimates state that while Projects 1 – 6 would generate air emissions during construction and a minimal amount of GHG emissions during operations, the Projects' incremental contribution, with mitigation, to cumulative air quality impacts do not exceed any air quality significance thresholds and would comply with the applicable AVAQMD AQMP. It should be noted that solar energy provided by the Projects is a much cleaner source of energy than traditional sources used for the generation of electricity, such as the burning of coal, fuel oil, or natural gas. Furthermore, since the percentage of GHG emissions generated by Projects 1 – 6 is so small; Projects 1 – 6 would provide a *de minimis* contribution to significant cumulative impacts caused by other projects in the region (as further discussed in DEIR Section 4.7, Climate Change and Greenhouse Gas). The Projects' emissions of non-attainment pollutants and precursors generated during operations with mitigation would not exceed the AVAQMD Project-level thresholds and are less than significant. As a result, Project-level emissions would not result in a cumulatively considerable contribution, such that results in an increase in air pollutant emissions above those assumed in the regional AQMP. **(DEIR at 4.3-52)**.

3.4 BIOLOGICAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Biological Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 5, which mitigate or avoid significant environmental effects to Biological Resources. Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Biological Resources.

Facts Supporting the Finding:

The total area included in the map in DEIR Figure 3-17 showing a 5.0 mile radius outward from each of the Project 1 – 6 solar sites comprises 165,349 acres. Solar development in the area is 8,086 acres (4.9 percent of the 165,349 acres shown in DEIR Figure 3-17). The Silverado Projects cover 987 acres (only 0.6 percent of the total area). Open space and wildlife mitigation lands would be acquired and preserved in perpetuity for Projects 1 – 6. Since the mitigation lands are intended to comprise higher quality wildlife habitat than those impacted by the Projects, impacts will be mitigated. The permanent nature of the land mitigation and preservation program to be implemented would assure that these new wildlife habitat mitigation lands would always be maintained and enhanced for wildlife values. Therefore, cumulative impacts from the Project would be less than significant. **(DEIR at 4.4-71)**.

3.5 CULTURAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Cultural Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 5, which mitigate or avoid significant environmental effects to Cultural Resources. Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Cultural Resources.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. As described above under impacts specific to Project 5, impacts related to cultural resources would be mitigated to less than significant levels, since the CRHR eligible resources in the area would be avoided. Because impacts to cultural resources would be mitigated to less than significant through avoidance, Projects 1 – 6 would not result in an incremental increase in effects on cultural resources when combined with the other 29 projects. Therefore, no significant cumulative impacts would be expected to occur. **(DEIR at 4.5-35)**.

3.6 GEOLOGY AND SOILS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Geology and Soils.

Finding:

Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). For the purposes of this

cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time.

It is assumed that construction of all of the cumulative projects would comply with all applicable laws, ordinances, regulations and standards, and that geotechnical studies would be performed to assess and mitigate any geotechnical hazards associated with them; therefore, the cumulative projects would not expose people or structures to potential substantial adverse effects. It is also assumed that the cumulative projects would comply with all applicable erosion control and stormwater management laws, ordinances, regulations and standards, therefore the construction of the cumulative projects would not contribute to cumulative soil erosion or loss of topsoil.

Proposed Projects 1 – 6 would not expose the public to adverse effects from strong seismic ground shaking because the Projects would be contained within a secure fenced area at each location and not open to the public. The potential for injury to workers is also quite low as they will not be on-site the majority of the time, and the likelihood that a seismic event would occur when workers are present is quite small. The Projects would also not result in significant soil erosion because the design and construction of the Projects' facilities would comply with all applicable building codes and standards established by regulatory agencies, including Los Angeles County Department of Public Works and the CBC. The proposed Projects 1 – 6 would therefore not contribute incrementally to cumulative impacts resulting from other development within the 5-mile radius. **(DEIR at 4.6-27)**.

3.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Greenhouse Gas Emissions and Climate Change.

Finding:

Changes or alterations have been required in, or incorporated into Project 5, which mitigate or avoid significant environmental effects to Greenhouse Gas Emissions and Climate Change. Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

As defined in CEQA Guidelines Section 15355, a "cumulative impact" is an environmental effect that may result from the combination of two or more environmental effects associated with a proposed project, or from the combination of one or more project environmental effects with related environmental effects caused by other closely related projects. However, in the case of global climate change, the proximity of the Projects to other GHG-generating activities is not directly relevant to the determination of a cumulative impact. Although AB 32 sets statewide targets for future GHG emissions, the scoping plan and other implementing tools of the law are

clear that the reductions are not expected to occur uniformly from all sources or sectors. The conclusions related specifically to Project 5, above, highlights the manner by which the proposed Projects intend to meet many of these strategies.

Numerous options exist for project developers to reduce their contribution to city-, county-, and state-wide GHG emissions, while helping to meet the region's future housing, jobs, and infrastructure needs. However, it is not possible at this time to accurately quantify GHG emissions expected from the related Projects or the GHG reductions anticipated from the above-listed strategies. There is no certain basis for concluding that an emissions increase resulting from the Projects and the related Projects could cause a measurable increase in global GHG emissions sufficient to force global climate change due to the complex physical, chemical and atmospheric mechanisms involved in global climate change.

In addition, the emissions models used for Project-level evaluations do not fully reflect improvements in technology and other reductions in GHG emissions that are likely to occur pursuant to state regulations, such as AB 1493, SB 1368, AB 32, and Executive Order S-3-5, as well as future federal and/or state regulations. Therefore, it is not possible or meaningful to calculate emissions from each of the identified related Projects and compare that with a numeric threshold or reduction target. Projects 1-6 would be consistent with the state's goals in helping the state meet the RPS (DEIR Table 4.7-17), resulting in a GHG emission profile that is below established thresholds, and include implementation of Mitigation Measures GHG-1 to GHG-5. Therefore, the Projects do not contribute considerably to cumulatively significant global climate change impacts. **(DEIR at 4.7-31)**.

3.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Hazards and Hazardous Materials.

Finding:

Changes or alterations have been required in, or incorporated into Project 5, which mitigate or avoid significant environmental effects to Hazards and Hazardous Materials. Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Hazards and Hazardous Materials.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all laws, ordinances, regulations and standards. It is assumed that for each of the cumulative

projects, Hazardous Materials Management Plans and Hazardous Waste Management Plans would be implemented, a SWPPP would be prepared, and all applicable environmental due diligence would be conducted (i.e., a Phase I ESA). If any of the cumulative projects are within an airport land use plan or airport influence area, the projects would obtain the appropriate authorizations and permitting from the respective Airport Land Use Commission. The cumulative projects would have a less than significant impact with mitigation to hazards and hazardous materials.

Based on the land uses in the surrounding areas (primarily agricultural) and the limited amount and type of hazardous materials to be used as part of the proposed Projects 1 – 6, no significant incremental cumulative impacts associated with environmental safety are expected to occur as a result of the construction and operation of the proposed Projects 1 – 6. Regulations implemented by the Department of Toxic Substance Control ("DTSC"), LACSD, LACFD, and Cal/OSHA would require similar measures be applied to other developments in the region. Therefore, Projects 1 – 6 are not expected to result in significant incremental cumulative impacts related to hazards and hazardous materials. **(DEIR at 4.8-19 to 4.8-20)**.

3.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Hydrology and Water Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 5, which mitigate or avoid significant environmental effects to Hydrology and Water Quality. Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Hydrology and Water Quality.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Project sites, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-3). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws ordinances regulations and standards. Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. As shown in DEIR Table 3-7 and DEIR Figure 3-17, the proposed Projects would entail approximately 0.60 percent of all proposed projects within a 5-mile radius.

All cumulative projects that may be approved and implemented would also assess potential impacts related to hydrology and water quality. The proposed Projects 1 – 6 were found to have less than significant impacts related to erosion, flooding, debris deposition, and stormwater quality, with no off-site impacts. Additionally, the proposed Projects would not result in any significant or unavoidable impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5-mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative impacts associated with other projects in the Projects' region. **(DEIR at 4.9-45)**.

3.10 LAND USE AND PLANNING

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Land Use and Planning.

Finding:

Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6. The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations, and standards. **(DEIR at 4.10-43)**.

Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. Similar potential impacts can result from these projects as from the Projects with respect to consistency with the subject general plan land use plans and policies, impacts to compatibility with surrounding land uses, and regulatory compliance with zoning ordinances. All cumulative projects that may be approved and implemented would also assess potential impacts related to land use and planning. The proposed Projects were found to have less than significant impacts related to compliance with County zoning, consistency with the County General Plan Land Use Plan intent and applicable land use conformance criteria, dividing an existing community, and with no significant impacts to the adjacent City of Lancaster. Additionally, the proposed Projects would not result in any significant or unavoidable land use impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5 mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative land use related impacts associated with other projects in the region. **(DEIR at 4.10-44)**.

3.11 NOISE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative Noise impacts.

Finding:

Changes or alterations have been required in, or incorporated into Project 5, which mitigate or avoid significant Noise impacts. Project 5, in conjunction with other development projects, will not result in a cumulatively significant Noise impact.

Facts Supporting the Finding:

Two non-Applicant projects identified have the potential to result in cumulative construction noise impacts, due to the projects being located in relatively close proximity to the proposed Projects, but not close enough to result in vibration impacts. The Western Antelope Dry Ranch project (CUP 11-07) is located approximately 1-mile north of Project 2, and the High Desert LLC (CUP 10-03) project is located approximately 1-mile north of Project 4. These distances are close enough that construction noise could propagate out to distances near the Applicant's Projects, but are not close enough to potentially result in vibration impacts. The time period of construction for these two projects is unknown, but if construction were to overlap with construction of the proposed Projects, there is the potential for increased temporary noise levels at residences; however, none of the noise sensitive receptors that are located in close proximity to Project 4 are also located in close proximity to Antelope Solar 1 or Antelope Solar Farm projects. Therefore, sound levels from construction of the Projects would only be minimally increased (less than 1-2 dBA), or not at all, by simultaneous construction. Therefore, overall cumulative impacts of the proposed Projects 1 – 6 would be less than significant with implementation of Mitigation Measures N-1 to N-9. **(DEIR at 4.11-56)**.

3.12 PUBLIC SERVICES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Public Services.

Finding:

Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Public Services. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. It is assumed that for each of the cumulative projects, worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts would be implemented. **(DEIR at 4.12-16)**.

Projects 1 – 6 would not cause effects to result in significant demands to fire response times. Projects 1 – 6 would be designed with appropriate fire protection considerations, and would also result in less than significant impacts to staffing and response times. Furthermore, Projects 1 – 6 would be required to provide taxes to the County that are designed to address cumulative fire department needs associated with new and existing developments. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes and fees to the County to provide for their potential increase to LACFD fire protection service demands (LACFD 2009). Additionally, all development in the area is subject to review and approval by the Fire Department. This ensures that all projects contain appropriate controls to reduce demand on the fire department. As a result, Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative fire protection impacts. **(DEIR at 4.12-17)**.

Projects 1 – 6 would not cause effects to result in significant demands to sheriff staffing or response times. Projects 1 – 6 would also implement site security control, including 24-hour remotely monitored video cameras for security monitoring to prevent potential theft and vandalism activities. Additionally, a portion of Projects 1 – 6 taxes levied would be allocated to sheriff services. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes that would be allocated to sheriff services. As a result, construction and operation of Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative sheriff protection impacts. Therefore, cumulative impacts associated with sheriff services would be less than significant. **(DEIR at 4.12-17)**.

Because development of Projects 1-6 will not induce population growth, no direct or cumulative impacts to schools, parks, libraries or other public facilities will occur. **(DEIR at 4.12-15; 4.12-16)**.

3.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Transportation and Traffic.

Finding:

Changes or alterations have been required in, or incorporated into Project 5, which mitigate or avoid significant impacts to Transportation and Traffic. Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Transportation and Traffic.

Facts Supporting the Finding:

Cumulative impacts for transportation and traffic are the combined effect of Projects 1 – 6 with the impacts of other past, present, and reasonably foreseeable future projects (other projects). This Cumulative Impacts discussion addresses the cumulative impacts of the Applicant's Projects 1 – 6 and the other projects within a geographic radius of 5-mile radius of the Projects (Project Study Area), which could potentially coincide with the expected construction schedule of the Applicant's Projects. Based on evaluation of the Project Study Area and available data from Los Angeles County, there are 29 other projects that have the potential to contribute additional traffic volume within the vicinity of Projects 1-6.

Evaluation of the cumulative impacts within the Project Study Area was focused on the construction-phase traffic for Projects 1-6 and other projects within a 5-mile radius. As previously stated in the individual conclusions for Project 5 above, the operational phase for each Project is anticipated to only generate a maximum of 4 vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a maximum of 12 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis contained in the DEIR, the operational phase vehicle trips/traffic for the Projects are considered negligible and would not result in a significant cumulative impact on the traffic and/or transportation infrastructure in the Project Study Area. **(DEIR at 4.13-41 to 4.13-43)**.

3.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 5), have the potential to result in cumulative impacts to Utilities and Service Systems.

Finding:

Project 5, in conjunction with other development projects, will not result in a cumulatively significant impact to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same

time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, and regulations. Construction and operation of the cumulative projects would result in less than significant impacts to public facilities, which include electricity, gas, wastewater, and solid waste services. During construction, all cumulative projects would follow required measures to prevent construction interference to utility services, and would comply with recycling requirements to minimize solid waste disposal at solid waste facilities. During operation, the solar and wind generation projects would provide electricity, and would generate minimal amounts of solid waste. During operation, the non-solar/non-wind commercial and residential development projects would generate solid waste as would be expected from these residential and commercial uses; it is assumed that these project proponents have planned for and mitigated for the additional solid waste generation as appropriate.

The proposed Projects 1 – 6 would provide their own electricity for operational needs, no natural gas would be required for their operations, little wastewater (from panel washing) would be generated as part of the operations process, and very little solid waste would be generated. As a result, the total cumulative impacts to utility services would be less than significant, and the incremental contribution of Projects 1 – 6 to cumulative impacts related to utility services would be less than significant. Furthermore, because the Applicant has committed to using out of Basin water during construction and operations, Projects 1 – 6 would not result in a cumulatively considerable contribution to water supply impacts in the Basin, and would have no significant cumulative effect on water supply. **(DEIR at 4.14-28)**.

SECTION 4.0 FINDINGS REGARDING PROJECT ALTERNATIVES

These Findings and Statements of Fact regarding project alternatives and certain mitigation measures identified in the Final EIR are set forth to comply with Section 21002 of the Public Resources Code and Sections 15091(a)(3) and 15126.6 of the CEQA Guidelines. Five alternatives to the proposed Project (consisting of Projects 1-6) described in the Draft EIR were analyzed and considered as follows: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites Alternative; 4) Rooftop Solar Generation Alternative; and 5) Wind Energy Generation Alternative. These alternatives constitute a reasonable range of alternatives necessary to permit a reasoned choice. For the reasons set forth below, Alternatives 1-5 are rejected as infeasible for the specific economic, legal, social, technological, or other considerations set forth below.

4.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

Description:

Under the No Project Alternative, Project sites 1-6 would remain in their present condition with site conditions (i.e., fallow agricultural land) as they currently exist.

Finding:

The No Project Alternative is rejected as infeasible because it fails to meet the Project goals and objectives, and would not contribute to the State’s ability to meet its near- and long-term renewable energy generation goals and objectives.

Facts Supporting the Finding:

The proposed Projects 1 – 6 would not be approved or implemented under the No Project Alternative. The potential environmental impacts and benefits of the proposed Projects would not occur as a direct consequence of implementation under the No Project Alternative. The No Project Alternative would involve taking no action to generate 172 MW of clean, renewable electrical power utilizing solar PV technology and to integrate the electrical output of the Projects into the electrical grid. This alternative would not allow one of the primary purposes of the proposed Projects which is to increase the output of renewable energy in support of the RPS, such that the State of California may meet its current and planned goals for increasing renewable generation at reasonable market rates.

The No Project Alternative assumes that the sites will remain as they currently exist (primarily fallow agricultural land) and no environmental impacts would result. In summary, the No Project Alternative is provided for comparative purposes to the proposed Projects 1 – 6. This alternative is incapable of meeting the stated goals and objectives of the Projects to provide 172 MW of renewable electric energy to utility providers, and does not contribute to the state's ability to meet its near-term and long-term renewable energy generation goals and objectives. **(DEIR 5-1 to 5-2)**.

4.2 ALTERNATIVE 2: LOWER INTENSITY PROJECTS

Description:

Under the Lower Intensity Projects Alternative, fewer than six sites would be developed, and the smaller projects would be developed in a size and configuration that would result in generation of fewer than 172 MW of electricity.

Finding:

The Lower Intensity Projects Alternative is rejected as infeasible because it partially fails to accomplish the goals of the proposed Projects, which are to provide 172 MW of clean, renewable electric energy using solar PV technology, and to deliver the electric output on a wholesale basis to utility providers.

Facts Supporting the Finding:

Projects 1-6 are designed to meet the increasing demand for clean, renewable electrical power. Any reduction in the size of the effort results in a similar potential reduction in the reliance on foreign sources of fuel, the diversification of energy portfolios, the contribution to the reduction of GHG emissions, and the generation of "green" jobs. It would also potentially reduce the contribution to the much needed on-peak power to the electrical grid in California.

The opportunity to develop solar power in Los Angeles County has a limited timeframe because the utility companies, which purchase the power, would purchase power from another entity if the proposed Projects are not completed in a timely manner. If Los Angeles County does not

approve the six viable SGFs proposed here, the opportunity to contribute to the competitive solar generation business in the County will be further lost to other projects. The proposed Projects are well-positioned to compete in the industry, are comparatively environmentally superior to most other locations, and have good positions for PPAs and interconnection agreements. Additionally, any reduction of the megawatts produced from these Projects would further limit the County's contribution to the State's renewable energy production goals. These 5 to 52 MW Projects meet the utility industry needs for small projects, and any reduction of the respective Projects' size would jeopardize the success of the Projects. **(DEIR at 5-2)**.

4.3 ALTERNATIVE 3: SELECT OTHER PROJECT SITES ALTERNATIVE

Description:

Under the Select Other Project Sites Alternative, other properties could potentially be used for the six Project sites.

Finding:

The Select Other Project Sites Alternative is rejected, because this alternative would have the same or greater impacts to the environment as Projects 1-6, which can all be mitigated to below a level of significance.

Facts Supporting the Finding:

One key objective for the Project Applicant was to locate the Projects in an area with the following characteristics: (1) adequate solar radiation; (2) close proximity to interconnection locations for each solar site; (3) project sites with landowners who are willing to sell large enough parcels of land for solar generation at market price; (4) lack of threatened and/or endangered biological species on the site; (5) lack of nearby sensitive receptors or land uses to minimize potential conflicts with development (6) relatively flat sites that have previously been disturbed to minimize disturbance to native habitat and to minimize the need for site grading; (7) existing access to accommodate construction workforce needs; and (8) access to nearby workforce to minimize traffic and socioeconomic impacts. The Applicant performed in-depth analyses of over 10,000 acres of land in the Western Antelope Valley, as shown in DEIR Figure 6-1. Of the 10,000 acres screened, only ten percent met the criteria listed above.

The six Project sites selected and proposed by the Applicant are the most viable sites to develop solar electricity generation with minimal environmental impacts. These sites were also chosen for development based on interconnection capacity and requirements placed on the Applicant by the utility providers. Selection of other alternative sites would have the same or greater impacts to the environment since the present Projects are the result of a long and intense effort by the Applicant to find and acquire the most suitable sites according to the criteria given above. **(DEIR at 1-6; 5-3)**. Furthermore, the environmental impacts for Projects 1-6 can all be mitigated to below a level of significance.

4.4 ALTERNATIVE 4: ROOFTOP SOLAR GENERATION

Description:

Under the Rooftop Solar Generation Alternative, solar photovoltaic panels would be installed on private rooftops.

Finding:

The Rooftop Solar Generation Alternative is rejected as infeasible, because the Project Applicant does not have the ability to install solar panels on private rooftops.

Facts Supporting the Finding:

For rooftop solar to be a viable alternative to the proposed Projects it would need to provide 172 MW of electricity into the local grid. Assuming one residential installation can produce 25 kilowatts of electricity, a total of 6,880 residential installations would be needed to produce 172 MW of electricity. The Applicant does not have the ability to install solar panels on private rooftops; therefore this alternative is not feasible for the Applicant. **(DEIR at 5-3)**.

4.5 ALTERNATIVE 5: WIND ENERGY GENERATION

Description:

Under the Wind Energy Generation Alternative, electricity would be generated through the use of wind turbines.

Finding:

The Wind Energy Generation Alternative is rejected as infeasible, because the type of geographical location that is suitable for a wind farm is not available within the vicinity.

Facts Supporting the Finding:

For wind energy generation to be a reasonable alternative to the proposed Projects and meet the purpose and need of the proposed Projects, it would need to provide 172 MW of electricity into the local grid; and to be sited on previously disturbed land that utilizes existing electrical distribution facilities, ROWs, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities. The area required for construction and operation of a 172 MW wind farm would require a much more specific type of geographical location than the Projects to provide adequate wind; a feasible project area of the nature required for wind electricity production is not readily available within the area of analysis for the proposed Projects. For this reason, this alternative is infeasible. **(DEIR at 5-3)**.

SECTION 5.0 FINDINDS REGARDING THE MITIGATION MONITORING AND REPORTING PROGRAM ("MMRP")

Pursuant to Section 21081.6 of the Public Resources Code, the Commission, in adopting these Findings, also adopts the MMRP for the Silverado Power West Los Angeles Project. This Program is designed to ensure that, during Project implementation, the County and other responsible parties will comply with the mitigation measures adopted in these Findings.

The Commission hereby finds that the MMRP, which is incorporated herein by reference and attached as Exhibit A to these Findings, meets the requirements of Public Resources Code Section 21081.6 by providing for the implementation and monitoring of Project conditions intended to mitigate potential environmental effects of the Project.

SECTION 6.0 CEQA GUIDELINES SECTION 15091 AND 15092 FINDINGS

Based on the foregoing findings and the information contained in the administrative record, the Commission has made one or more of the following findings with respect to each of the significant effects of the Project:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Based on the foregoing findings and the information contained in the administrative record, and as conditioned by the foregoing:

A. All significant effects on the environment due to the Project have been eliminated or substantially lessened where feasible.

SECTION 7.0 CEQA GUIDELINES SECTION 15084(D)(3) AND 15084(D)(4) FINDINGS

The County has relied on Sections 15084(d)(3) of the State CEQA guidelines, which allow acceptance of working drafts prepared by the Applicant, a consultant retained by the Applicant, or any other person. The County has also relied upon Section 15084(d)(4), which allows the Draft EIR to be prepared directly by, or under contract by the lead agency. The County has reviewed and edited as necessary the submitted drafts to reflect the County's own independent judgment, including reliance on County technical personnel from other departments.

SECTION 8.0 PUBLIC RESOURCES CODE SECTION 21082.1(C) FINDINGS

Pursuant to Public Resources Code Section 21082.1(c), the Commission hereby finds that the lead agency has independently reviewed and analyzed the Final EIR, and that the Final EIR reflects the independent judgment of the lead agency.

SECTION 9.0 NATURE OF FINDINGS

Any finding made by this Commission shall be deemed made, regardless of where it appears in this document. All of the language included in this document constitutes findings by this Commission, whether or not any particular sentence or clause includes a statement to that effect. This Commission intends that these Findings be considered as an integrated whole and, whether or not any part of these Findings fail to cross reference or incorporate by reference any other part of these findings, that any finding required or committed to be made by this Commission with respect to any particular subject matter of the Final EIR, shall be deemed to be made if it appears in any portion of these Findings.

SECTION 10.0 RELIANCE ON RECORD

Each and all of the findings and determinations contained herein are based on the competent and substantial evidence, both oral and written, contained in the entire administrative record relating to the Silverado Power West Los Angeles County Project. The findings and determinations constitute the independent findings and determinations of this Commission in all respects, and are fully and completely supported by substantial evidence in the record as a whole.

SECTION 11.0 RELATIONSHIP OF FINDINGS TO EIR

The County finds and declares that substantial evidence for each and every finding made herein is contained in the EIR or is in the record of proceedings in the matter.

SECTION 12.0 CUSTODIAN OF RECORDS

The custodian of the documents or other material which constitute the record of proceedings upon which the County's decision is based is the Los Angeles County Department of Regional Planning located at 320 West Temple Street, Los Angeles, California 90012.

EXHIBIT A
MITIGATION MONITORING AND REPORTING PROGRAM
("MMRP")

CEQA requires a Mitigation Monitoring and Reporting Program (MMRP) for projects where mitigation measures are a condition of project approval and development. The Draft EIR prepared for the Silverado Power West, Los Angeles County Projects identified mitigation measures, where appropriate, to avoid or substantially reduce the environmental impacts associated with the Project. This MMRP is designed to monitor the implementation of those mitigation measures. Accordingly, this MMRP has been prepared in compliance with the requirements of CEQA Section 21081.6 and CEQA Guidelines Section 15097.

This section lists each of the proposed Project Design Features (PDFs) and required Mitigation Measures (MMs) and identifies the corresponding action required for proof of compliance, the mitigation timing, the party responsible for implementation, and the monitoring agency or party responsible for ensuring each measure is adequately implemented.

Mitigation Monitoring and Reporting Program
Silverado Power West, Los Angeles County Projects
Project Nos. R2011-00833, 00798, 00799, 00807, 00801, 00805
March 2014

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.1 AESTHETICS				
A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.	A. Submit Plan to AVAQMD for review and approval	Prior to any ground disturbance activities	Applicant/Construction Manager	LACDRP AVAQMD
	B. Maintain log demonstrating compliance. Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD
A-2 The Project site shall be maintained free of debris, trash, and waste during construction.	Site inspection	During construction	Applicant	LACDRP
A-3 The Project site shall be visually screened or partially screened during construction by fencing.	A. Submit Site Plans for review and approval	Prior to issuance of applicable building permit	Applicant	LACDRP
	B. Site inspection as needed	During construction	Applicant	LACDRP
A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.	A. Submit landscape plan for review and approval. The landscape plan must be approved prior to grading or building permit.	Prior to 1st grading or building permit whichever comes first for each project.	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
	B. Implement approved landscape plan	Prior to first energization approval by LADPW B & S	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on essential infrastructure rather than on separate light poles	Submit final lighting plan for review and approval	Prior to issuance of building permit(s)	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.				
5.2 AGRICULTURE AND FORESTRY				
No mitigation measures are required for Agriculture and Forestry.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.3 AIR QUALITY				
AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVQMD
AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of CVC Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Submit Transportation Demand Management program for review and approval	Prior to issuance of building permits	Applicant/Construction Manager	LACDRP LACDPW support and referral for trip reduction determination

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation, to the greatest extent feasible, approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager/Biologist	LACFD LACDRP
AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP AVAQMD
AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.4 BIOLOGICAL RESOURCES				
B-1 Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess	A. Retain qualified Biologist(s)	Prior to issuance of Grading Permit	Applicant/Construction Monitor	LACDRP CDFW
	B. Field Surveys	Prior to grading permit	Applicant	LACDRP CDFW
	C. Maintain daily monitoring reports	During Construction	Applicant/Construction Monitor	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to DRP and CDFW at their request.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-2 Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below. • Pre-survey information gathering will include reviewing of all available agency nest data and mapping. • A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted. • Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds. • A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to	Pre-construction surveys for special-status species that have been identified as having potential to occur on site	Prior to grading or as specified per species	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012). If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals. Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand excavated and collapsed under the supervision of the avian biologist. Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals. • Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.				
B-3 During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or	Biological Monitoring	During construction	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-4 Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily. <u>Swainson's hawk</u>: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity. The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats: Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows: • A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed Significant Ecological Area (SEA). • A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat; • A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat. <u>Burrowing Owl</u>: Mitigation for any occupied burrowing owl burrows found during pre-construction surveys will include a comprehensive tiered approach: • Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;	A. Acquire mitigation lands for Swainson's Hawk	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	B. Acquire mitigation lands for Burrowing Owl	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	C. Pre-construction survey for Alkali Mariposa Lilies	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	D. If necessary Acquire Alkali Mariposa Mitigation land	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
• Disturbance avoidance of occupied burrows during nesting period February 1 – August 31; • Impact avoidance of occupied burrows; • Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW). • Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback). • Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project. <u>Alkali Mariposa Lily</u>: Alkali mariposa lily will be avoided to the greatest extent possible. If pre-construction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable. For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-5 Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria: <u>Habitat Management Land Selection Criteria</u>: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired. Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred. <u>Habitat Management Lands Acquisition</u>: Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW. The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s)	A. Obtain approval of habitat management lands	Prior to Acquisition	Applicant	LACDRP CDFW
	B. Record a permanent deed restriction or conservation easement on mitigation land(s)	Within 45 days of acquiring land(s)	Applicant	LACDRP CDFW
	C. Establish fund in the amount acceptable to LACDRP and CDFW for restoration, enhancement, and maintenance of the mitigation lands	Within 90-days of mitigation land(s) acquisition	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
acquisition in an amount acceptable to the LACDRP and CDFW.				
Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the applicant shall provide a proposed date of purchase which coincides with construction of the facility.				
B-6 Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.	Enter into an agreement with CDFW pursuant to sections 1601 through 1603	Prior to alteration of Streambed	Applicant	CDFW
B-7 Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads as follows: Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.	Revegetation of interior site, excluding interior roads	After construction	Applicant	LACDRP
5.5 CULTURAL RESOURCES				
CUL-1 In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist, in consultation with the Native American Monirot shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources	A. Archaeological monitoring and Native American monitor when there is a find	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP NAHC
	B. Maintain log demonstrating compliance	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During earthmoving activities	Applicant/Construction Manager/Qualified	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.			Archaeologist	
CUL-2 In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.	A. Archaeological and Native American monitoring	During construction	Applicant/Construction Manager/Qualified Archaeologist/NAHC representative	LACDRP NAHC
	B. Maintain documentation demonstrating compliance	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-3 Project 4 construction of gen-tie lines shall maintain the right of way buffer zones prescribed by SCE for this historic electric transmission line resource, which is an active transmission line. This Mitigation Measure shall apply to Project 4 only.	Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-4 Project construction for Project 4 shall maintain a one acre undisturbed area surrounding the Del Sur Cemetery	A. Submit pre-construction surveys	Prior to construction	Applicant/Qualified Archaeologist	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
site. This Mitigation Measure shall apply to Project 4 only.	B. Construction monitoring by qualified Archaeologist	During construction	Applicant/Qualified Archaeologist	LACDRP
	C. Submit construction monitoring documentation	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
	D. Site inspection as needed	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
CUL-5 A County approved archaeologist will be retained to initiate and supervise cultural resource monitoring during Project related earthwork in areas of the Project that are within 50 feet from certain significant cultural resources, specifically from the defined perimeter of site CA-LAN-1579H (Project 4). If resources are identified, the procedures outlined in CUL-1 will be followed and/or CUL-2 (as necessary). This Mitigation Measure shall apply to Project 4 only.	A. Archaeological monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	B. Maintain log demonstrating compliance	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. A The paleontologist shall develop and execute a Paleontological Resource Mitigation and Monitoring Program and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment according to the Program.	Paleontological Monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Paleontologist	LACDRP LAC Natural History Museum support/referral
5.6 GEOLOGY AND SOILS				
No mitigation measures are required for Geology and Soils.	N/A	N/A	N/A	N/A
5.7 GREENHOUSE GAS EMISSIONS				
GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment	A. Submit operating permit(s) as required	Prior to commencement of construction	Applicant	AVAQMD LACDRP
	B. Maintain log	During construction	Applicant/Construction	AVAQMD

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	demonstrating compliance		Manager	LACDRP
GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-3 The off-road construction equipment drivers shall have proper training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-4 Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.	Site inspection as needed	During construction and grading	Applicant/Construction Manager	AVAQMD LACDRP
GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Maintain log demonstrating compliance	Prior to Building Permit	Applicant/Construction Manager	AVAQMD LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.8 HAZARDS/HAZARDOUS WASTES				
HH-1 Prior to the start of construction activities, a Hazardous Materials Management Plan shall be implemented for each project.	Submit Hazardous Materials Management Plan	Prior to start of construction	Applicant	DTSC
HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.	Submit Hazardous Waste Management Plan for each Project	Prior to start of construction	Applicant	DTSC
HH-3 Prior to the start of construction activities on the parcel containing the historic UST at the location of Project 1, a Phase I ESA will be completed. This mitigation measure only applies to Project 1.	Phase I ESA	Prior to issuance of grading permit(s)	Applicant	LACDRP
HH-4 Prior to the start of construction activities, a closure permit for the UST will be verified or obtained from the Los Angeles County Fire Department, Health Hazardous Materials Division. This mitigation measure only applies to Project 1.	Closure permit or verification for UST – Project 1 site	Prior to issuance of grading permit(s)	Applicant	LACFD
HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated	Testing of soil contamination	Prior to start of construction	Applicant	DTSC LACDRP
5.9 HYDROLOGY/WATER QUALITY				
Construction				
HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be	Maintain log demonstrating compliance of Educational materials and training for Property Owners, Tenants, Occupants, and Employee	During Construction	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
available at each project site and a log kept to show education has occurred prior to the start of construction.				
HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit spill contingency plan	Prior to grading permit	Applicant	LACDRP
HYDRO-3 No hazardous materials are anticipated to be stored on-site. If deemed otherwise, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Maintain log demonstrating compliance	During construction and operations	Applicant/Construction Manager	LACFD
HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance of the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit all applicable information	Prior to grading permit	Applicant	LACFD
Operation				
HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often if containers approach overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area/room is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.	A. Include waste collection and disposal methods in construction contract specifications	During operation	Applicant	LACSD LACDRP
	B. Maintain log demonstrating compliance	During operation	Applicant	LACSD LACDRP
5.10 LAND USE AND PLANNING				
No mitigation measures are required for Land Use and Planning	N/A	N/A	N/A	N/A
5.11 NOISE				
N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise	Maintain log of construction equipment arrivals and exit times demonstrating	During construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.	compliance			
N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
	B. Inclusion of requirement for a Noise Control Plan	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest NSR are predicted to be above the County construction noise limit of 60 dBA during the day.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
	B. Site inspection as needed	During Construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-8** Siting substations to achieve NEMA sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project: • Project 1 – 325 feet with a NEMA sound rating of 74 dBA • Project 2 – 1,511 feet with a NEMA sound rating of 81 dBA • Project 3 – 650 feet with a NEMA sound rating of 74 dBA • Project 4 (two transformers) – 1,000 feet with a NEMA sound rating of 77 dBA • Project 5 – 748 feet with a NEMA sound rating of 82 dBA	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-9** The Applicant shall choose to use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
5.12 PUBLIC SERVICES				
No mitigation measures are required for Public Services	N/A	N/A	N/A	N/A
5.13 TRANSPORTATION/TRAFFIC				
TT-1 Prior to issuance of first grading or building permit, Applicant shall document and submit all required information	Submit Projects' road survey	Prior to issuance of first grading or building	Applicant	LACDPW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.		permit		
TT-2 The County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-00798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.	Provide street closure notifications	Three days prior to any street closures impacting fire and/or paramedics	Applicant/Construction Manager	LACFD
TT-3 Stagger construction work shifts before or after peak traffic hours.	A. Maintain log demonstrating compliance	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
	B. Site inspection as needed	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
TT-4 Schedule truck deliveries during off peak hours.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-5 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-6 Encourage carpooling between construction works.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.14 UTILITIES				
No mitigation measures are required for Utilities.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
List of Acronyms: B & S – building and safety BMP – Best Management Practice CEQA – California Environmental Quality Act CASQA – California Association of Stormwater Quality Agencies CBC – California Building Code CDFW – California Department of Fish and Wildlife CUP – Conditional Use Permit CVC – California Vehicle Code dBA – decibels (acoustics) DPR – Department of Parks and Recreation ESA – Environmental Site Assessment hp – Horsepower LACDPW – Los Angeles County Department of Public Works LACFD – Los Angeles County Fire Department mph – miles per hour NEMA – National Electrical Manufacturers Association OSHA – Occupational Safety and Health Administration PRC – Public Resources Code ROW – Right of Way SCE – Southern California Edison SWPPP – Stormwater Pollution Prevention Plan UFC – Uniform Fire Code UST – Underground Storage Tank WATCH – Work Area Traffic Control Handbook LACDPH – Los Angeles County Department of Public Health LACSD – Los Angeles County Sanitation District				

FINDINGS OF FACT REGARDING THE ENVIRONMENTAL IMPACT REPORT

FOR THE SILVERADO POWER WEST LOS ANGELES COUNTY PROJECT

PROJECT SITE NO. 6 (Lancaster WAD)

COUNTY PROJECT NO. R2011-00805-(5)

CONDITIONAL USE PERMIT NO. 201100074

ENVIRONMENTAL ASSESSMENT NO. 201100109

STATE CLEARINGHOUSE NO. 2012061068

PROJECT FINDINGS ORGANIZATION

Section 1	Introduction
Section 2	Findings Regarding Potential Environmental Effects Which Are Not Significant or Which Have Been Mitigated to a Less than Significant Level
Section 3	Findings Regarding Cumulative Environmental Effects Which are Not Significant or Which Have Been Mitigated to a Less Than Significant Level
Section 4	Findings Regarding Project Alternatives
Section 5	Findings Regarding the Mitigation Monitoring and Reporting Program
Section 6	CEQA Guidelines Section 15091 and 15092 Findings
Section 7	CEQA Guidelines Section 15084(D)(3) and 15084(D)(4) Findings
Section 8	Public Resources Code Section 21082.1(C) Findings
Section 9	Nature of Findings
Section 10	Reliance on Record
Section 11	Relationship of Findings to EIR
Section 12	Custodian of Records
Exhibit A	Mitigation Monitoring and Reporting Program ("MMRP")

SECTION 1.0 INTRODUCTION

The County of Los Angeles ("County") Regional Planning Commission ("Commission") hereby certifies and finds that the Silverado Power West Los Angeles County ("Project") Final Environmental Impact Report ("Final EIR"), State Clearinghouse Number 2012061068, has been completed in compliance with the California Environmental Quality Act (Public Resources Code Sections 21000 et seq., "CEQA") and the State CEQA Guidelines (Title 14, Cal. Code Regs. Sections 15000 et seq., "CEQA Guidelines").

The Project Final EIR consists of the following documents: (1) December 2013 Draft Environmental Impact Report ("Draft EIR" or "DEIR"); (2) December 2013 Technical Appendices to the Draft EIR; and (3) March 2014 Final EIR.

The Commission hereby further certifies that it received, reviewed and considered the information contained in the following: (i) the Final EIR; (ii) the application for Conditional Use Permit No. 201100074; and (iii) all hearings, and submissions of testimony from County officials and departments, the Applicant (as defined herein), the public, other public agencies, community groups, and organizations.

Concurrently with the adoption of these findings, the Commission adopts a Mitigation Monitoring and Reporting Program ("MMRP"), attached hereto as Exhibit A. Having received, reviewed and considered the foregoing information, as well as any and all information in the administrative record and the record of proceedings, the Commission hereby makes the following Findings of Fact ("Findings") pursuant to and in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15090:

SECTION 1.1 PROJECT BACKGROUND

1.1.1 Project Location.

The Project site is located in the northern portion of unincorporated Los Angeles County. The EIR analyzed a total of six (6) individual Project sites (collectively, "Projects" or "Projects 1-6"), which will each be subject to separate review and approval by the County.[1]

These Findings specifically pertain to "Project 6", which is approximately 38.5 acres and located at 35th Street West and West Avenue D, in Lancaster, California. The Assessor's Parcel Number ("APN") for Project 6 is 3115-010-004. When complete, Project 6 would produce 5 megawatts ("MW") of electricity from solar photovoltaic modules.

[1] The six individual Projects are not dependent upon each other for success. Each Project can succeed as a stand-alone project if other projects are not approved by Los Angeles County or if technical or financial problems delay or block the completion of a Project. CEQA allows for a group of projects to be analyzed as a single EIR; each Project must also receive approval of its CUP application and other entitlements on the merits of the individual Project and individual site.

1.1.2 Project Description—Features Common to Projects 1 - 6.

There are certain general Project characteristics and features that will apply to each of the individual six Project sites, including Project 6, as follows:

All six of the Projects would be designed and built using the same or similar methods and would have similar Project characteristics. The Projects would utilize photovoltaic ("PV") technology on fixed-tilt or tracker mounting supports. The proposed PV Projects would be constructed in phases and operated for an estimated 35 years. Construction would generally take place during normal daylight hours and would conform to County construction requirements.

Each Project would consist of the following elements:

- PV modules;
- PV module mounting system;
- Balance of system and electrical boxes (e.g., combiner boxes, electrical disconnects);
- Substation (Projects 1 – 5 only);
- Electrical inverters and transformers;
- Electrical AC collection system, including switchgear;
- Data monitoring equipment;
- Generation tie line; and
- Access roads and chain link perimeter security fencing.

<u>Solar PV Generating Facilities</u>

The Solar Generating Facilities ("SGFs") are designed for optimum performance and ease of maintenance. The Projects would consist of a series of PV module arrays mounted on racking systems, which are typically supported by a pile-driven foundation design. The foundation design would be determined based on the full geotechnical survey. The module mounting system, or racking system, would have a fixed-tilt or tracker PV array configuration and would be oriented south to maximize the amount of incident solar radiation absorbed over the course of the year. Electricity from a series of PV arrays would be funneled and combined at combiner boxes located throughout the SGF. The electrical current would then be further collected and combined prior to feeding the inverters. The SGF would be laid out in a PV block design to allow adequate area for maintenance in the way of clearances or access roads.

Inverters would be consolidated in areas to minimize cable routing and trenching and ensure minimal electrical losses. The alternating current ("AC") from the inverters would be routed through an AC collection system and consolidated within system switchgear. The final output from the SGF would be processed through a transformer to match the interconnection voltage. Electrical safety and protection systems would be provided to meet utility, International Organization for Standardization, and regulatory codes and standards. The energy would be

delivered to the regional electrical distribution network. A security perimeter fence with appropriate signage for public protection would be installed. Points of ingress/egress would be accessed by locked gates for facility services and maintenance.

Photovoltaic Modules

The SGFs would require installation of PV modules. The total number of PV modules required would depend on the technology selected, optimization evaluation, and detailed design. The market conditions, economic considerations, and the environmental factors would be taken into account during the detail design process. The following PV module technologies or equivalent are being considered for incorporation into the Projects:

- PV thin-film technology
- PV crystalline silicon technology
- Fixed-tilt configuration; and
- Tracking design configuration.

The modules configured with a fixed tilt would be oriented toward the south and angled at a degree that would optimize solar resource efficiency. For the tracking configuration, the modules would rotate from east to west over the course of the day. Modules would be non-reflective and highly absorptive.

Standard Installation, Array Assembly, and Racking

The final racking system would be determined by optimization evaluations and economic assessments and incorporated into the detailed design. Likewise, the final foundation design would be determined based on the geotechnical survey for each of the PV Project locations. Once the foundation has been installed, the module mounting system would be installed on it. For a tracking configuration, motors would be installed to drive the tracking mechanism. The PV modules would be delivered to each site during construction to support the installation schedule. The module mounting system would be oriented in rows within a PV design block, presenting a standard and uniform appearance across the facility. The panel configuration would be uniform in height and width.

Collection, Inverters, AC Collection, and Transformers

Modules would be electrically connected into strings. Each string would be funneled by electrical conduit (typically underground) wiring to combiner boxes located throughout the solar field power blocks. The output power cables from the combiner boxes would be again consolidated and feed the direct current ("DC") electricity to inverters, which convert the DC to AC. Underground electrical cables would be installed using ordinary trenching techniques, which include excavation of trenches to accommodate conduits. Wire depth and trench backfill would be in accordance with local, state, and federal codes.

The AC energy would be stepped up to the appropriate interconnection voltage by system transformers to match the voltage at the grid interconnection. As required, switchgear cabinetry

would be provided where necessary for circuit control. All electrical inverters, transformers, and gear would be placed on concrete foundation structures.

Commissioning of equipment would include testing, calibration of equipment, and troubleshooting. All electrical equipment, inverters, collector system, and PV array systems would be tested prior to commencement of commercial operations.

Interconnection Descriptions

Each inverter would be fully enclosed and pad mounted and would be approximately 90 inches in height. The AC output of two inverters would be fed via underground cable into the low-voltage side of the inverter step-up transformer, generally within 20 feet of the inverters. Each transformer would be mounted on a concrete pad and enclosed together with switchgear and a junction box. Transformers are typically 87 inches in height. The high-voltage output of the transformer would be combined in series via underground collector cables to the junction box of the nearest transformer, ranging from as little as 60 feet to as much as 700 feet. The collector system cables would be tied throughout the SGF at underground junction boxes to the main underground collector cables, which would be composed of a larger wire gauge, to the location of the generator step-up transformer ("GSU"), as applicable at each Project location. The main collector cables would rise into the low-voltage busbar and protection equipment that would be enclosed together with the GSU. The primary switchgear includes the main circuit breaker and utility metering equipment, and it would be enclosed separately but pad-mounted together with the GSU. Both the GSU and the primary switchgear would stand approximately 87 inches in height.

The output of the switchgear would be the start of the Project generation tie ("gen-tie") line. The connections from the SGFs to the regional transmission lines are made through the construction of gen-tie lines. Los Angeles County requires that all gen-tie lines be underground except when other applicable regulations require otherwise, and Projects 1 − 6 are each designed in this manner. Each gen-tie line would consist of three phases of either underground or overhead conductor and a disconnect switch. The overhead conductor would be mounted on either wooden or tubular steel poles of varying heights ranging from 55 to 85 feet. Pole height would be determined by the span between poles as defined in the final design for each Project.

Data Collection Systems

Each Project would be designed with a comprehensive Supervisory Control and Data Acquisition ("SCADA") system for remote monitoring of facility operation and/or remote control of critical components. Within the site, the fiber optic or other cabling required for the monitoring system, would be installed with the gathering line system throughout the solar field leading to a centrally located (or series of appropriately located) SCADA system cabinets. The external telecommunications connections to the SCADA system cabinets may be through either wireless or hard-wired telecommunications to a centralized data collection center.

The system would also include a permanent meteorological data collection system. The station would have several weather sensors: a pyranometer for measuring solar irradiance, a

thermometer to measure air temperature, a barometric pressure sensor, and two wind sensors to measure speed and direction. These sensors would be connected to a data logger, which would compile the data for transmission to the data collection center.

Construction

Construction for each of the six Project facilities consists of three major phases: (1) site preparation, (2) PV system installation testing and startup, and (3) site cleanup/restoration. Best Management Practices ("BMPs") would be required during all construction phases of the Projects. A Storm Water Pollution Prevention Plan ("SWPPP") incorporating BMPs for erosion control would be prepared and approved before the start of construction. The Projects would also comply with applicable post-construction water quality standards adopted by the Regional Water Quality Control Board ("RWQCB").

PV System Installation

PV system installation includes earthwork, grading, and erosion control, as well as construction of the plant substation and erection of the PV modules, supports, and associated electrical equipment. System installation would begin with teams installing the steel/concrete piers support structures. The exact design would be finalized pending evaluation of soil conditions.

The proposed method of installation would be the use of vibration-driven pile foundations. This step would be followed by panel installation and electrical work. A very limited volume of concrete would be required for the substation footings, foundations, pads for the transformers, and other substation equipment. Silverado Power, LLC ("Applicant") does not propose to use excavated and poured footings or foundations for the PV arrays. Concrete would be produced at an off-site location by a local provider and transported to the Project sites by truck.

The enclosures housing the inverters have a pre-cast concrete base. Final concrete specifications would be determined during detailed design engineering consistent with applicable building codes. The primary site preparation method for the PV modules would be mowing, because the majority of the six sites are very flat with little change in topography. However, there may be a few instances where limited earthwork, including ponding area leveling of less than one foot in depth, and erosion control cultivation may be required to accommodate the placement of PV arrays. Other than required grading for roads, pads, and drainage features, and standard trenching and installation work, no other earthwork would be performed within the array areas. Erosion control techniques used during construction may include the use of silt fencing, straw bales, temporary catch basins, inlet filters, and truck tire muck shakers. Construction of the PV arrays includes the installation of support beams, module rail assemblies, PV modules, inverters, transformers, and buried electrical cables.

Wastes generated during construction may include the following: cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spools. The Applicant does not expect to generate hazardous waste during construction. However, field equipment used during construction would contain various hazardous materials such as hydraulic oil, diesel fuel, grease,

lubricants, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles.

Operations & Maintenance

Upon commissioning, the Projects would enter the operational phase. For the duration of the operational phase, the Projects would be operated and monitored remotely by a third party contractor, with an assumed two on-site visits for security, maintenance, and system monitoring per quarter (total of eight trips per year) by two third party employees in one light duty truck, and two on-site visits by four third party employees for biannual panel washing that includes one light duty truck and one water truck. Therefore the trips would be no more than 10 trips annually for security, maintenance, system monitoring and panel washing. There would be no personnel stationed on-site full time during operations. The PV arrays would produce electricity passively with minimal moving parts; therefore, maintenance requirements would be limited. Any required planned maintenance would be scheduled to avoid peak-load periods, and unplanned maintenance would typically be responded to as needed depending on the event.

Security

To ensure the safety of the public and the facilities, the sites would be fenced and signs would be posted. Security measures would be installed as necessary to mitigate and/or deter unauthorized access. Access to the sites would be controlled and gates would be installed at the roads entering the property.

Decommissioning Plan

A Decommissioning Plan for each of the Projects would be prepared and submitted for approval to Los Angeles County prior to obtaining a grading permit. The plan would assure that the land is protected during operations and returned as closely as possible to its original state upon termination of the use of the land as a SGF. It is unknown at this time if solar energy electricity production would continue to be utilized on this land in excess of 35 years, and thus the future long-term use of the site beyond 35 years is unknown. The life of each facility is presently proposed to be 35 years. The Decommissioning Plan would be implemented in the early summer of the year or year following the time of facility closure thus allowing the site reclamation to be completed outside of the rainy season and before winter begins. In the event that a Project ceases operations prior to completion of the 35-year estimated life of the Project, applicable provisions of the Decommissioning Plan would commence.

Section 1.1.3 Project Description—Features Unique to Project Site 6

Project 6 (Lancaster WAD) would have a generating capacity of 5 MW-AC and would be located on 38.5 acres of primarily unproductive agricultural land in unincorporated northern Los Angeles County. Project 6 would operate year-round, producing electric power during daytime hours.

The power generated by the Project 6 SGF would be connected to SCE's existing 12.47 kV distribution line running east-west along the south side of West Avenue D, with the voltage

transformation equipment and system safety equipment constructed on the site. Project 6 would interconnect via an undergrounded 0.02-mile gen-tie line across West Avenue D originating at the DC collection system within the Project 6 site.

Project 6 Telecommunications Lines

The primary telecommunication method for Project 6 is expected to be direct fiber optic cables placed overhead or underground along the path of the gen-tie line within the public ROW, or located on private land from the Project 6 site to existing or proposed telecommunication infrastructure. A dedicated broadband connection from a local provider will be secured at the Project 6 site.

Project 6 Construction

The proposed Project 6 construction schedule is to begin site preparation and construction in the second quarter of 2014, complete construction within approximately three months, and be commercially operational by the third quarter of 2014. Construction of the site, beginning with site preparation and grading through equipment setup and commencement of commercial operation, is expected to last approximately three months. The on-site workforce would consist of laborers, electricians, supervisory personnel, support personnel, and construction management personnel. Construction would generally occur during daylight hours, Monday through Friday. Construction activities would be conducted consistent with Los Angeles County regulations regarding hours of construction. Project 6 is expected to create 40 new jobs at peak crew size during the construction phase.

The maximum estimated water use for Project 6 is expected to be 24 acre feet, which would be trucked to this site from a private provider of out-of-Basin or other authorized water. Construction water needs would be limited to soil conditioning and dust suppression. Potable water would be brought to the Project 6 site for drinking and domestic needs.

Project 6 Operations

No personnel would be stationed at the facility, and no occupied structures would be built on the site. Full and part-time positions over the life of the Project would be required for periodic operation and maintenance activities, and would be performed by a third-party contractor. Operational water requirements for Project 6 would be 1.0 acre feet per year ("AFY").

Section 1.1.4 Discretionary Actions Required for Project 6

Implementation of Project 6 will require the following discretionary approval action by the County:

- **Conditional Use Permit ("CUP")**: To authorize the construction and operation of a solar photovoltaic electricity generating plant on 39 acres and installation of a water tank in the D-2-2 Zone. The project meets the definition of "electric generating plant" in the Los Angeles County Zoning Code. Pursuant to Section 22.32.090, electric generating plants are a use subject to a conditional use permit in the D-2 Zone.

Section 1.1.5 Statement of Project Objectives

Together, proposed Projects 1 – 6 would meet the existing and future demand for electricity generated from clean, renewable technology by generating 172 MW of electrical energy from the sun. Recent legislation enacted in California recognizes the multiple benefits associated with the development of renewable energy resources. These benefits include a reduced reliance on fossil fuel, diversification of energy portfolios, reductions in greenhouse gas ("GHG") emissions, and the creation of "green" jobs within the state of California. Additionally, the Projects would assist California in meeting the newly established Renewable Energy Portfolio Standards ("RPS"). Senate Bill 14 established RPS targets for California, stating: "All retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." State government agencies have been directed to take all appropriate actions to implement this target in all regulatory proceedings, including siting, permitting, and procurement for renewable energy power plants and transmission lines.

Each of the six proposed PV Project sites, including Project 6, qualify as eligible renewable energy resources as defined by the California Public Resources Code, and would help the State meet the objective of increasing renewable energy generation. In addition, Projects 1-6 would contribute much-needed competitive energy during peak power periods to the electrical grid in California.

As another key objective, Projects 1-6 have each been sited to minimize impacts to the environment and the local community as follows:

- Using disturbed land or land that has been previously degraded from prior use;
- Using existing electrical distribution facilities, rights-of-way, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities; and
- Minimizing impacts to threatened or endangered species or their habitats, wetlands and waters of the United States, cultural resources, and sensitive land uses.

SECTION 1.2 ENVIRONMENTAL IMPACT REPORT PROCESS

In accordance with State CEQA Guidelines Section 15063, the County completed an Initial Study (June 13, 2012) for the proposed Project, and determined that an Environmental Impact Report ("EIR") was required. A Notice of Preparation ("NOP"), including the Initial Study was circulated to the Governor's Office of Planning and Research, responsible, trustee, and interested agencies, and key interest groups beginning June 20, 2012 to solicit comments on the proposed content of the Draft EIR. The NOP was circulated for the required 30-day comment period which ended July 20, 2012. A Scoping Meeting was held on July 14, 2012 at the Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, to facilitate public review and comment on the Project.

The Draft EIR includes the Initial Study, the comment letters received during the public review period in response to the NOP, and a transcript of verbal comments received during the Scoping Meeting (see Draft EIR Appendix A-1 to A-5). All NOP comments relating to the EIR were reviewed and the issues raised in those comments were addressed, to the extent feasible, in the Draft EIR.

Potentially significant environmental impacts addressed in the Draft EIR include Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems. The Draft EIR analyzed both Project-level and cumulative effects of the Project on these topics and identified a variety of mitigation measures to minimize, reduce, avoid, or compensate for the potential adverse effects of the proposed Project.

The Draft EIR also analyzed five potential alternatives to the proposed Project, including: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites; 4) Rooftop Solar Generation; and 5) Wind Energy Generation. Potential environmental impacts of each of these alternatives were discussed at the CEQA-prescribed level of detail and comparisons were made to the proposed Project.

The Initial Study determined that the Project would result in less than significant or no impact to several environmental resource areas:

1) **Mineral Resources**: The Project would not have the potential to result in the loss of availability of a known mineral resource of value to the region, including those identified in a local general plan, specific plan, or other land use plan.

2) **Employment, Population & Housing**: The Project would provide significant short-term employment for construction workers during the two year construction period. The duration of construction for the Projects would be less than two years; and construction personnel would commute to the Projects from Lancaster, the Los Angeles areas, and Kern County. However, jobs would be temporary and would be for the two year construction period. Construction workers would not establish new households and are not anticipated to permanently relocate to the area. Additionally, adequate construction personnel presently living in Los Angeles and Kern County would fill all of the jobs that will be available. Area population, housing demands and the need for educational facilities and libraries would not be affected significantly because jobs that would be created are short term in nature; therefore, they would not be impacted by the Projects. Employment, Population, and Housing would not be impacted because the Projects do not require a significant number of personnel to operate them once they are built and producing electricity, and they do not have growth inducing impacts to the local community. Requirements for operations and maintenance are not significant and would be conducted by a few specialized contracted third-party personnel who will cover the Projects. There is no operations and maintenance building on any of the Projects 1-6.

3) **Recreation**: The Project would have no impact on recreation opportunities in the area. There are adequate recreation opportunities in the area, and the availability of these would not change as a result of the Project.

Following the Los Angeles County Department of Regional Planning ("LACDRP") internal departmental review and analysis of the proposed Project through the screencheck process, the Draft EIR was submitted to the State Clearinghouse, Governor's Office of Planning and Research, and circulated for public review period beginning January 6, 2014. The 45-day public review period required by State CEQA Guidelines Section 15087 ended on February 19, 2014.
A public hearing was held before the County's Hearing Examiner to take public testimony on the Draft EIR, at Lancaster Library located at 601 West Lancaster Boulevard in Lancaster, California, held at 1:00 p.m. on February 1, 2014. Approximately 80 people attended the Hearing Examiner meeting, and 26 attendees provided oral comments on the Draft EIR. A transcript of the oral comments made at the Hearing Examiner Meeting is contained in Section 2.0 of the Final EIR.

SECTION 1.3 PROJECT FINDINGS INTRODUCTION

The Findings made by the County, pursuant to Section 21081 of CEQA, and Section 15091 of the State CEQA Guidelines, on the consideration of Project 6 of the Silverado Power West Los Angeles County Project in unincorporated Los Angeles County, California are presented below. All potentially significant impacts of the Project identified in the Final EIR are included herein, and are organized according to the resources affected.

The Findings in this document are for Project 6 of the Silverado Power West Los Angeles County Project, and are supported by information and analysis from the Final EIR and other evidence in the administrative record.

For each significant impact, a Finding has been made as to one or more of the following, in accordance with Public Resources Code Section 21081 and State CEQA Guidelines Section 15091:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

A narrative of supporting facts follows the appropriate Finding. For all of the impacts, one or more of the findings above have been made. The proposed Project will not result in any significant and unavoidable impacts.

SECTION 2.0 FINDINGS REGARDING POTENTIAL ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

All Final EIR mitigation measures, as set forth in the MMRP (attached as Exhibit A to these findings) have been incorporated by reference into the conditions of approval for Project 6. These mitigation measures and conditions of approval will result in a substantial mitigation of the effects of Project 6, such that the effects are not significant or have been mitigated to a level of less than significant. Specifically, the Commission has determined, based on the Final EIR, that Project 6 design features, mitigation measures, and conditions of approval will reduce Project impacts concerning Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems to a level of less than significant.

2.1 AESTHETICS

Potential Effect:

Project 6 would have significant visual impacts to the Project area if it had a substantial adverse effect on a scenic vista; would be visible from, or obstruct views from a regional riding or hiking trail; substantially damage scenic resources including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features; or create a new source of substantial light or glare which will adversely affect day or nighttime views in the area.

Finding:

Changes or alterations have been required in, or incorporated into Project 6 which mitigate or avoid the potentially significant environmental effects related to Aesthetics.

Facts Supporting the Finding:

Project 6 would be not located along or in proximity to a state scenic highway. The Project 6 SGFs would not substantially damage or impact scenic resources such as trees (including Joshua trees) or rock outcroppings, and there are no historic buildings located in the Project 6 site. **(DEIR at 4.1-105)**.

The existing Project 6 site is currently open land in a rural area, and is typical of the surrounding landscape on the west side of the Antelope Valley Freeway. The visual quality of the site is low. The Project 6 site itself does not have unique or rare features, or hold special significance. The topography is uniform and flat. Vegetation is uniform and consists of desert scrub. No permanent

water features occur on the site, and there are no features or characteristics that set the Project 6 site apart from the surrounding of the desert landscape. **(DEIR at 4.1-111)**.

The Project 6 site is located in the west/central portion of the Antelope Valley, and it is flat with very little variation in topography. The site was previously used for agricultural operations, and is now fallow. Two-track marks are visible from aerial photographs where vehicles have been used onsite. Views of the landscape immediately around the Project 6 site reveal a predominantly flat landscape, and very little topographic variation is visible. **(DEIR at 4.1-61)**.

No riding or hiking trails were identified adjacent to the Project 6 site, and Project 6 would not cause the vacation of any trail. The SGF is not likely to be discernible from hiking trails on Little Buttes, located approximately 6 miles north/northwest of the Project 6 SGF site. The proposed Project 6 SGF would not likely be visible from any of the scenic resource locations identified by the City of Lancaster. The Antelope Valley is extremely flat, which limits the visibility of the Project 6 site unless the viewer is located in a superior position (at an elevation higher from the object/location being viewed). Draft EIR Figures 4.1-29 and 4.1-30 show representative views of the Antelope Valley from elevated locations in the Little Buttes area, Foothills Area, and California Poppy Reserve. These photographs demonstrate how visibility is limited from elevated viewpoints by distance and the flat landscape. Even from a superior viewing position at Little Buttes, a viewer is not likely to be able to distinguish the Project 6 site from a 6- mile distance. If the SGF was discernible from that distance, it would not appear dissimilar to an agricultural field in shape, and would largely fade into the flat landscape. The Project 6 gen-tie line would be undergrounded from the Project 6 site, under the adjacent road, to a riser next to an existing pole. **(DEIR at 4.1-62; 4.1-99; 4.1-104)**.

There are no designated scenic highways in the vicinity of the Project 6 site. The site is located approximately 1 mile east of the intersection of West Avenue D with the Antelope Valley Freeway. Although the Antelope Valley Freeway is not officially designated as a scenic route, it is mentioned in the City of Lancaster MEA as a potential scenic route for its long-range views of the surrounding mountains and close-in views of open desert lands (City of Lancaster 2009a). **(DEIR at 4.1-62)**.

Construction activities at the Project 6 SGF are not likely to be discernible from scenic resources because of the intervening distance. Construction activities are not likely to be noticeable from the Antelope Valley Freeway due to distance. Any visible dust produced during construction would be mitigated to less than significant with implementation of the fugitive dust plan. Any trash, debris, and waste would be removed from the Project site during construction and the site screened or partially screened by fencing as required by Mitigation Measures A-2 and A-3. Construction of Project 6 and its gen-tie line would not significantly degrade views from nearby scenic vistas. **(DEIR at 4.1-99; 4.1-105; 4.1-111)**.

Because construction activities would be limited to daylight hours, impacts from nighttime lighting would not occur. Lighting will comply with the Los Angeles County Rural Outdoor Lighting District Ordinance, and impacts would be less than significant with implementation of Mitigation Measure A-5. **(DEIR at 4.1-113)**.

Once operational, the Project 6 SGF components may be visible from the Antelope Valley Freeway, particularly from the southbound lanes north of the West Avenue D intersection, approximately 1 mile east of the site. The Antelope Valley Freeway is identified as a potential scenic route by the City of Lancaster's MEA (City of Lancaster 2009a) for its far-off views of surrounding mountain ranges and close-in views of open desert lands. However, because of its low profile, the Project 6 SGF would not obstruct far-off view of surrounding mountain ranges. Because the Project 6 site is separated from the Antelope Valley Freeway by 1 mile of open desert lands, it also would not interrupt the close-up views of the desert. **(DEIR at 4.1-99)**. Even where visible, the Project 6 SGF and gen-tie line would not be a dominant element in views from the Antelope Valley Freeway during or after construction, and from most locations along West Avenue D. As shown in the post-construction visual simulation in DEIR Figure 4.1-38, from 0.25 miles away, the solar modules would form a thin line that mimics the natural horizontal lines of the flat landscape, and would not be a dominant landscape feature. Drivers along the Antelope Valley Freeway would be moving at a high rate of speed, and mostly watching the road. Passengers on the Antelope Valley Freeway would be more likely to notice the SGF, but it would not be in view for longer than a few seconds because of the speed. The Project 6 SGF would be more prominent to drivers and passengers along West Avenue D because observers would be adjacent to the solar field. Drivers and passengers along West Avenue D would be adjacent to the SGF for 0.25 mile for less than 30 seconds if driving at the 55 mile per hour speed limit. Because the flat landscape limits far-off views of the SGF and gen-tie line, Project 6 would not be dominant in the landscape unless the vehicle is directly adjacent to the SGF during or after construction. A 10-foot vegetative buffer is proposed to mitigate views along the southern Project boundary for 0.25 mile where it is adjacent to West Avenue D, as required under Mitigation Measure A-4, which will reduce these visual impacts to less than significant. **(DEIR at 4.1-100)**.

Because of the low height of the solar modules, no significant shadows would be cast upon nearby sensitive land uses. The Project 6 SGF would not create a significant source of light. Light sources associated with the Project 6 SGF would be minimal, and would be restricted to that required for nighttime safety and security according to County requirements, and would comply with all requirements of the Los Angeles County Rural Outdoor Lighting District Ordinance. Only permitted types of lights would be used, and specified height limits employed. Lighting would be installed and directed downward and shielded to avoid light trespass. The amount of light generated by the security lights would be consistent with the provisions of the new Los Angeles County Rural Outdoor Lighting District Ordinance, and would allow less light trespass than existing sources of light produced by man-made structures adjacent to the Project 6 site, including residences, roadway lights, and other existing nearby facilities. Motion sensors and time limits would be employed per the lighting ordinance. Project 6 components would introduce minimal amounts of glare to the existing landscape. The PV modules are designed to absorb sunlight, and the glass modules that protect the PV surface are typically formulated to allow sunlight to pass with minimal reflection. Impacts from new sources of light or glare are expected to be less than significant with Mitigation Measure A-5. **(DEIR at 4.1-113)**.

A contrast rating was conducted from the viewpoint shown in Draft EIR Figure 4.1-38 (approximately 0.25 miles east of the Project 6 site) to assess the level of contrast that would be introduced by Project 6 to landform, vegetation, or structures in terms of major landform

characteristics (form, line, color, and texture). The height, bulk, pattern, and scale of the Project 6 features were considerations in the contrast rating process, which concluded that the Project 6 SGF can be expected to introduce a low level of contrast to the landscape from that viewpoint. No changes to landforms or vegetation would be visible. The Project 6 SGF would introduce new structures to the area, but the solar panel structures would be low-profile and the lines created would mimic the naturally flat lines of the foreground landscape. The color of the solar modules, which is dark gray at this distance and perspective, already exists in the landscape. From viewing points further than approximately 0.25 miles from the solar field, at approximately the same elevation, the solar facility would largely fade into the flat landscape and not dominate the view. Even though the SGF components are out-of-character with directly adjacent land (which is primarily rural residential and fallow agriculture), the SGF is not out-of-character when considering the context of the surrounding landscape. Rural development and public infrastructure are common in the landscape around the SGF site, and include an 800-acre water treatment plant, roadways, the Antelope Valley Freeway, communication towers, and rural residences. Wind turbines located at the foot of the Tehachapi Mountains are visible from the Project 6 site as well. Viewers such as nearby residents and travelers on the Antelope Valley Freeway and West Avenue D would still experience views of the open desert lands around the SGF after the facility is constructed (see DEIR Figure 4.1-38). A 10-foot vegetative buffer is proposed to mitigate views directly along the southern Project 6 boundary for 0.25 mile where it is adjacent to West Avenue D. Because other structures including PV solar facilities are common in the vicinity of the Project 6 site and in the larger Project area, and because the Project 6 site itself is not characterized by high visual quality, the visual impact of Project 6 on the existing visual character of the proposed site and its surroundings would be less than significant. The Project would have a less than significant impact with mitigation. **(DEIR at 4.1-112)**.

Project 6's visual impacts are further reduced with the adoption of the following feasible mitigation measures:

A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.

A-2 The Project site shall be maintained free of debris, trash, and waste during construction.

A-3 The Project site shall be visually screened or partially screened during construction by fencing.

A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.

A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on essential infrastructure rather than on separate light poles except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic

control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.

2.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Project 6 would have a significant impact on Agriculture and Forestry Resources if it would: convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract; conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220 (g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g)); result in the loss of forest land or conversion of forest land to non-forest use; or 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.

Finding:

Project 6 will not have a significant effect on the environment related to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

As currently mapped under 2010 data from the Department of Conservation ("DOC") Farmland Monitoring and Mapping Program ("FMMP"), the Project 6 site contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. **(DEIR at 4.2-5)**. Project 6 also contains no forest land, timberland, or timberland zoned Timberland Production. **(DEIR at 4.2-8)**.

Project 6 is located within the Los Angeles County Zoning Ordinance designation D-2, Desert-Mountain. According to LACDRP, permitted uses of Zone D-2 are identical to permitted uses of Zone A-2 (Chapter 22.32.090). A solar energy generating facility is allowed in Zone A-2 with the issuance of a CUP (Chapter 22.23.150[A]). Project 6 and the Project 6 gen-tie line are not located in an Agricultural Opportunity Area ("AOA"), and are not currently utilized for agricultural purposes. Additionally, the Project 6 property is not under a Williamson Act contract. As a result, construction and operation of Project 6 would not conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, Project 6 impacts to existing agricultural use zoning, designated AOAs, and Williamson Act contracts will be less than significant. **(DEIR at 4.2-8)**.

Project 6 and its associated gen-tie lines will temporarily preclude future agricultural use at the Project 6 site. Following the termination of power generating activities at the Project 6 site, all facilities and equipment would be removed and the land would be restored as near to its pre-

development condition as possible in the event a new similar land use is not contemplated at that time by then current owners. A decommissioning and reclamation plan detailing land restoration activities will be provided, as required by Los Angeles County as part of the CUP. Additionally, the Applicant will be required to provide a decommissioning bond, or other suitable financial guarantee acceptable to the County, equal to the amount of money estimated to be required to decommission the Project, including any additional environmental review which might become necessary, and restore the land to as near its pre-development condition as possible. Project 6 will not impact any land use outside the development site's limits. Impacts regarding the conversion of Farmland to non-agricultural use will be less than significant. **(DEIR at 4.2-9)**.

2.3 AIR QUALITY

Potential Effect:

Project 6 would have a significant impact on Air Quality if it would: conflict with or obstruct implementation of the applicable air quality plan; violate any air quality standard or contribute substantially to an existing or projected air quality violation; cumulatively produce a considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors); expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people.

Finding:

Changes or alterations have been required in, or incorporated into Project 6 which mitigate or avoid the potentially significant environmental effects related to Air Quality.

Facts Supporting the Finding:

Pursuant to the Clean Air Act ("CAA"), the Antelope Valley Air Quality Management District ("AVAQMD") is required to reduce project emissions of criteria pollutants for which the Mojave Desert Air Basin ("MDAB") is in non-attainment. Project 6 is located within a non-attainment area, which means that certain Project-related activities could potentially be subject to emission control strategies contained within the AVAQMD Federal 8-Hour Ozone Attainment Plan. Construction would involve activities that can result in emissions of particulate matter ("PM"). However, construction of PV panels and the generation-tie line would not require intense earthmoving activities, only the low-impact method of mowing the surface. Compliance with applicable rules, ordinances, plans, and policies would minimize PM emissions during construction. Project 6 construction emissions would not exceed emission thresholds, and would be less than significant. **(DEIR at 4.3-29, 30)**. Since construction of Projects 1-6 would occur consecutively over the course of two years, construction of the six Projects could overlap, which may cause a peak in the Projects' daily construction emissions. However, maximum daily and annual construction emissions would not exceed the appropriate AVAQMD significant

thresholds for all pollutants, even with the potential overlap in construction schedules. **(DEIR at 4.3-37)**.

During operation of Project 6, the Project site would undergo maintenance and security activities no more than 10 times annually (as needed), and would not create a daily increase in population or visitors. The assumption of 10 annual trips includes truck trips associated with panel washing. Project 6 would comply with AVAQMD rules and Los Angeles County ordinances, and is designed to be consistent with applicable county policies and the Attainment Plan. Therefore, Project 6 would not conflict with implementing the applicable air quality plan. **(DEIR at 4.3-41)**.

Project 6 emissions estimates are based on compliance with AVAQMD Rule 403 requirements for fugitive dust suppression, watering exposed surfaces two times daily. The short-term emissions during Project 6construction would not exceed AVAQMD significance thresholds. As such, Project 6 would not exceed thresholds, result in violating air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-29)**. Likewise, even when all six Projects operate concurrently, the operation of all six Projects would not exceed annual thresholds, violate air quality standards, or contribute substantially to an existing or projected air quality violation. **(DEIR at 4.3-42)**.

Decommissioning of Project 6 (and each of the six Project sites) would require removal of the PV modules, PV module mounting system, electrical boxes, electrical inverters and transformers, electrical AC collection system, switchgear, data monitoring equipment, chain link perimeter security fencing, concrete ballasts, underground vaults, other concrete pads, and transporting all components off site. Air quality emissions from decommissioning would be generated from the pieces of equipment used and any fugitive dust from site preparation activities. Equipment used for decommissioning and removal of concrete ballasts, underground vaults, concrete pads, etc. generally would be similar to that used for construction, except that no mowing or clearing would be required.

Since decommissioning does not involve mowing or clearing activities, the level of fugitive dust emissions would be less than emissions created during construction. After removal of equipment and facilities, the site would need to be re-vegetated. Decommissioning would occur after at least 25 years of operation; therefore, equipment engine technology is likely to be more advanced, and fuels to be cleaner. Criteria pollutant emissions during decommissioning would be equal to or, more likely, less than those estimated from construction for Project 6, and will also be less than significant with mitigation. **(DEIR at 4.3-42)**. Similar to criteria pollutant emissions, hazardous air pollutant emissions during decommissioning would be less than during construction due to advanced equipment engine technology and cleaner fuel and would therefore be less than significant. Exhaust from off-road equipment and on-road vehicles used during decommissioning and construction truck trips would not be expected to create objectionable odors, and would therefore be less than significant. **(DEIR at 4.3-42).**

The MDAB is currently nonattainment for federal and state ozone standards and nonattainment for state PM_{10} standards, which may cause emissions from Project 6 to contribute to an existing or projected air quality standard exceedance. Implementing any of the six Projects (including Project 6) would increase short-term emissions related to construction, and a negligible increase in long-term emissions related to SGF operation and maintenance. Construction for all six sites is

expected to be staggered, and may extend over two years. Nevertheless, due to the nature and size of each site, simultaneous construction would not result in emissions of ozone precursors or PM_{10} that exceed daily thresholds. As shown in DEIR Table 4.3-12, "Mitigated Peak Daily Concurrent Construction Emissions", and DEIR Table 4.3-13, "Peak Annual Concurrent Construction Emissions", the impacts would be less than significant prior to mitigation. Implementing control strategies to reduce PM_{10} further minimizes air emissions. As such, construction of Project 6 would not 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). **(DEIR at 4.3-43)**.

During the operation phase, Project 6 will have no major emissions sources. Facility operating equipment that emits regulated air pollutants or requires AVAQMD permits is not planned at Project 6 or any of the six Project sites. As shown in DEIR Table 4.3-20, "Peak Annual Concurrent Operation Emissions", the impacts would be less than significant. As such, operation of Project 6 would not 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). **(DEIR at 4.3-43)**.

Project 6 was analyzed for air impacts to nearby sensitive receptors; however, sensitive receptors would only be exposed during construction activities. PM_{10} and $PM_{2.5}$ concentrations are expected to occur primarily from fugitive dust emissions during mowing, excavation activities and, to a lesser degree, during PV installation and paving. Rule 401 requires that airborne particles remain on the site from which they originate under normal wind conditions. Proper mitigation techniques must be implemented to ensure that fugitive dust is contained. Emissions are not expected to expose even the closest sensitive receptors to substantial pollutant concentrations, and, due to the distance between Project sites, simultaneous construction at two sites would not significantly impact the same sensitive receptors. **(DEIR at 4.3-44)**.

Operational emissions from Project 6 would not impact local air pollutant levels at nearby receptors. As mentioned above, sensitive receptors would only be exposed, if at all, during construction activities. The primary source of Project emissions during operation is the vehicles used by facility maintenance staff traveling to and from the site. Maintenance is expected to occur no more than 10 times per year. Overall, Project 6 would not result in an increase in VMT over the course of one summer or winter day. Thus, Project 6 would not result in new long-term stationary sources, nor would they result in a significant number of net new vehicular trips. Carbon monoxide (CO) impacts from operation of Project 6 to sensitive receptors would be less than significant. **(DEIR at 4.3-44)**.

Short-term concentration levels during the construction phase will not expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than the EPA screening levels. **(DEIR at 4.3-45)**. Due to continuous construction of each of the six Project sites over the course of two years (which may overlap), long-term cancer impacts from construction activities to the nearest sensitive receptors were evaluated, and found that even with the cumulative contribution of health risk impacts from all six proposed Projects, the cumulative cancer risk to the identified sensitive receptors is still below the cancer risk exposure level.

(DEIR at 4.3-46). Short-term concentration levels during Project 6 site construction will neither expose sensitive receptors to substantial pollutant concentrations, nor exceed the cancer risk screening levels. **(DEIR at 4.3-47)**.

Project 6's Air Quality impacts are further reduced with the adoption of the following feasible mitigation measures:

AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction, or, in locations where water alone does not suffice to suppress dust adequately apply nontoxic chemical soil stabilizers, according to manufacturers' specifications. Temporarily stockpiled soil shall be secured with tarps or plastic sheeting or sprayed with non-toxic soil stabilizers.

AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).

AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.

AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.

AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.

AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.

AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.

AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.

AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.

2.4 BIOLOGICAL RESOURCES

Potential Effect:

Project 6 would have a significant impact on biological resources if it would: have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game Wildlife ("CDFW") or U.S. Fish and Wildlife Service ("USFWS"); have a substantial adverse effect on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, and regulations of CDFW or USFWS; have a substantial adverse effect on federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means; 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; 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) otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.); 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, Section 22.56.215), and the Sensitive Environmental Resource Areas ("SERAs"), (L.A. County Code, Title 22, Section 22.44, Part 6); or conflict with the provisions of an adopted state, regional, or local habitat conservation plan.

Finding:

Changes or alterations have been required in, or incorporated into Project 6 which mitigate or avoid the potentially significant environmental effects related to Biological Resources.

Facts Supporting the Finding:

Project 6 does not contain riparian habitat, coastal sage scrub, oak woodlands, wetlands, Joshua trees, or yucca trees on the site, and does not contain non-jurisdictional or state regulated waters. **(DEIR at 4.4-59)**. There are no wetlands, vernal pools, or riparian habitat identified on the Project 6 site. No federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by Section 404 of the Clean Water Act features, were identified on the Project 6 site. There is a man-made agricultural irrigation canal and detention basin on the Project 6 site, but these features do not support riparian vegetation or riparian habitats. **(DEIR at 4.4-61)**.

Project 6 does not contain oak trees, juniper trees, Joshua trees, or other unique native trees. **(DEIR at 4.4-62)**. Project 6 and the immediate vicinity do not contain or conflict with any Significant Ecological Areas ("SEAs"), Wildflower Reserve Areas, or Sensitive Environmental Resource Areas ("SERAs"). The closest SEA to Project 6 is Rosamond Lake SEA, 3 miles to the east. Therefore, Project 6 would not conflict with any local policies or ordinances protecting biological resources. **(DEIR at 4.4-64)**. There are no adopted state, regional, or local habitat conservation plans in effect within the boundaries of the Project 6 site. **(DEIR at 4.4-64)**.

Several special status plants have potential to occur or occurred on the Project 6 site. Spreading pygmyleaf has a moderate potential to occur, and the alkali mariposa lily has a high potential to occur on Project 6. The Mojave spineflower is a special status plant species that was observed during the Project 6 site visit. This species was present throughout multiple portions of the western half of Project 6. The Project 6 site has low potential for the following species to occur onsite: Bell's sage sparrow, coast horned lizard, Cooper's hawk, ferruginous hawk, least Bell's vireo, Le Conte's thrasher, Mohave ground squirrel, mountain plover, American badger, southern grasshopper mouse, white-faced ibis, and Swainson's hawk. **(DEIR at 4.4-59)**.

There is moderate potential for the burrowing owl to occur on the Project 6 site, and high potential for the loggerhead shrike to occur onsite. Developing the site as a solar generating facility would remove habitat for these species, which is a potentially significant impact as the 38.5 acres of land for Project 6 would be mostly unavailable as wildlife habitat during the life of Project 6. However, this impact is less than significant with mitigation. **(DEIR at 4.4-59)**.

Project 6 is within an area of topographically homogeneous open space, and there are no local constraints to movement of resident or migratory wildlife that development of Project 6 would further aggravate. There are no known wildlife migration pathways that would be impacted by Project 6. Wildlife nursery areas on the Project 6 site may include nesting sites of native bird species, which are protected by the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) and the California Fish and Game Code Section 3503. Burrowing owls may have suitable burrows on the Project 6 site, and protections for bird nesting

and burrowing owls are provided in mitigation measures B-1, B-2, B-3 and B-4. The intent of acquiring mitigation lands would be to select available parcels that would replace lost breeding/foraging/winter foraging habitat and enhance the overall quality of habitat for a variety of species including migratory bird species. The potential to acquire parcels that would also maintain or enhance wildlife migration corridors in the area would also be considered. Planting of shrubs and native vegetation on the Project site would improve the opportunities for shrub-nesting bird species on the Project 6 site when it is complete. **(DEIR at 4.4-61)**.

Project 6 impacts to Biological Resources are further reduced with the adoption of the following feasible mitigation measures:

B-1: Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to LACDRP and CDFW at their request.

B-2: Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below.

Pre-survey information gathering will include review of all available agency nest data and mapping.

- A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted.

- Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the

commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds.

- A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012).

  If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals.

  Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand-excavated and collapsed under the supervision of the avian biologist.

  Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals.

- Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.

B-3: During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW during construction activities, as frequently as required by LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals

the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.

B-4: Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily.

Swainson's hawk: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity.

The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats:

Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows:

- A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed SEA.

- A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat;

- A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat.

Burrowing Owl: Mitigation for any occupied burrowing owl burrows found during preconstruction surveys will include a comprehensive tiered approach:

- Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;

- Disturbance avoidance of occupied burrows during nesting period February 1 – August 31;

- Impact avoidance of occupied burrows;

- Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW).

- Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback).

- Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project.

Alkali Mariposa Lily: Alkali mariposa lily will be avoided to the greatest extent possible. If preconstruction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable.

For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.

B-5: Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition

proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria:

Habitat Management Land Selection Criteria: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired.

Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred.

Habitat Management Lands Acquisition: Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW.

The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s) acquisition in an amount acceptable to the LACDRP and CDFW.

Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the Applicant shall provide a proposed date of purchase which coincides with construction of the facility.

B-6: Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.

B-7: Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads) as follows:

Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock is not available, approximating low-growing communities such

as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.

2.5 CULTURAL RESOURCES AND PALEONTOLOGICAL RESOURCES

Potential Effect:

Project 6 would have a significant effect on Cultural Resources or Paleontological Resources if it would: cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5; cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of formal cemeteries.

Finding:

Changes or alterations have been required in, or incorporated into Project 6 which mitigate or avoid the potentially significant environmental effects related to Cultural Resources and Paleontological Resources.

Facts Supporting the Finding:

Site P19-004225, a historic-era farm complex was observed during the survey of Project 6 and was recorded. The features that made up the farm complex were demolished at some point in the past. Site P19-004225 is in ruins and lacks any physical integrity from its period of significance, and the recordation of surface artifacts has likely exhausted the date potential for the site. P19-004225 is recommended as not eligible for listing on the California Register of Historic Resources ("CRHR") or the National Register of Historic Places ("NRHP"), and no further management consideration of the resource is necessary. Therefore, construction and operation of Project 6 can cause no change in the level of significance to a historical or archaeological resource. **(DEIR at 4.5-26; 4.5-29)**.

There is a possibility that historical and/or archaeological materials would be uncovered during necessary subsurface excavations for the construction of Project 6. Although the likelihood of encountering archaeological resources on the site is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure CUL-1, which describes procedures to be followed in the event that cultural resources are discovered, is required. CUL-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-26)**.

No paleontological resources were detected during the transect survey of Project 6. Based on the paleontological assessment conducted for the EIR, it is unlikely that any intact significant paleontological resources are or will be located on the Project 6 site. Therefore, Project 6 would not directly or indirectly destroy a unique paleontological resource or site or unique geological

feature, or contain rock formations indicating potential paleontological resources. If Project excavations reach 10 feet or more below current grade and reveal that older Quaternary deposits and/or the later Miocene deposits are exposed, there will be a higher potential for encountering significant vertebrate fossil remains. Deep cuts should be inspected by a qualified paleontologist in an attempt to identify the more sensitive older alluvial strata. **(DEIR at 4.5-32)**.

There is a possibility that paleontological materials would be uncovered if excavations for the construction of the proposed Project 6 reach a depth of 10 feet or more below current grade. Although the likelihood of encountering paleontological resources within the Project 6 area is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure PALEO-1, the development of a Paleontological Resources Mitigation and Monitoring Plan ("PRMMP") by a qualified paleontologist is required if construction excavation depth is below 10 feet or more below current grade. PALEO-1 would reduce this potential impact to a less than significant level. **(DEIR at 4.5-32)**. Operation of Project 6 would not require any excavations to the depth of potential paleontological resources. There, operation of Project 6 would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources. **(DEIR at 4.5-32)**.

There is no indication that human remains are present within the boundaries of the Project 6 site. The records search and the field survey indicate no evidence of human remains on or near the sites. Project-related earth disturbance, however, has the potential to unearth previously undiscovered remains, resulting in a potentially significant impact. However, implementation of Mitigation Measure CUL-2 that describes procedures to be followed in the event that human remains are discovered would ensure that impacts are reduced to a less than significant level. **(DEIR at 4.5-32)**.

Project 6 impacts related to Cultural Resources are further reduced with the adoption of the following feasible mitigation measures:

CUL-1: In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist and Native American Monitor shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites.

If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping,

incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.

CUL-2: In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.

PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. The paleontologist shall develop and execute a PRMMP and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find to allow evaluation of the find and determination of appropriate treatment according to the Program.

2.6 GEOLOGY AND SOILS

Potential Effect:

Project 6 would have a significant effect on Geology and Soils if it would: expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic related ground failure, including liquefaction and lateral spreading; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides; result in substantial soil erosion or the loss of topsoil; 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; be located on expansive soil; have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater; or conflict with the Hillside Management Area

Ordinance or hillside design standards in the County General Plan Conservation and Open Space Element.

Finding:

Project 6 will not have a significant effect on the environment related to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

Project 6 and the Project 6 gen-tie line are not located in an active or potentially active fault zone according to the California Geological Survey ("CGS") Seismic Hazard Zone Maps (CGS 2008) and Alquist-Priolo Earthquake Fault Zoning Map (CGS 2010). The closest fault zones are the San Andreas Fault Zone, which is located approximately 12 miles to the south southwest of the Project 6 site, and the Garlock Fault Zone, which is located approximately 20 miles northwest of the Project 6 site. Based on research and available information, Project 6 is susceptible to seismicity, but is not susceptible to fault rupture; therefore, impacts involving the rupture of a known earthquake fault will be less than significant. **(DEIR at 4.6-14)**.

The United States Geological Survey ("USGS") National Seismic Hazard Map (2008) indicates that Project 6 and the Project 6 gen-tie line are located in an area mapped from 30 to 40 percent gravity for peak horizontal acceleration with a 10 percent probability of exceedance in the next 50 years. According to the USGS, and dependent on structural design, 10 percent gravity is the lower threshold at which damages to structures are likely to occur. Based on geologic and soil conditions at the site, the USGS Ground Motion Parameter Calculator indicates that Project 6 facilities will need to be designed to sustain spectral accelerations of approximately 0.52 to 1.313 percent gravity (USGS 2012). **(DEIR at 4.6-18)**.

Project 6 has the potential to be subjected to ground motion during construction. However, because of the temporary nature of the construction period relative to the frequency of occurrence of significant seismic events, the potential for Project 6 construction to expose people or structures to substantially adverse effects due to seismicity and ground motion will be less than significant. **(DEIR at 4.6-18)**. During operation of the facility, all Project 6 structures and operational facilities will be designed in accordance with the California Building Code ("CBC") and applicable industry standards. The design and construction of Project 6 would comply with all applicable building codes and standards established by regulatory agencies, including the Los Angeles County Department of Public Works and the CBC. Therefore, Project 6 impacts related to seismic shaking and strong ground motion hazards would be less than significant. **(DEIR at 4.6-18)**.

The CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 6 or the Project 6 gen-tie line as being located in zones with the potential for liquefaction or ground failure. Project 6 is located on loose sand and silt deposits in the upper 40 feet of the stratigraphic section which may be susceptible to liquefaction when saturated; however, groundwater levels have remained below 100 feet bgs (USGS 2008) for approximately 60 years. Based on available geologic

information, the potential susceptibility of ground failure is less than significant for Project 6 construction and operation. **(DEIR at 4.6-19)**.

The location of Project 6 and its associated gen-tie lines contain generally low slopes of less than 1 percent gradient. As indicated in the Project description, development of the solar facility would not result in significant changes to existing site grades, and would not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) does not identify Project 6 as being located in zones susceptible to landslides or slope failure. Therefore, the potential susceptibility for slope failure and landslides during construction and operation is less than significant for Project 6. **(DEIR at 4.6-20)**.

The soil series at the location of Project 6 and the Project 6 gen-tie line was indicated to be the Pod-Oban complex. This soil series has an erosion factor of 0.20 to 0.55, indicating a medium to high susceptibility to water erosion, and a wind erodibility group of 3, indicating a low to medium susceptibility to wind erosion. Implementation of appropriate erosion and sediment control will be implemented during construction and operation of Project 6, as outlined in Draft EIR Hydrology Section 4.9 and Air Quality Section 4.3, and will mitigate potential impacts to less than significant levels. **(DEIR at 4.6-22)**.

Based on the information in the Geotechnical Critical Issues Analyses and Custom Soil Resource Reports prepared by Tetra Tech, the location of Project 6 and the Project 6 gen-tie line contains generally low gradient slopes. Development of solar facilities will not result in significant changes to existing site grades, and will not increase the susceptibility to slope failure. Additionally, the CGS Seismic Hazard Zone Map (CGS 2008) indicates that Project 6 is not susceptible to landslide or liquefaction hazards. **(DEIR at 4.6-24)**.

Although subsidence has occurred throughout the Antelope Valley, the majority of subsidence has been concentrated near the City of Lancaster and was caused by excessive groundwater pumping and decreased water levels. Subsidence in the vicinity of Project 6 was between 2 to 3 feet from 1930 to 1992, and there has been no surficial evidence such as fissures and differential settling observed near the Project 6 location. Based on historic rates of subsidence and a relatively stabilizing water level due to reduced pumping and proposed aquifer management, future subsidence is expected to be minimal. In the event that minor future subsidence does occur, the potential impact to the proposed structural design (post mounted racking systems and relatively small foundations for electrical equipment) would be minimal. Based on geologic data and the proposed construction and operation as described in the Project description, Project 6 impacts to on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse will be less than significant. **(DEIR at 4.6-24)**.

The soil series at the location of Project 6 and the Project 6 gen-tie line was indicated to be the Pod-Oban complex. This soil series is rated for a low shrink/swell potential, and the potential for expansive soils to affect Project 6 is less than significant. **(DEIR at 4.6-26)**. Project 6 does not propose the use of any sanitary facilities that will require septic tanks or sanitary wastewater disposal during either construction or operation. Therefore, no impact will occur. Project 6 is located on the floor of the Antelope Valley where the terrain is nearly flat. Project 6 is not located in the hillside area, and is not affected by Hillside Management Areas. **(DEIR at 4.6-26)**.

2.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Project 6 would have a significant impact related to Greenhouse Gas Emissions and Climate Change if it would: generate direct or indirect GHG emissions that may have a significant impact on the environment, based on any applicable threshold of significance; or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Finding:

Changes or alterations have been required in, or incorporated into Project 6 which mitigate or avoid the potentially significant environmental effects related to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

Project 6's short-term GHG emissions during the construction phase (maximum daily emissions of 3,859 pounds per day) would not exceed the AVAQMD significance threshold for maximum daily emissions (548,000 pounds per day). As such, Project 6 would not exceed thresholds or result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-22, 23)**.

Because construction of the six Project sites may overlap, concurrent construction emissions of Projects 1-6 were analyzed by emissions per year and thus compared to the annual GHG threshold of 100,000 metric tons of CO_{2e} per year, for long-term emissions. The unmitigated peak annual construction levels for all six Project sites are expected to result in annual GHG emissions below the most stringent annual threshold proposed by the AVAQMD (100,000 tons per year). As such, the Project will not exceed thresholds or result in violating GHG standards or contribute substantially to an existing or projected GHG violation. **(DEIR at 4.7-23)**.

During operations, Project 6 facility operation would be limited to general maintenance, panel washing, and security. The primary source of emissions during operations is mainly the vehicles used by facility maintenance staff to and from the site. It is anticipated that operations and maintenance would utilize one water truck for panel washing and one light duty truck twice per year. Although Project 6 is scheduled for bi-annual panel washing, a maximum of ten trips were assumed for each Project (four round trips plus one additional round trip to be conservative). The operation emissions provided for each Project are considered the Project's baseline emissions, since it does not include any solar energy reductions. Because operations-related GHG emissions are considered long term, the AVAQMD daily significance threshold of 100,000 metric tons of CO_{2e} per year was used to analyze impacts during operations. The total annual operational emissions for Project 6 are 1.60 tons of CO_{2e} per year, which is well below the AVAQMD threshold of 100,000 tons per year. **(DEIR at 4.7-27)**. Likewise, concurrent operation of all six Projects is estimated to generate approximately 31 metric tons of CO_{2e} annually, which is well below the AVAQMD threshold. **(DEIR at 4.7-27)**.

Construction-related emissions from Project 6 would be temporary and finite in nature, below the applicable thresholds, and are consistent with the AB 32 Scoping Plan. Accordingly, Project 6's construction-related GHG emissions would not be a cumulatively considerable contribution to climate change. Project 6's operational GHG emissions would be negligible and would not comprise a cumulatively considerable contribution to climate change and, therefore, would be less than significant. **(DEIR at 4.7-28).**

Furthermore, with implementation of Project 6, there would be an added environmental benefit of displacing GHG emissions in the region. The solar energy generation would offset emissions from electricity usage, which would otherwise be produced by fossil-fueled power generation facilities using petroleum, natural gas, or coal combustion. Project 6 would result in a temporary increase in GHG emissions which is below the most stringent proposed threshold; employ active solar technologies supportive of the state's goals to reduce GHG emissions; and is consistent with the County of Los Angeles's goals. **(DEIR at 4.7-29)**.

Project 6 would therefore be in accordance with the state's need for the construction of renewable energy power plants to meet the state's GHG reduction objectives including:

- California's RPS that requires California's investor-owned electric utilities to obtain 20 percent of the electricity that they supply by 2010 from renewable sources;

- Executive Order S-14-08, which established the RPS targets for California that "all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020";

- Executive Order S-03-05 on climate change to advance renewable energy and other solutions to reduce California's GHG emissions; and

- The California Global Warming Solutions Act of 2006 (AB 32) that established a comprehensive program of regulatory and market mechanisms to reduce GHG emissions to 1990 levels by the year 2020.

Project 6 includes various project design features and objectives that address global climate change and reduce GHG emissions, as do each of the Projects 1-6. Project design features include aspects of the Project that either must be incorporated as part of the conditions of approval, or that the Applicant has committed to include to reduce GHG impacts associated with the Project. The Projects would be designed to reduce emissions through specific goals set. The expected Project features would directly or indirectly result in lower emissions of GHGs. The Project design features that address global climate change impacts include the following:

- Vegetation to sequester GHGs
    - Preserve natural areas by mowing, which maintains the organic material in the soil
    - Preserve open space by limiting constructing on portions of Project site
    - Plant trees and shrubs along the edges as buffers to adjacent receptors

- Construction limitations to minimize GHG emissions

- Limit construction equipment idling beyond regulation requirements
- Limit number of simultaneous construction projects by phasing

As such, Project 6 would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions. **(DEIR at 4.7-30)**. In addition to the Project design features listed above, the Project's impacts related to Greenhouse Gas Emissions and Climate Change are further reduced with the adoption of the following feasible mitigation measures:

GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.

GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not idle more than five minutes in any one hour.

GHG-3 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.

GHG-4 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.

GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.

2.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Project 6 would have a significant effect on Hazards and Hazardous Materials if it would: create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials; 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; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses; be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment; for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; for a project within

the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area; impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; expose people or structures to a significant risk of loss, injury, or death involving fires, due to location within a Very High Fire Hazard Severity Zones (Zone 4); expose people or structures to a significant risk of loss, injury or death involving fires, due to location within a high fire hazard area with inadequate access; expose people or structures to a significant risk of loss, injury or death involving fires due to location within an area with inadequate water and pressure to meet fire flow standards; expose people or structures to a significant risk of loss, injury or death involving fires due to location within proximity to land uses that have the potential for dangerous fire hazard; or constitute a potentially dangerous fire hazard.

Finding:

Changes or alterations have been required in, or incorporated into Project 6 which mitigate or avoid the potentially significant environmental effects related to Hazards and Hazardous Materials.

Facts Supporting the Finding:

Project 6 would not require extensive or ongoing use of hazardous materials. Hazardous materials used during the construction of Project 6 would be typical of most construction projects of this type. Hazardous materials used during construction activities may include gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, and other supplies. All hazardous materials would be transported, stored, and properly disposed of in compliance with all applicable laws and regulations. The accidental release of hazardous materials or wastes during construction activities is possible. The accidental release of hazardous materials or wastes would be promptly contained and abated in accordance with all applicable laws and regulatory requirements, and therefore is not expected to result in a significant impact. **(DEIR at 4.8-11)**. During operation of Project 6, limited quantities of hazardous materials would be stored on-site. These materials would include fire suppressant and transformer insulating oil (mineral oil). The mineral oil would be contained within Project 6 electrical transformers and switches. Project 6 would develop and implement a hazardous materials and hazardous waste management program for both construction and operational phases. The program would include the following, as required by applicable regulations. **(DEIR at 4.8-11)**.

- **Hazardous Materials and Hazardous Waste Handling:** The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 6. This program would be implemented prior to the start of construction activities. The program would prescribe proper hazardous material use, storage, and disposal requirements, as well as hazardous waste management procedures. The program would identify specific types of hazardous materials to be used during Project 6 construction and operation, and specific types of wastes that will be generated. All personnel would be provided with Project-specific training. These programs would be developed to ensure that all hazardous materials and hazardous wastes would be handled and disposed of in a safe and environmentally sound manner consistent with all

applicable laws and regulations. Employees and contractor personnel handling wastes would receive hazardous materials training and be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and treatment, storage, and disposal facility ("TSDF") training in accordance with Occupational Safety and Health Administration ("OSHA") Hazard Communication Standard and 22 CCR. Prior to the start of construction of Project 6, a Hazardous Materials Business Plan ("HMBP") will be prepared and submitted in accordance with Chapter 6.95 of the California Health and Safety Code and Title 22 CCR, as required by the Certified Unified Program Agency.

- **Construction Stormwater Pollution Prevention Plan:** The construction contractor would prepare a site-specific SWPPP for review and approval by the appropriate regulatory agencies and implement it prior to the start of demolition or construction activities at Project 6. The SWPPP would utilize BMPs to address the storage and handling of hazardous materials and sediment runoff during demolition and construction activities.

- **Transport of Hazardous Materials and Hazardous Wastes:** Hazardous materials transported by truck would include fuel (diesel fuel and gasoline) and oils and lubricants for equipment. Transportation of hazardous waste may include hazardous building materials and small amounts of construction waste such as waste oils, solvents, or cleaners. The construction contractor would prepare written procedures for the transport of hazardous materials and hazardous waste in accordance with the California Vehicle Code, California Highway Patrol Regulations (CCR Title 13); Department of Transportation Regulations, Title 49, CFR; and U.S. Environmental Protection Agency Regulations, Title 40 CFR, and CCR 22 regulations prior to the start of construction activities at Project 6.

- **Fueling and Maintenance of Construction Equipment:** The construction contractor would prepare written procedures for the fueling and maintenance of construction equipment prior to the start of construction activities at Project 6. Vehicles and equipment would be refueled off-site or on-site by refueling trucks. If on-site refueling or maintenance activities are required, refueling and maintenance procedures would include implementation of BMPs to ensure that chemicals do not come in contact with the ground. Equipment will be inspected daily for potential leakage or failures.

- **Emergency Release Response Procedures:** The construction contractor would prepare an Emergency Release Response Plan ("ERRP") detailing the response to releases of hazardous materials. The ERRP would be prepared prior to the start of construction activities at Project 6. The ERRP would prescribe hazardous materials handling procedures for reducing the potential for a release during construction activities, and would include an emergency response program to ensure the rapid and safe cleanup of any accidental spills. All hazardous material spills of threatened release would be immediately reported. All construction and operations personnel would be aware of federal, state, and local emergency response reporting guidelines. Implementation of the aforementioned hazardous materials and hazardous waste management programs would reduce the potential impacts associated with the handling, transport, and use of hazardous

materials during both construction and operation of Project 6 to less than significant levels. **(DEIR at 4.8-12)**.

If lead based paint is found during construction of Project 6, the Applicant would comply with County requirements and provide a copy of the qualifications/license of the lead based paint abatement contractor that will perform the abatement or removal of lead based paint to the Department of Public Works Building and Safety Division and the County of Los Angeles Fire Department Health and Hazardous Materials Division. If required by the County, the Applicant would prepare and submit a Hazardous Building Materials Demolition Assessment and Management Plan to the Department of Public Works and Fire Department for review and approval to ensure compliance with all applicable federal, State, and local laws, and regulations. OSHA regulations are in place to assure that these materials are safely removed prior to or during demolition and renovation activities. In compliance with regulations requiring removals by firms and individuals licensed to do such work pursuant to applicable regulations the Project's potential impacts regarding lead exposure would be less than significant. Implementation of the aforementioned ERRP would reduce the potential impacts associated with upset and accidental release conditions at Project 6 (and gen-tie lines) to less than significant levels. **(DEIR at 4.8-13)**.

Project 6 would convert sunlight directly into electrical energy without the creation of hazardous emissions, and no impact to sensitive land uses would occur as a result of hazardous emissions. The primary emissions created by Project 6 (and gen-tie lines) would be air emissions from vehicle and equipment exhaust generated during construction activities. Potential impacts due to air emissions created during construction and maintenance activities at Project 6 would be less than significant, as discussed in Section 4.3 of the DEIR. **(DEIR at 4.8-13)**.

Based on the Environmental Data Review ("EDR"), the location of Project 6 and the Project 6 gen-tie line is not located at a known site that is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5. No known releases have occurred at Project 6 or adjacent to Project 6. Based on the information compiled in the EDR, Project 6 would have no impact due to site hazards to the public and environment during construction or operations. **(DEIR at 4.8-14)**.

Project 6 is not located within the vicinity of a private airstrip. Based upon a review of the *General William J. Fox Airfield Land Use Compatibility Plan*, Project 6 and the Project 6 gen-tie line are located within the General William J. Fox Airfield land use plan. Project 6 is located in General William J. Fox Airfield's Zone E: Other Airport Environs. Generally, there is no concern with regard to any object up to 100 feet tall within Zone E. In addition, the Airport Land Use Commission ("ALUC") has stated that ALUC review of Project 6 is not required. Therefore, Project 6 impacts to public airports or public use airports would be less than significant. **(DEIR at 4.8-16)**.

Emergency response and evacuation procedures for Project 6 would be coordinated by the Los Angeles County Sheriff's Department ("LACSD") and the Los Angeles County Fire Department ("LACFD"). During Project 6 construction activities, the LACSD and LACFD require that adequate vehicular access be provided and maintained. The Traffic Control Plan for Project 6

would provide for the required access of emergency vehicles during construction activities. During operation of Project 6, Project operation staff would work with both the LACSD and the LACFD to ensure adequate emergency procedures are in place. The HMBP would include an Emergency Response Plan. Additionally, an Emergency Action Plan and a Fire Prevention Plan would be prepared for Project 6 as required by Cal/OSHA. These plans would ensure that Project 6 would have established plans and procedures for responding to emergency situations, and would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, Project 6 impacts to emergency response plans or emergency evacuation plans would be less than significant during both construction and operations. **(DEIR at 4.8-17)**.

Project 6 is not located within a Very High Fire Hazard Severity Zone. No impact would occur in this regard. **(DEIR at 4.8-17)**. A public water system for fire control does not exist near Project 6. The facility design includes a dedicated 10,000-gallon fire water storage tank to be installed and maintained at Project 6, in compliance with LACFD Regulation 19 and other applicable Fire Department water tank specifications. Because the SGF design includes a dedicated fire water tank meeting Fire Department requirements, the water and pressure would meet fire flow needs. Therefore, impacts would be less than significant. **(DEIR at 4.8-18)**.

Project 6 is surrounded by rural agricultural lands with no industrial uses, manufacturing uses, or other particularly high fire hazard uses in the vicinity. Project 6 would comply with all applicable Fire Code and County and City ordinance requirements, and fire safety standards, as stated in DEIR Section 4.12 Public Safety. A Fire Management Plan, which would be prepared for Project 6, establishes standards and practices that would minimize the risk of fire and, in the event of fire, provide for immediate suppression and notification. Therefore, a less than significant impact would occur. **(DEIR at 4.8-18)**.

Project 6 will convert sunlight into electrical energy through a process which would not constitute a fire hazard. All materials and equipment used in the construction of each facility would be specified based on applicable codes and building regulations. Welding activities may also potentially result in the combustion of brush and vegetation. A Fire Protection and Prevention Plan would reduce these potential impacts to less than significant. A Fire Prevention Plan would be prepared for Project 6 as required by Cal/OSHA, and Project 6 would include a dedicated 10,000- gallon fire water storage tank in compliance with LACFD Regulation 19. Therefore, Project 6 does not constitute a potentially dangerous fire hazard, and would have a less than significant impact on fire hazards in the area. **(DEIR at 4.8-19)**.

Project 6 impacts related to Hazards and Hazardous Materials are further reduced with the adoption of the following feasible mitigation measures:

HH-1 Prior to the start of construction activities, a Hazardous Materials Management and Hazardous Waste Management Plan shall be implemented for each project.

HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.

HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated.

2.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Project 6 would have a potentially significant impact on Hydrology and Water Quality if it would: violate any water quality standards or waste discharge requirements; 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; 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; 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; 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; generate construction or post-construction runoff that would violate applicable stormwater National Pollutant Discharge Elimination System ("NPDES") permits or otherwise significantly affect surface water or groundwater quality; 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); result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance; 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); otherwise substantially degrade water quality; 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; place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain; 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; or place structures in areas subject to inundation by seiche, tsunami, or mudflow.

Finding:

Changes or alterations have been required in, or incorporated into Project 6 which mitigate or avoid the potentially significant environmental effects related to Hydrology and Water Quality.

Facts Supporting the Finding:

A Notice of Intent form would be submitted to the State Water Resources Control Board ("SWRCB") to apply for coverage under the NPDES General Permit for construction of Project 6. During construction, Project 6 would implement BMPs as specified in the site-specific SWPPP. The SWPPP would be developed by a State of California certified Qualified SWPPP Developer ("QSD") and during construction monitored by a State of California certified Qualified SWPPP Practitioner ("QSP"). The SWPPP would be approved by the County and uploaded to the State via the State SMARTs system prior to Project 6 ground-breaking. The SWPPP would identify construction-phase BMPs to be implemented. With implementation of the BMPs, Project 6 and its associated gen-tie lines would only have the potential to generate less than significant effects on groundwater and/or stormwater runoff, and will not violate any water quality standards or waste discharge requirements during construction. **(DEIR at 4.9-34; 4.9-38)**.

During Project 6 operations, mechanical equipment on the solar farm would either be made of pollutant free materials or fitted with special containment units to house any possible drips or spills of lubricants, oils, or other chemicals. Maintenance activities, including solar array washing, would be performed with clean water and allowed to evaporate or drip to the ground. Maintenance and operations personnel would be required to maintain all necessary spill prevention, control, and countermeasures on hand during site visits. These spill response kits would include, but are not limited to, personal protective equipment, spill pads, absorbents, booms, shovels, garbage bags, plastic sheeting, and disposal drums. Permanent treatment BMPs would include infiltration basins to preserve water quality. With these spill prevention, control, and countermeasures on-site, there would be a less than significant impact on groundwater and stormwater runoff quality, and Project 6 will not violate any water quality standards or waste discharge requirements during operation. **(DEIR at 4.9-34; 4.9-38).**

As stated in Section 4.14.5 of the DEIR, water would be required for dust control measures during the duration of construction efforts. An analysis of the water supply, including the use of well water, is presented in DEIR Section 4.14 Utilities and Service Systems. At the outset of construction, water would be supplied via truck to meet the demands of Project 6. Well water is not considered available at this time, and would be reevaluated upon a change in status. The demands of Project 6 are anticipated to have a less than significant impact on the region's groundwater supplies. Furthermore, construction activities are not anticipated to interfere substantially with groundwater recharge. As stated in Section 4.14.5 of the DEIR, water may be required in the first few years of operation to establish the mature vegetation planted after construction. Similar to the construction period, water would be supplied via truck to Project 6. The volume of water required would be considerably less than the water required for construction activities. Well water would be considered if its availability changes. As with construction, impacts to the region's groundwater supplies are anticipated to be less than significant with operation of Project 6. Also, the effect on groundwater recharge by the development's increase in impervious surface will be mitigated by the proposed infiltration basins. These infiltration basins will allow the increase in runoff volume from the proposed development (up to the 25-year storm event) to infiltrate on-site and recharge the groundwater basin. Therefore, less than significant impacts to groundwater recharge are anticipated. **(DEIR at 4.9-35)**.

During construction of Project 6 and its associated gen-tie lines, soils would be disturbed through activities such as minor grading and vegetation removal, which could lead to issues with soil erosion and siltation on- and off-site. Through the implementation of construction control measures per California Association of Stormwater Quality Agencies ("CASQA") standards (silt fencing, fiber rolls, and sandbag barriers), Project 6 would have less than significant impacts on erosion and debris deposition during construction (CASQA 2003). Project 6 and its associated gen-tie lines would require minor grading on-site which would not drastically change the existing drainage patterns or natural channels. Best Management Practices and the Hydrology Study/Drainage Concept/Standard Urban Stormwater Mitigation Plan ("SUSMP")/Low Impact Development ("LID") Reports would help account for the increase in runoff erosion capabilities resulting from the developments' increase in impervious surfaces. The infiltration basins would help reduce flow velocities and the sediment load of the runoff, which would lower the erosion and siltation capabilities of the runoff. Therefore, Project 6 would result in less than significant impacts to erosion and siltation on- and off-site. **(DEIR at 4.9-36)**.

Project 6 and its associated gen-tie lines would require minor grading on-site, which would not drastically change the existing drainage patterns or natural channels. The increase in runoff flow rates and volumes from the developments' increase in impervious surfaces would be addressed by Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to pre-development flow conditions before leaving the project site. With this measure, less than significant impacts would occur related to flooding on- and off-site. **(DEIR at 4.9-36)**.

Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would address the increase in runoff flow rates and volumes from the developments' increase in impervious surfaces. The infiltration basins, created by elevated road sections, would capture the increase in runoff volume (up to the 25-year storm event) and allow it to infiltrate on-site. The remaining runoff would flow over the road section and return to predevelopment flow conditions before leaving the Project site. The basins would be placed within the first half of the site to allow flows over the roads sections enough time to normalize before leaving Project 6. Project soils would treat the captured runoff at the infiltration basins. Therefore, less than significant impacts to existing or planned stormwater drainage systems are anticipated. Also, significant impacts to polluted runoff are not anticipated. **(DEIR at 4.9-36)**.

Project 6 and its associated gen-tie lines would incorporate Los Angeles County LID standards, while following the requirements of the Los Angeles County Department of Public Works ("LACDPW"). Existing on-site drainage patterns and channels would not be significantly altered by the Projects' minimal grading, and all off-site drainage patterns and channels would not be significantly impacted either. Best Management Practices and the Hydrology Study/Drainage Concept/SUSMP/LID Reports located in DEIR Appendix B-7 would allow the developments' increase in runoff (up to the 25-year storm event) to be both infiltrated and treated on-site. This also minimizes downstream impacts by returning to predevelopment flow conditions. Therefore, Project 6 will not conflict with the Los Angeles County Low Impact Development Ordinance. **(DEIR at 4.9-38)**.

Project 6 and its associated gen-tie lines are not in the vicinity of any SWRCB-designated Areas of Special Biological Significance. Therefore, no impacts are anticipated. During construction, wastewater treatment systems would not be necessary. The Projects would contract services to supply and maintain portable toilets. Therefore, the impacts of Project 6 to the quality of groundwater and surface water would be less than significant during construction. The same portable toilet services would be contracted for operations. Temporary portable toilet services would be delivered during the required maintenance periods on an as needed basis. As a result, there would be less than significant impacts to the water quality of groundwater and surface water during Project 6 operations. **(DEIR at 4.9-39)**.

Project 6 is located within a 100-year flood hazard area. Some of the proposed infiltration basins within Project 6, created by elevated road sections, cross the 100-year flow area. Once full, runoff will flow over the elevated road section. These basins have been placed in the first half of the Project 6 site to allow the flows to normalize and return to their pre-development sheet flow condition before leaving the Project 6 site. Therefore, the proposed basins will not significantly impede or redirect the flood flows. Project 6 does not involve the construction of housing. Therefore, no housing will be placed within a 100-year flood hazard area, and no impacts are anticipated. **(DEIR at 4.9-39, 40)**.

Project 6 and its associated gen-tie lines are not within the immediate vicinity of any levees or dams which would place people or structures at risk of significant loss, injury or death in the event of a failure. In the event of a failure of the aqueduct near Project 6, the distance between the site and the aqueduct would allow the flow to dissipate. Therefore, less than significant impacts are anticipated. Project 6 has slopes that are very mild, at less than two percent. Therefore, high mudflow conditions are not anticipated. Accordingly, Project 6 will not place structures in an area subject to inundation by seiche, tsunami or mudflow. **(DEIR at 4.9-40)**.

Project 6 impacts related to Hydrology and Water Quality are further reduced with the adoption of the following feasible mitigation measures:

HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be available at each project site and a log kept to show education has occurred prior to the start of construction.

HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-3 No hazardous materials are anticipated to be stored on-site. If hazardous materials are required to be stored on-site, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code and store the materials according to applicable regulations. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance with the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.

HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often to prevent containers from overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.

2.10 LAND USE AND PLANNING

Potential Effect:

Project 6 would have a significant effect related to Land Use and Planning if it would: physically divide an established community; be inconsistent with 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; be inconsistent with the zoning ordinance as applicable to the subject properties; or conflict with Hillside Management criteria, Significant Ecological Areas conformance criteria, or other applicable land use criteria.

Finding:

Project 6 will not have a significant effect on the environment related to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

Project 6 is located within a sparsely populated area, and is not located within any established community. The closest established community is Antelope Acres, which is located

approximately 1.4 miles north of Project 3, the nearest of the six Project sites. Project 6 is located in an area that has been characterized by agricultural uses for several decades, and has been in transition to residential uses or vacant land. Project 6 would not physically alter the community, would not divide any community, or change any public access routes to them. Impacts would be considered to be less than significant. Likewise, Project 6's proposed gen-tie lines would not result in physical improvements that would result in dividing an established community, and the proposed gen-tie line would be located within a public right-of-way or an easement on private land. Therefore, Project 6 would not divide an established community, and impacts would be less than significant. **(DEIR at 4.10-36)**.

Project 6 is not located within the boundaries of a Community Standards District; therefore, no district development standards apply to Project 6. The Antelope Valley Areawide General Plan designates the Project 6 site as N-1, Non-Urban use. According to the Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations (County of Los Angeles 1986). Project 6 is considered a utility installation, and therefore would be consistent with the N-1 land use designation. As a result, Project 6 would be consistent with the General Plan Land Use designation. Development of Project 6 will be consistent with permissible uses associated with the land use designation and the policies, goals, and objectives outlined in the Los Angeles County General Plan and the Antelope Valley Areawide General Plan, and will not be inconsistent with any applicable County plan. **(DEIR at 4.10-36)**.

The gen-tie lines for Project 6 are linear infrastructure that would not result in any changes to the existing land use patterns in the area of Project 6. The gen-tie lines would be located underground within Los Angeles County to the extent practicable, and aboveground within the City of Lancaster, either in a public road ROW or on private lands adjacent to the public road ROW. Within the City of Lancaster, the gen-tie line routes would traverse land use designations "NU" Residential and "UR" in the City of Lancaster. According to the County's Antelope Valley Areawide General Plan, allowable uses in the N-1 designation include utility installations. Additionally, the City's NU land use designation permits solar generating facilities and utility installations within its designation. In July 2013, the City approved a General Plan Amendment for the UR designation to NU designation for another applicant's solar project that the gen-tie line would traverse to connect to the Antelope Substation. A franchise agreement will be obtained by the Applicant with the City of Lancaster for the gen-tie line that will traverse through this jurisdiction. This agreement will grant a utility franchise and right of way privileges for the proposed gen-tie line. Therefore, no impact to County and City Plans would occur**.** **(DEIR at 4.10-37)**.

The Project 6 and associated gen-tie line would be located within the Fox Airfield Airport Influence Area ("AIA"), Zone E. Prohibited uses under Zone E include hazards to flight (Los Angeles County ALUC 2004). Hazards to flight include physical (e.g. tall objects), visual, and electronic forms of interference with the safety of aircraft operations. Land use development that may cause the attraction of birds to increase is also prohibited. Project 6 and its associated gen-tie line would be consistent with the Fox Airfield Land Use Compatibility Plan. Therefore, impacts would be less than significant. **(DEIR at 4.10-37)**.

The County's CUP entitlement process involves the discretionary review of a project, whereby conditions of approval for Project 6 would be assigned. A CUP Burden of Proof is required to be submitted to determine Project 6's consistency with the General Plan, compatibility with surrounding land uses, conditions to ensure compatibility, land suitability and physical constraints, project design, availability of adequate access, public services and facilities to serve the development, and identify potential environmental impacts and mitigation measures. As shown in DEIR Tables 4.10-1, 4.10-2, and 4.10-3, Project 6 is consistent with County land use designations and compatible with adjacent and surrounding land uses. **(DEIR at 4.10-43)**. The implementation of the environmental mitigation measures and CUP conditions would be expected to minimize Project 6's potential impacts, such that the Project could occur while maintaining zoning compliance within the designated zone. As a result, Project 6 would be consistent with the County's zoning designations. Permitting processes for those portions of the gen-tie lines located in the City of Lancaster would require necessary approvals from the City. Compliance with applicable City zoning regulations and conditions would ensure consistency with City's zoning designations. **(DEIR at 4.10-38)**.

Project 6 is located within the Desert Mountain (D-2) zone. Under the County's zoning code for Zone D-2 (Los Angeles Code Section 22.32.090), any use permitted in Zone A-2 and Light Manufacturing (M-1) is permitted under Zone D-2. Electric generating facilities, solar generating facilities, and transmission substations are permitted under Zones A-2 and M-1; Project 6 and gen-tie line are therefore permitted under Zone D-2 with a CUP. The proposed Project 6 gen-tie line would be constructed underground within Los Angeles County, unless other applicable regulations require above-ground installation. The gen-tie line would be located on private lands adjacent to the public road ROW or within the public road ROW. The gen-tie line is linear infrastructure that would not result in any changes to the existing land use patterns in the proposed Project area, and would be permitted as part of the CUP. As a result, implementation of the proposed Project 6 and gen-tie line would be expected to be consistent with the zoning designation. Therefore, Project 6 and its associated gen-tie line would result in a less than significant impact relative to the D-2 zoning in Los Angeles County. **(DEIR at 4.10-39)**.

As discussed in DEIR Section 4.4 Biological Resources, Project 6 and its associated gen-tie lines are not located within a designated SEA; therefore, SEA conformance criteria do not apply. Project 6 and the area for its associated gen-tie lines contain generally low slopes of less than 1 percent gradient, and would not be located within or conflict with designated Hillside Management Areas. Therefore, no impacts would occur. **(DEIR at 4.10-39)**.

Project 6 is not located within an Agricultural Opportunity Area. **(DEIR at 4.10-41)**. Project 6 contain no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance **(DEIR at 4.10-40)**. No railroads are located within 0.5 miles from Project 6 and gen-tie line. The nearest major highway is State Route 14, which is located approximately one mile east of Project 6. Project 6 is located approximately 2.16 miles north of Fox Airfield and is located within Zone E of the Airport Land Use Compatibility Plan for Fox Airfield. Zone E contains areas beyond the 55 CNEL contour and represents areas where sounds from the airport are not a concern, or in other words are low level such that sounds from operation of the airport largely blend in with the ambient background noise. Sound levels for Project 6 would be less than 55 dBA outside of the Project limits and therefore, less than significant with regard to any noise management area. **(DEIR at 4.10-42)**.

Project 6 and its gen-tie line are located entirely within Zone A of the 100 year floodplain. Measures would be taken in the design of the gen-tie lines to account for the flood hazards. Therefore, a less than significant impact would occur. **(DEIR at 4.10-41)**.

2.11 NOISE

Potential Effect:

Project 6 would have a significant Noise impact if it would: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the project; result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or, for a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Finding:

Changes or alterations have been required in, or incorporated into Project 6 which mitigate or avoid the potentially significant environmental effects related to Noise.

Facts Supporting the Finding:

Construction of Project 6 would take place between the second and third quarters of 2014. Sound generated from Project 6 would consist of: (1) short duration sounds resulting from construction activities, and (2) sound during normal facility operations. Vibration from Project 6 would only result during construction. Construction activities would take place only during daytime hours. An evaluation of expected noise and vibration levels was performed, and the ability of Project 6 to comply with applicable noise requirements was assessed.

The Draft EIR determined that the construction noise for Project 6 would be similar to that of Project 1; therefore, the Draft EIR's discussion of Project 6's noise impacts focused on the differences between Project 1 and Project 6, namely received sound levels at the nearest noise sensitive receptor. **(DEIR at 4.11-44)**. These Findings refer to certain facts from the Draft EIR's discussion of Project 1 noise impacts that are also applicable to Project 6.

For Project 6, the following criteria were determined to be inapplicable or to result in no impact:

- Exposure of on-site workers to noise levels that exceed occupational safety standards (90 dBA as a time-weighted 8-hour average or peak noise levels above 115 dBA).

- Exposure of residents to airport or private airstrip-related noise levels above a CNEL of 65 dBA.

Occupational noise exposure is governed by federal and state regulations. Cal/OSHA administers industrial safety regulations in California. Cal/OSHA regulations establish a time-weighted noise exposure limit of 90 dBA averaged over 8 hours (CCR, Title 8, Article 105). Noise source controls, administrative procedures, or worker hearing protection must be provided if worker noise exposure would exceed the 90 dBA limit. The construction contractor selected for the Project would be required to follow Cal/OSHA requirements for construction worker noise exposure. **(DEIR at 4.11-25; 4.11-30)**.

Sound from construction equipment would vary, depending on the construction phase and the number and class of equipment at a location at any given time. Actual received sound levels would fluctuate, depending on the construction activity, equipment type, and separation distances between source and receiver. **(DEIR at 4.11-30)**. Construction noise is a temporary noise source that would only occur during daytime hours. Sound levels from construction are expected to be comparable to sound produced by farm machinery, such as equipment used in nearby agricultural fields. Worst case construction noise levels for the nearest residence would last no more than a few weeks, as construction activities progress across Project 6. Therefore, no one residence would be exposed to significant noise levels for any extended period of time. **(DEIR at 4.11-27)**.

Sound from pile driving would attenuate to 76 dBA at the nearest residence to Project 6, and would attenuate to below 60 dBA within 1 linear mile of this construction activity, depending on meteorological and topographical effects. The average noise level from pile driving is predicted to be 68 dBA, similar to the level resulting at the Project centroid located 1,300 feet from the nearest residence. Because sound levels would be higher than 60 dBA at times, and up to 76 dBA at the closest residence, an exceedance of the County's construction noise level limits is anticipated. Therefore, where pile driving is planned to occur within 3,000 feet of an occupied noise sensitive receptor, an acoustic curtain or sound barrier with a sound transmission class of 19 or greater will be used to reduce received sound levels at the noise sensitive receptors to levels at or below the County's construction noise limit of 60 dBA. Pile driving is expected to last more than 10 days, and a variance from the County of Los Angeles noise ordinance will be required. **(DEIR at 4.11-45)**.

Traffic noise generated during construction of Project 6 on and offsite would temporarily add to overall sound levels. As a general construction practice, functional mufflers would be maintained on all equipment to maintain noise levels as low as reasonably achievable. The Project 6 Applicant would make reasonable efforts to minimize noise resulting from construction activities, as described in Mitigation Measures N1 - N6. In sum, with mitigation measures implemented, including the use of sound curtains or barriers during pile driving, construction sound levels would be less than significant. **(DEIR at 4.11-27; 4.11-31)**.

The average vibration level generated by Project 6 construction activities will be 0.01 PPV, which would be barely perceptible to humans. Similar to the noise from pile driving, vibration from pile driving would only last for a few weeks at most, and would move throughout the Project rapidly with no single noise sensitive receptor experiencing the peak 0.03 PPV for more

than a few hours, which will be perceptible but will not damage structures. Therefore, exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels due to the construction of Project 6 and the gen-tie line will be less than significant. **(DEIR at 4.11-50, 51)**.

Project 6 would be located 2.3 miles from General William J. Fox Airfield and 4.5 miles from Little Buttes Antique Airfield. Project 6 would be within Zone E of the General William J. Fox Airfield land use compatibility plan (Los Angeles County Airport Land Use Commission 2004). Project 6 is not a residential or commercial use that would subject residents or workers to noise impacts from the airport. Little Buttes Antique Airfield is a low use airport, and no sound contours have been prepared for this airfield. Because of low operation levels at Little Buttes Antique Airfield and distance from both airports, sound levels from both airfields are assumed to be below 55 dBA CNEL. Project 6 would not create residential land uses, and all Project features are outside the airfield area of influence. In addition to not creating any residential development, Project 6 would only have a temporary impact on construction workers. Consequently, there are no impacts from airport-related noise.

Once operational, Project 6 would generate power using PV modules mounted in rows of parallel racks. The Project is anticipated to be unmanned during normal operation. Systems monitoring would be completed remotely and onsite staff would be limited to repair or cleaning of the PV modules. Maintenance staff would visit two times per year to clean the PV modules, seasonally to clear vegetation, and as needed to perform other general maintenance activities. **(DEIR at 4.11-35)**. Sound sources considered in the operational acoustic analysis include the inverters and transformers associated with the PV modules, the substation, and the transmission line. The principal sources of noise are the cooling-ventilation fans, the electrical components of the inverters and the step-up transformers at the on-site substations. Gen-tie lines for Project 6 would be aboveground, and therefore corona noise could occur. However, because corona noise is typically attributed to higher voltage lines of approximately 345 kV and above, noise complaints from the Project's lower voltage transmission lines (66 kV) are not anticipated. These sound sources are all predicted to be less than 35 dBA at nearby noise sensitive receptors, and would be less than significant. Overall, operational sound sources are all predicted to be less than 35 dBA at nearby noise-sensitive receptors, and would be less than significant. **(DEIR at 4.11-45 to 4.11-46)**.

Project 6 impacts related to Noise are further reduced with the adoption of the following feasible mitigation measures:

N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.

N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.

N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.

N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.

N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.

N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.

N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest noise sensitive receptor are predicted to be above the County construction noise limit of 60 dBA during the day. With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may need to incorporate appropriate mitigation measures, including:

N-9 The Applicant shall use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.

2.12 PUBLIC SERVICES

Potential Effect:

Project 6 would have a significant impact on Public Services if it would 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 fire protection; sheriff protection; schools; parks; libraries, or other public facilities.

Finding:

Project 6 will not have a significant effect on the environment related to Public Services. No mitigation is required.

Facts Supporting the Finding:

Project 6 is located within the LACFD Battalion 11 service area. Station 112, which is 5.6 miles southwest of Project 6, is the jurisdictional station (i.e. the first-responder) to respond to incidents at the site. Additional fire stations within Battalion 11 (identified in DEIR Table 4.12-1) would also potentially be dispatched to respond to fire protection needs at the site. **(DEIR at 4.12-10)**.

During construction, workers would be temporary and would not be expected to relocate to the Project 6 area, as they would mostly be hired from the available local workforce, and would not be expected to result in significant changes to the local population; therefore, the construction of Project 6 is not anticipated to create significant changes to the local population that would increase the level of demand on fire protection services or that would increase the level of demand on the fire department services such that additional staff would be needed. **(DEIR at 4.12-10)**.

As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 6 would not result in significant traffic impacts. However, Project 6 would involve construction of an underground 0.02 mile gen-tie line across West Avenue D. Transmission line construction would require work in the public road ROW, including limited encroachment into the traveled roadway. It is anticipated that the construction of the Project 6 gen-tie line would only require partial street closures, which provide better emergency access than full street closures. Worksite traffic control plans, permits, and coordination with County departments will be required regarding potential construction impacts to West Avenue D. Additionally, the LACFD Fire Stations 33, 112, and 130 would be notified at a minimum of three days in advance of any street closures that may affect fire/paramedic responses in the area. In the event that Project 6 would require street closures, alternate route details (detour plans) and the schedule of closures would be submitted to the LACFD prior to construction. Implementation of Mitigation Measure TT-3 would minimize potential effects to West Avenue D such that the impact to LACFD access and response times would be less than significant. **(DEIR at 4.12-10)**.

Based on the Applicant's commitment to conformance of construction activities at the Project 6 site and gen-tie line ROW to federal, state, and Los Angeles County ordinances for fire protection, and implementation of mitigation related to Hazards and Hazardous Materials, construction would not be expected to result in significant special fire problems or hazards. Additionally, construction traffic at the site would not be anticipated to have a significant impact on local intersections and road segments. Therefore, Project 6 impacts to LACFD service ratios, response times, or other performance objectives for fire protection would be less than significant. **(DEIR at 4.12-10)**.

Operations activities at Project 6 would typically be associated with routine maintenance carried out on-site and along the associated gen-tie ROWs at periodic intervals by a small maintenance

crew. These activities would not result in effects to LACFD service ratios, response times, or other performance objectives for fire protection during operations of Project 6; therefore, impacts would be less than significant. In addition, the Applicant would be required to pay taxes as per the Proposition E Special Tax and property tax assessments, which are allocated to the LACFD. These taxes are designed to provide for potential increases in LACFD fire protection service demands to accommodate for new and existing developments. **(DEIR at 4.12-11).**

The Project 6 site is located within the LACSD Field Operations Region 1 service area. The Lancaster Station, which is approximately 6.1 miles southeast of Project 6, would likely be the first responder to incidents at the site. Currently the station maintains an officer-to-population service ratio of approximately 1 to 1,000. Project 6 does not involve any residential uses, and would not be considered to result in significant increases to population. During construction, workers would be temporary, and would not be expected to relocate to the area as they would mostly be hired from the available local workforce. The employees are planned to be hired from the available local workforce, and would not be expected to result in significant changes to the local population that would increase the level of demand on law enforcement services. **(DEIR at 4.12-14)**.

Sheriff services potentially required at Project 6 would likely include incidents of vandalism or theft. While these incidents would require sheriff services, they are not considered emergency response incidents, and as such would not affect emergency response times. As discussed in DEIR Section 4.13, Transportation and Traffic, construction of Project 6 would not result in significant traffic impacts, and any impacts associated with street closures due to installation of the underground gen-tie lines will be addressed through the use of worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts to West Avenue D. Therefore, impacts from the construction of Project 6 to LACSD service ratios, response times, or other performance objectives for sheriff protection would be less than significant. **(DEIR at 4.12-14)**.

Project 6 and its associated gen-tie lines do not include residential development or the influx of long-term workers from outside the area, and accordingly would not generate population growth. Consequently, no new demands on school facilities, parks, library facilities or other public facilities are expected, and no impact would occur to these facilities. **(DEIR at 4.12-15; 4.12-16)**.

2.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Project 6 would have a significant impact on Transportation and Traffic if it would: 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; conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards

established by the county congestion management agency for designated roads or highways; result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks; substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); result in inadequate emergency access; or conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Finding:

Changes or alterations have been required in, or incorporated into Project 6 which mitigate or avoid the potentially significant environmental effects related to Transportation and Traffic.

Facts Supporting the Finding:

Traffic generated during the construction phase of Project 6 and its gen-tie line would include construction worker commuter trips, water truck trips, and delivery truck trips. Construction worker commuter trips and delivery truck trips are anticipated to arrive to the Project 6 site outside of peak hours. It is anticipated that 30 percent of water trucks would arrive to the Project site during the AM peak hour. Project 6 would have an average of 30 workers per day and a peak of 40 workers per day over a 12-day period during construction. For equipment and materials, Project 6 would have an average of 4 delivery truck trips per day with an expected peak of 26 delivery truck trips. It is anticipated that construction workers and delivery trucks would arrive to the Project 6 site outside of peak hours. **(DEIR at 4.13-37)**.

Dependent upon climatic conditions during construction, the maximum estimated water use for the Project 6 site is 24 acre-feet, which would be obtained from an off-site provider. Potable water would be brought in to the Project 6 site for drinking and domestic needs. During the site preparation and grading activities, water would mainly be used for soil compaction and control of fugitive dust generation. Subsequent to these construction activities, water usage would primarily be used for on-going dust suppression associated with the remaining construction of the Project. Project 6 would require a total of 20 daily water truck trips arriving on-site. Assuming that 30 percent of the water trucks would arrive on-site during the AM peak hour (7:00 AM), 6 water trucks were used in this analysis. As shown in DEIR Tables 4.13-23 and 4.13-24, the local roads would experience a maximum increase in traffic volume of 44.44 percent during the AM peak hour. This is mainly due to the existing low volume and low peak traffic conditions for these roads, which are located in rural areas and operate well below the existing capacity of 1,600 vehicles per lane per hour for a 2-lane road. Therefore, it is concluded that these roads have adequate capacity to safely accommodate the increase from water truck traffic and would have a less than significant impact on the existing traffic conditions. **(DEIR at 4.13-37, 38)**.

During construction of gen-tie lines associated with Project 6, it is anticipated that temporary, one-lane road closures would be necessary. A Project Traffic Plan would be prepared to address the temporary one-lane road closures and submitted to the County for approval prior to issuance/approval of the County Grading Permit, as indicated in Mitigation Measure TT-2.

Parking, temporary office trailers, and construction and PV equipment lay-down areas would be located entirely within the Project 6 site boundary. The construction traffic impacts would be temporary, and less than significant with mitigation. **(DEIR at 4.13-38)**.

The operational phase of Project 6 is anticipated to only generate an average of 2 additional vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a maximum of 10 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis for the water truck trips described above, the operational phase vehicle trips are considered negligible. Therefore, no additional post-construction operational analysis was conducted. The Project would not include any buildings, structures, or other operations that would require a change in the existing air traffic patterns. The Project 6 SGF would be connecting to the existing SCEAS via a 3-mile gen-tie line. Transmission line-related radio frequency interference ("RFI") is one of the indirect effects of transmission line operation. RFI is produced by the physical interactions of the electric fields generated by the transmission line. The level of RFI that occurs usually depends on the magnitude of the electric fields involved and the distance from the transmission line. It is usually associated with transmission lines of 345 kV or greater. The Project 6 transmission lines would connect to the SCEAS with a 69 kV gen-tie line (less than 345 kV) and would not adversely impact RFI effects. The operational phase of Project 6 would have a less than significant impact on the traffic and/or transportation infrastructure. **(DEIR at 4.13-38, 39)**. Project 6 would not conflict with any applicable congestion management programs during the construction or operational phases. **(DEIR at 4.13-39)**.

Air traffic would not be impacted by Project 6. Project 6 would not include any buildings, structures, or other operations that would result in a change in existing air traffic patterns. The PV modules that would be used at the Project 6 site would be non-reflective and would not pose a hazard to air traffic. Therefore, impacts would be less than significant. **(DEIR at 4.13-39)**.

No existing roads would be altered by Project 6, and Project 6 does not include design features or uses that would substantially increase any hazards. Parking, temporary office trailers, and construction and PV equipment lay-down areas would be located entirely within the Project 6 site boundary. Only temporary one-lane road closures are expected for the construction of the gen-tie Lines. A Project Traffic Plan would be prepared to address the temporary one-lane road closures and submitted to the County for approval prior to issuance/approval of the Grading Permit. Therefore, Project 6 would not result in inadequate emergency access. Project 6 is located in rural areas of Los Angeles County and would not significantly decrease the performance or safety of public transit, bicycle, or pedestrian facilities. **(DEIR at 4.13-40)**.

Project 6 impacts related to Transportation and Traffic are further reduced with the adoption of the following feasible mitigation measures:

TT-1 Prior to issuance of a grading permit, Applicant shall document and submit all required information and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by

LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.

TT-2 Prior to any construction activities and/or issuance of required encroachment permits from Los Angeles County, the Applicant shall prepare worksite traffic control plans for review and approval from LACDPW and other affected agencies for any closures, partial closures of public streets, or work within or adjacent to the road right-of-way that impacts the movement of traffic. The Plans shall be prepared in accordance with the California Manual on Uniform Traffic Control Devices (2012).

TT-3 Additionally, the County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-000798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.

TT-4 Stagger construction work shifts before or after peak traffic hours.

TT-5 Schedule truck deliveries during off peak hours.

TT-6 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips. All other trips shall be at off peak hours.

TT-7 Prior to start of construction activities, Applicant shall provide worker education encouraging carpooling and vanpooling by workers and shall provide assistance for organizing vanpools and carpools. A log will be developed to show compliance.

2.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Project 6 would have a significant impact on Utilities and Service Systems if it would: exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards; 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; 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; not 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; 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; be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or 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.

Finding:

Project 6 will not have a significant effect on the environment related to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

The construction of Project 6 and its associated gen-tie lines would generate temporary and limited wastewater as a result of on-site construction workers. The wastewater generated would be collected at the on-site mobile sanitation facilities and then transported to a nearby wastewater disposal facility. In the event that additional wastewater is generated from construction activities, water would be stored in an on-site tank system and would be disposed of at an approved wastewater treatment facility. Construction and operational wastewater will be limited in quantity and significantly below wastewater treatment requirements of Los Angeles County and the RWQCB. **(DEIR at 4.14-14)**.

All wastewater would be treated according to the treatment requirements enforced by the NPDES permit authorized by the Lahonton Regional Water Quality Control Board ("LRWQCB"). Additionally, semi-annual washing of the PV modules would generate minimal wastewater during operation. However, since the wash water would only consist of demineralized water and dust washed off of the modules, it would not need to be treated at a wastewater treatment facility. This wash water would be allowed to infiltrate into the ground and evaporate as it drips off the PV modules. The wastewater generated from maintenance workers would be collected at the on-site temporary mobile sanitation facilities and then transported to a nearby wastewater treatment facility. Project 6 would not exceed the requirements of LRWQCB, and therefore impacts would be less than significant. **(DEIR at 4.14-14)**. Likewise, construction and operation of Project 6 would not exceed the capacity of any treatment plant, and would have no impact to a wastewater system. Consequently, no new wastewater treatment facilities would need to be created and no existing facilities would need to be expanded. The maximum construction water use of Project 6 is 24 acre feet, and the maximum operational water use of Project 6 is 1.0 acre feet per year. No water system capacity problems would be created, and no new water systems or expansion of existing systems would be required. **(DEIR at 4.14-17, 18)**.

Project Site 6 currently drains from northwest to southeast; the post-development condition would maintain this flow path. A SWPPP incorporating BMPs for temporary stormwater management would be prepared and approved before the construction of Project 6 and its gen-tie lines. The final design of Project 6 would allow the pre-development runoff amount to continue to sheet flow in the post-development condition to avoid disturbance to downstream drainage structures or wildlife. The design of Project 6 would eliminate the need for new drainage facilities or expansion of existing facilities. Therefore, Project 6 would have a less than significant impact on drainage facilities. **(DEIR at 4.14-19)**.

The construction for Project 6 and the Project 6 gen-tie lines would create a short-term temporary demand for water, primarily in association with dust control. The Applicant would provide a Dust Control Plan to the County prior to the start of construction activities. The plan would detail site-specific dust control measures designed to minimize water use during construction activities, while minimizing fugitive dust emissions. Project 6's maximum construction water use is 24 ac-ft. It is estimated that the Project 6 site would have potentially historically required at least 100 ac-ft of water per year for agriculture. Thus, the maximum construction water use of Project 6 is substantially less than the best estimate of water use of 100 AFY for agriculture, which was historically the primary land use of surrounding land. Based on potential estimated historic groundwater use at the site, there may be adequate groundwater supply within the western portion of the Basin to meet Project 6's construction water needs. In addition, according to the Antelope Valley Integrated Regional Water Management Plan ("IRWMP"), groundwater is considered a reliable water source in the Antelope Valley Groundwater Basin. **(DEIR at 4.14-24).**

However, given that the Adjudication will not likely be resolved during construction of Project 6, water for Project 6 would be supplied via truck from either Homer LLC, or the City of Lancaster, both of which have provided "Will Serve" letters indicating their ability to meet the water demands of Project 6. Homer LLC would provide out-of- Basin water stored in the Antelope Valley Water Bank. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**.

As previously discussed, the potential estimated historical agricultural water usage for the Project 6 site was determined to be at least 100 AFY. Project 6's maximum construction water use is 24 ac-ft, which equates to 76 percent less than the potential estimated historical annual agricultural groundwater usage at the site. Either of the sources noted above would have sufficient reliable water supplies available to serve the Project 6 construction demands from existing water source entitlements and water resources. Therefore the impacts from water usage during construction would be less than significant. **(DEIR at 4.14-25)**.

During operations, the maximum water use for Project 6 would be 1.0 AFY, which equates to 1 percent of the historical groundwater usage at the site. A maximum of 1.0 AFY of additional water may be needed in the first 2 years of operation to establish the plants for the landscaping buffer. It is unlikely, but possible that additional water (up to 1.0 AFY) may be needed later during the operations phase for supplemental plantings if landscape vegetation expires and has to be replaced. **(DEIR at 4.14-25)**. As with the Project 6 water needs during construction, during operations Homer LLC would also provide out-of-Basin water stored in the Antelope Valley Water Bank. This option would provide a reliable source of water for operations. Potential recycled water providers are Cities of Lancaster and Palmdale, Los Angeles County Waterworks District 40, Los Angeles County Sanitation District, and Palmdale Water District. The City of Lancaster has a current supply capacity of approximately 16 million gallons per day of treated wastewater that is suitable for construction use and panel washing. **(Final EIR at p. 256)**.

Therefore, the impacts from water usage during operations would be less than significant. **(DEIR at 4.14-25)**.

Project 6 and its associated gen-tie lines do not require natural gas or propane during construction or operation; therefore there would be no system capacity problems for those utilities. Since natural gas and propane are not needed for Project 6, no new energy facilities would need to be created, and no existing facilities would need to be expanded. Project 6 may require electricity for the construction equipment and for lighting construction activities. The electricity would likely come from one of the existing SCE lines located on the west and south sides of the site. Electricity consumption during construction would be temporary, and would vary depending on the phase of construction. Overall, the construction of Project 6 would require limited electrical consumption that the existing electrical grid has capacity to serve. Therefore, Project 6 would have a less than significant impact on energy utility system capacity during construction. **(DEIR at 4.14-25)**.

Project 6 would also require electricity for ongoing maintenance operations, lighting, security systems, and other various operational needs. During daylight hours, the electricity needs for Project 6 would be supplied by Project 6's electricity generation. During non-daylight hours, the electricity needs for Project 6 would be provided by either backfeed from the electrical grid, through the proposed gen-tie, or through the existing SCE lines located on the west and south sides of the Project 6 site. Therefore, Project 6 would have a less than significant impact on energy utility system capacity. **(DEIR at 4.14-26)**.

Construction of Project 6 would require minimal ground disturbance during the facility installation. Solid waste generated from construction of Project 6 (and gentie lines) may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty non-hazardous containers, and vegetation wastes. In accordance with Title 22 Chapter 22.52, 65 percent of construction and demolition debris would be recycled. Any material that cannot be recycled would be properly disposed of at a regional disposal facility. Any defective or broken solar modules would be returned to the manufacturer for recycling. In accordance with Title 22 Chapter 20.87, the Applicant would prepare a Recycling and Reuse Plan and progress reports to implement and document the Project's recycling practices. Therefore, Project 6 impacts on landfill and solid waste disposal capacity would be less than significant. **(DEIR at 4.14-26)**. Once the SGF is installed, there would be minimal waste generated during Project 6 operations; therefore Project 6 will have a less than significant impact on landfill and solid waste disposal capacity during operations. **(DEIR at 4.14-27)**.

Non-hazardous waste generated during construction, operation, and decommissioning of Project 6 (and gen-tie lines) would be transferred by licensed waste hauling contractors and recycled or disposed of in compliance with local and state regulations. Hazardous wastes would be shipped offsite and treated or disposed in accordance with all applicable laws and regulations for hazardous waste management. The construction contractor would prepare a Project-specific hazardous materials management and hazardous waste management program for Project 6. Project 6 would have no impact relative to compliance with existing federal or state regulations pertaining to solid waste, because Project 6 would be required to comply with all relevant regulations during construction, operation and decommissioning. **(DEIR at 4.14-27)**.

SECTION 3.0 FINDINGS REGARDING CUMULATIVE ENVIRONMENTAL EFFECTS WHICH ARE NOT SIGNIFICANT OR WHICH HAVE BEEN MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

Pursuant to Section 15130 of the CEQA Guidelines, the following findings and statements of fact identify potentially significant cumulative impacts and Project 6's incremental contribution to the impacts discussed in the Final EIR, in the context of the other five Projects and other cumulative projects. For the following environmental resource areas, Project 6's incremental effect is not cumulatively considerable, and no cumulatively significant impact will occur.

3.1 AESTHETICS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Aesthetics.

Finding:

Changes or alterations have been required in, or incorporated into Project 6, which mitigate or avoid significant environmental effects. Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Aesthetics.

Facts Supporting the Finding:

Individually, with mitigation, each of the six proposed SGF Projects can each be expected to have a less than significant impact on aesthetic resources. The Project sites comprise 987.1 acres, or 0.6 percent of the total area within the 5 mile radius. Within the 5-mile radius area, there are 20,909 acres of development listed by individual projects, as shown in DEIR Table 3-7. These development projects, including the Applicant's Projects, comprise 12.6 percent of the area identified in DEIR Figure 3-5 and include solar projects, commercial projects, and residential projects.

From elevated viewpoints, the western Antelope Valley appears as a mosaic of agricultural lands, suburban developments, and open land. From a distance, the proposed SGFs would not appear dissimilar to agricultural fields or existing PV facilities in shape and size. The other solar and real estate developments proposed for the western Antelope Valley would not appear dissimilar to existing land use patterns. From level viewpoints, such as those along local roads, solar or residential/commercial developments would not be prominent unless the observer is directly adjacent to the facility. Because of the flat nature of the Antelope Valley landscape, developments would quickly become less prominent as the viewer travels away from them. In addition, the scenic character on the valley floor is generally low. Existing commercial, residential, and energy developments (including substations, high-voltage transmission lines, distribution lines, and generation facilities) are scattered throughout the valley.

A 12.6 percent level of increase in development within 5 miles of each of the Project sites is not anticipated to be significant from elevated or level viewpoints, because the proposed developments would appear similar to existing developments in the Antelope Valley, and cover only a very small portion of the land within 5 miles of each proposed Project site. Views of open desert lands would still exist, and the flatness of the landscape would limit the prominence of new developments with increasing distance.

The proposed Projects and other proposed projects within the cumulative impacts study area would be individually required to comply with the Los Angeles County General Plan goals and policies, and the Antelope Valley Area Plan policies, as well as applicable ordinances such as the Los Angeles County Rural Outdoor Lighting District Ordinance, as they are applicable to aesthetic resources, as identified in Section 4.1.3 of the DEIR. Any cumulative aesthetic impacts would be reduced to a level that is less than significant with mitigation by application of these regulations, and mitigation measures A-1 to A-5. **(DEIR at 4.1-114 to 4.1-115)**.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Potential Effect:

Cumulative impacts to Agriculture and Forestry Resources could occur in the event that Project 6, in conjunction with the six proposed SGF Projects and other cumulative projects results in the area results in a cumulatively significant loss of Important Farmlands or Williamson Act contracted lands.

Finding:

Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Agriculture and Forestry Resources. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable law ordinances regulations and standards.

Projects 1 – 6 are located in a region with significant agricultural uses. However, the Antelope Valley has been historically and is currently limited by water costs and climate conditions. Cumulatively, the Projects would not develop land classified as Prime Farmland or Farmland of Statewide Importance. Project 4 is the only site that currently contains land designated as Prime Farmland and of Statewide Importance. As mentioned above, the DOC is in process of reclassifying Project 4 land currently mapped as Prime Farmland and Farmland of Statewide Importance to Grazing Land on the 2012 edition of the Important Farmland Map for Los Angeles County. The Projects would not be expected to contribute to the overall trend of conversion of agricultural lands to other uses in the Antelope Valley when considered together with other

potential cumulative projects in the area. That said, it is contemplated that at the end of the anticipated 35-year life of Projects 1-6, the associated properties could be returned to agricultural use. The Projects' incremental contribution to cumulative agricultural impacts is considered less than significant. **(DEIR at 4.2-9)**.

3.3 AIR QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Air Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 6, which mitigate or avoid significant environmental effects to Air Quality. Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Air Quality.

Facts Supporting the Finding:

Twenty-nine related projects have been identified within the proposed Projects' vicinity; locations are listed in DEIR Figure 4.3-2, "Cumulative Projects in the Region". Of these 29 related projects, there are a number of related projects that have not yet been built or are currently under construction. Since the Applicant has no control over the timing or sequencing of the related projects, and the level of emissions that would be generated by the related projects is uncertain, it is infeasible and speculative to prepare a quantitative analysis to ascertain daily construction emissions that would occur under a worst-case scenario of all 29 related projects being constructed concurrently with the Applicant's six Projects.

For this reason, the AVAQMD was consulted to assess the cumulative impact resulting only from the Applicant's six Projects. The County's EIR consultant (Tetra Tech) met with AVAQMD officials and technical staff at the AVAQMD's office on May 29, 2012, and discussed the proper cumulative Air Quality analysis methodology for the Project pursuant to CEQA. **(DEIR at 4.3-48)**. AVAQMD determined that cumulative impacts from the Applicant's six Projects should be cumulatively quantified based on size, construction equipment per phase, and construction phase duration, and that the related projects should only be qualitatively discussed within the EIR. The cumulative Air Quality analysis was performed based on the direction from AVAQMD, and included the analysis of concurrent construction and operation emissions sources on any one maximum construction day, air dispersion modeling method, and risk assessment method. **(DEIR at 4.3-48)**.

As previously discussed in the analyses above (DEIR Table 4.3-13, "Peak Annual Construction Emissions"; DEIR Table 4.3-20, "Peak Annual Operation Emissions"; and DEIR Table 4.3-22, "Concurrent Health Risk Assessment"), emissions from overlapping construction phases of the

Applicant's six projects would not exceed the AVAQMD thresholds on any maximum day or year during construction or operations. **(DEIR 4.3-30; 4.3-49)**.

With respect to the Project's construction-period air quality emissions and cumulative Basin-wide conditions, the AVAQMD has developed strategies to reduce criteria pollutant emissions outlined in the Air Quality Management Plan ("AQMP") pursuant to CAA mandates. As such, Project 6 would comply with AVAQMD Rule 403 requirements, and implement all feasible mitigation measures. In addition, Project 6 would comply with adopted AQMP emissions control measures. Per AVAQMD rules and mandates and the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects Basin-wide, which would include each of the related projects mentioned below. **(DEIR 4.3-49)**.

By applying AVAQMD's cumulative air quality impact methodology, implementation of Projects 1 – 6 would not result in an addition of pollutants, such that considerable cumulative impacts in conjunction with related projects in the region would occur. Therefore, the emissions of nonattainment pollutants and precursors generated cumulatively by Projects 1 – 6 would be less than significant. Projects are deemed inconsistent with air quality plans when they result in population and/or employment growth that exceeds growth estimates in the applicable air quality plan. The SGF sites would not conflict with or obstruct implementation of the applicable air quality plan, which in this case is the Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area). The Ozone Attainment Plan relies upon future year emission inventories consistent with California Air Resource Board ("CARB") and the adopted General Plan growth projections. As the proposed Projects are not part of an ongoing regulatory program, the AVAQMD recommends Project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed above, peak daily emissions of operation-related pollutants would not exceed AVAQMD significance thresholds.

The combined Projects' emission estimates state that while Projects 1 – 6 would generate air emissions during construction and a minimal amount of GHG emissions during operations, the Projects' incremental contribution, with mitigation, to cumulative air quality impacts do not exceed any air quality significance thresholds and would comply with the applicable AVAQMD AQMP. It should be noted that solar energy provided by the Projects is a much cleaner source of energy than traditional sources used for the generation of electricity, such as the burning of coal, fuel oil, or natural gas. Furthermore, since the percentage of GHG emissions generated by Projects 1 – 6 is so small; Projects 1 – 6 would provide a *de minimis* contribution to significant cumulative impacts caused by other projects in the region (as further discussed in DEIR Section 4.7, Climate Change and Greenhouse Gas). The Projects' emissions of non-attainment pollutants and precursors generated during operations with mitigation would not exceed the AVAQMD Project-level thresholds and are less than significant. As a result, Project-level emissions would not result in a cumulatively considerable contribution, such that results in an increase in air pollutant emissions above those assumed in the regional AQMP. **(DEIR at 4.3-52)**.

3.4 BIOLOGICAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Biological Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 6, which mitigate or avoid significant environmental effects to Biological Resources. Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Biological Resources.

Facts Supporting the Finding:

The total area included in the map in DEIR Figure 3-17 showing a 5.0 mile radius outward from each of the Project 1 – 6 solar sites comprises 165,349 acres. Solar development in the area is 8,086 acres (4.9 percent of the 165,349 acres shown in DEIR Figure 3-17). The Silverado Projects cover 987 acres (only 0.6 percent of the total area). Open space and wildlife mitigation lands would be acquired and preserved in perpetuity for Projects 1 – 6. Since the mitigation lands are intended to comprise higher quality wildlife habitat than those impacted by the Projects, impacts will be mitigated. The permanent nature of the land mitigation and preservation program to be implemented would assure that these new wildlife habitat mitigation lands would always be maintained and enhanced for wildlife values. Therefore, cumulative impacts from the Project would be less than significant. **(DEIR at 4.4-71)**.

3.5 CULTURAL RESOURCES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Cultural Resources.

Finding:

Changes or alterations have been required in, or incorporated into Project 6, which mitigate or avoid significant environmental effects to Cultural Resources. Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Cultural Resources.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. As described above under impacts specific to Project 6, impacts related to cultural resources would be mitigated to less than significant levels, since the CRHR eligible resources in the area would be avoided. Because impacts to cultural resources would be mitigated to less than significant through avoidance, Projects 1 – 6 would not result in an incremental increase in effects on cultural resources when combined with the other 29 projects. Therefore, no significant cumulative impacts would be expected to occur. **(DEIR at 4.5-35)**.

3.6 GEOLOGY AND SOILS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Geology and Soils.

Finding:

Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Geology and Soils. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time.

It is assumed that construction of all of the cumulative projects would comply with all applicable laws, ordinances, regulations and standards, and that geotechnical studies would be performed to assess and mitigate any geotechnical hazards associated with them; therefore, the cumulative projects would not expose people or structures to potential substantial adverse effects. It is also assumed that the cumulative projects would comply with all applicable erosion control and stormwater management laws, ordinances, regulations and standards, therefore the construction of the cumulative projects would not contribute to cumulative soil erosion or loss of topsoil.

Proposed Projects 1 – 6 would not expose the public to adverse effects from strong seismic ground shaking because the Projects would be contained within a secure fenced area at each location and not open to the public. The potential for injury to workers is also quite low as they will not be on-site the majority of the time, and the likelihood that a seismic event would occur

when workers are present is quite small. The Projects would also not result in significant soil erosion because the design and construction of the Projects' facilities would comply with all applicable building codes and standards established by regulatory agencies, including Los Angeles County Department of Public Works and the CBC. The proposed Projects 1 – 6 would therefore not contribute incrementally to cumulative impacts resulting from other development within the 5-mile radius. **(DEIR at 4.6-27)**.

3.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Greenhouse Gas Emissions and Climate Change.

Finding:

Changes or alterations have been required in, or incorporated into Project 6, which mitigate or avoid significant environmental effects to Greenhouse Gas Emissions and Climate Change. Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Greenhouse Gas Emissions and Climate Change.

Facts Supporting the Finding:

As defined in CEQA Guidelines Section 15355, a "cumulative impact" is an environmental effect that may result from the combination of two or more environmental effects associated with a proposed project, or from the combination of one or more project environmental effects with related environmental effects caused by other closely related projects. However, in the case of global climate change, the proximity of the Projects to other GHG-generating activities is not directly relevant to the determination of a cumulative impact. Although AB 32 sets statewide targets for future GHG emissions, the scoping plan and other implementing tools of the law are clear that the reductions are not expected to occur uniformly from all sources or sectors. The conclusions related specifically to Project 6, above, highlights the manner by which the proposed Projects intend to meet many of these strategies.

Numerous options exist for project developers to reduce their contribution to city-, county-, and state-wide GHG emissions, while helping to meet the region's future housing, jobs, and infrastructure needs. However, it is not possible at this time to accurately quantify GHG emissions expected from the related Projects or the GHG reductions anticipated from the above-listed strategies. There is no certain basis for concluding that an emissions increase resulting from the Projects and the related Projects could cause a measurable increase in global GHG emissions sufficient to force global climate change due to the complex physical, chemical and atmospheric mechanisms involved in global climate change.

In addition, the emissions models used for Project-level evaluations do not fully reflect improvements in technology and other reductions in GHG emissions that are likely to occur

pursuant to state regulations, such as AB 1493, SB 1368, AB 32, and Executive Order S-3-5, as well as future federal and/or state regulations. Therefore, it is not possible or meaningful to calculate emissions from each of the identified related Projects and compare that with a numeric threshold or reduction target. Projects 1-6 would be consistent with the state's goals in helping the state meet the RPS (DEIR Table 4.7-17), resulting in a GHG emission profile that is below established thresholds, and include implementation of Mitigation Measures GHG-1 to GHG-5. Therefore, the Projects do not contribute considerably to cumulatively significant global climate change impacts. **(DEIR at 4.7-31)**.

3.8 HAZARDS AND HAZARDOUS MATERIALS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Hazards and Hazardous Materials.

Finding:

Changes or alterations have been required in, or incorporated into Project 6, which mitigate or avoid significant environmental effects to Hazards and Hazardous Materials. Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Hazards and Hazardous Materials.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (see Table 3-7). For the purposes of this cumulative analysis, the worst case scenario is assumed, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all laws, ordinances, regulations and standards. It is assumed that for each of the cumulative projects, Hazardous Materials Management Plans and Hazardous Waste Management Plans would be implemented, a SWPPP would be prepared, and all applicable environmental due diligence would be conducted (i.e., a Phase I ESA). If any of the cumulative projects are within an airport land use plan or airport influence area, the projects would obtain the appropriate authorizations and permitting from the respective Airport Land Use Commission. The cumulative projects would have a less than significant impact with mitigation to hazards and hazardous materials.

Based on the land uses in the surrounding areas (primarily agricultural) and the limited amount and type of hazardous materials to be used as part of the proposed Projects 1 – 6, no significant incremental cumulative impacts associated with environmental safety are expected to occur as a result of the construction and operation of the proposed Projects 1 – 6. Regulations implemented by the Department of Toxic Substance Control ("DTSC"), LACSD, LACFD, and Cal/OSHA would require similar measures be applied to other developments in the region. Therefore,

Projects 1 – 6 are not expected to result in significant incremental cumulative impacts related to hazards and hazardous materials. **(DEIR at 4.8-19 to 4.8-20)**.

3.9 HYDROLOGY AND WATER QUALITY

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Hydrology and Water Quality.

Finding:

Changes or alterations have been required in, or incorporated into Project 6, which mitigate or avoid significant environmental effects to Hydrology and Water Quality. Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Hydrology and Water Quality.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Project sites, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-3). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws ordinances regulations and standards. Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. As shown in DEIR Table 3-7 and DEIR Figure 3-17, the proposed Projects would entail approximately 0.60 percent of all proposed projects within a 5-mile radius.

All cumulative projects that may be approved and implemented would also assess potential impacts related to hydrology and water quality. The proposed Projects 1 – 6 were found to have less than significant impacts related to erosion, flooding, debris deposition, and stormwater quality, with no off-site impacts. Additionally, the proposed Projects would not result in any significant or unavoidable impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5-mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative impacts associated with other projects in the Projects' region. **(DEIR at 4.9-45)**.

3.10 LAND USE AND PLANNING

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Land Use and Planning.

Finding:

Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Land Use and Planning. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6. The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations, and standards. **(DEIR at 4.10-43)**.

Projects located within 5 miles of the proposed Projects entail the geographic extent under consideration of cumulative impacts. The proposed Projects are six of several proposed renewable development projects that would impact existing and proposed land uses within the general Project area. Similar potential impacts can result from these projects as from the Projects with respect to consistency with the subject general plan land use plans and policies, impacts to compatibility with surrounding land uses, and regulatory compliance with zoning ordinances. All cumulative projects that may be approved and implemented would also assess potential impacts related to land use and planning. The proposed Projects were found to have less than significant impacts related to compliance with County zoning, consistency with the County General Plan Land Use Plan intent and applicable land use conformance criteria, dividing an existing community, and with no significant impacts to the adjacent City of Lancaster. Additionally, the proposed Projects would not result in any significant or unavoidable land use impacts and represent a small fraction of the total amount of lands affected by renewable projects and foreseeable projects within a 5 mile radius of the Projects. Therefore, the proposed Projects would not be expected to significantly contribute to potential cumulative land use related impacts associated with other projects in the region. **(DEIR at 4.10-44)**.

3.11 NOISE

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative Noise impacts.

Finding:

Changes or alterations have been required in, or incorporated into Project 6, which mitigate or avoid significant Noise impacts. Project 6, in conjunction with other development projects, will not result in a cumulatively significant Noise impact.

Facts Supporting the Finding:

Two non-Applicant projects identified have the potential to result in cumulative construction noise impacts, due to the projects being located in relatively close proximity to the proposed Projects, but not close enough to result in vibration impacts. The Western Antelope Dry Ranch project (CUP 11-07) is located approximately 1-mile north of Project 2, and the High Desert LLC (CUP 10-03) project is located approximately 1-mile north of Project 4. These distances are close enough that construction noise could propagate out to distances near the Applicant's Projects, but are not close enough to potentially result in vibration impacts. The time period of construction for these two projects is unknown, but if construction were to overlap with construction of the proposed Projects, there is the potential for increased temporary noise levels at residences; however, none of the noise sensitive receptors that are located in close proximity to Project 4 are also located in close proximity to Antelope Solar 1 or Antelope Solar Farm projects. Therefore, sound levels from construction of the Projects would only be minimally increased (less than 1-2 dBA), or not at all, by simultaneous construction. Therefore, overall cumulative impacts of the proposed Projects 1 – 6 would be less than significant with implementation of Mitigation Measures N-1 to N-9. **(DEIR at 4.11-56)**.

3.12 PUBLIC SERVICES

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Public Services.

Finding:

Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Public Services. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the proposed Projects amounting to 20,909 acres of development including Projects 1 – 6 (see DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, regulations and standards. It is assumed that for each of the cumulative projects,

worksite traffic control plans, permits, and coordination with County departments regarding potential construction impacts would be implemented. **(DEIR at 4.12-16)**.

Projects 1 – 6 would not cause effects to result in significant demands to fire response times. Projects 1 – 6 would be designed with appropriate fire protection considerations, and would also result in less than significant impacts to staffing and response times. Furthermore, Projects 1 – 6 would be required to provide taxes to the County that are designed to address cumulative fire department needs associated with new and existing developments. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes and fees to the County to provide for their potential increase to LACFD fire protection service demands (LACFD 2009). Additionally, all development in the area is subject to review and approval by the Fire Department. This ensures that all projects contain appropriate controls to reduce demand on the fire department. As a result, Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative fire protection impacts. **(DEIR at 4.12-17)**.

Projects 1 – 6 would not cause effects to result in significant demands to sheriff staffing or response times. Projects 1 – 6 would also implement site security control, including 24-hour remotely monitored video cameras for security monitoring to prevent potential theft and vandalism activities. Additionally, a portion of Projects 1 – 6 taxes levied would be allocated to sheriff services. Other developments in the vicinity of Projects 1 – 6 would also be required to pay taxes that would be allocated to sheriff services. As a result, construction and operation of Projects 1 – 6 would be anticipated to result in less than significant incremental contributions to cumulative sheriff protection impacts. Therefore, cumulative impacts associated with sheriff services would be less than significant. **(DEIR at 4.12-17)**.

Because development of Projects 1-6 will not induce population growth, no direct or cumulative impacts to schools, parks, libraries or other public facilities will occur. **(DEIR at 4.12-15; 4.12-16)**.

3.13 TRANSPORTATION AND TRAFFIC

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Transportation and Traffic.

Finding:

Changes or alterations have been required in, or incorporated into Project 6, which mitigate or avoid significant impacts to Transportation and Traffic. Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Transportation and Traffic.

Facts Supporting the Finding:

Cumulative impacts for transportation and traffic are the combined effect of Projects 1 – 6 with the impacts of other past, present, and reasonably foreseeable future projects (other projects). This Cumulative Impacts discussion addresses the cumulative impacts of the Applicant's Projects 1 – 6 and the other projects within a geographic radius of 5-mile radius of the Projects (Project Study Area), which could potentially coincide with the expected construction schedule of the Applicant's Projects. Based on evaluation of the Project Study Area and available data from Los Angeles County, there are 29 other projects that have the potential to contribute additional traffic volume within the vicinity of Projects 1-6.

Evaluation of the cumulative impacts within the Project Study Area was focused on the construction-phase traffic for Projects 1-6 and other projects within a 5-mile radius. As previously stated in the individual conclusions for Project 6 above, the operational phase for each Project is anticipated to only generate a maximum of 4 vehicle trips during the AM and PM peak hours on a quarterly or as-needed basis with a maximum of 12 additional trips, which would only occur when panel washing operations are being conducted. Based on the traffic analysis contained in the DEIR, the operational phase vehicle trips/traffic for the Projects are considered negligible and would not result in a significant cumulative impact on the traffic and/or transportation infrastructure in the Project Study Area. **(DEIR at 4.13-41 to 4.13-43)**.

3.14 UTILITIES AND SERVICE SYSTEMS

Potential Effect:

Other land development projects proposed or under construction in the area, in combination with the six proposed SGF Projects (including Project 6), have the potential to result in cumulative impacts to Utilities and Service Systems.

Finding:

Project 6, in conjunction with other development projects, will not result in a cumulatively significant impact to Utilities and Service Systems. No mitigation is required.

Facts Supporting the Finding:

There are 29 cumulative projects within a 5-mile radius of the Projects, amounting to 20,909 acres of development including Projects 1 – 6 (DEIR Table 3-7). The cumulative analysis assumed a worst-case scenario, i.e., all cumulative projects would be constructed at the same time. It is also assumed that all cumulative projects would comply with all applicable laws, ordinances, and regulations. Construction and operation of the cumulative projects would result in less than significant impacts to public facilities, which include electricity, gas, wastewater, and solid waste services. During construction, all cumulative projects would follow required measures to prevent construction interference to utility services, and would comply with recycling requirements to minimize solid waste disposal at solid waste facilities. During operation, the solar and wind generation projects would provide electricity, and would generate

minimal amounts of solid waste. During operation, the non-solar/non-wind commercial and residential development projects would generate solid waste as would be expected from these residential and commercial uses; it is assumed that these project proponents have planned for and mitigated for the additional solid waste generation as appropriate.

The proposed Projects 1 – 6 would provide their own electricity for operational needs, no natural gas would be required for their operations, little wastewater (from panel washing) would be generated as part of the operations process, and very little solid waste would be generated. As a result, the total cumulative impacts to utility services would be less than significant, and the incremental contribution of Projects 1 – 6 to cumulative impacts related to utility services would be less than significant. Furthermore, because the Applicant has committed to using out of Basin water during construction and operations, Projects 1 – 6 would not result in a cumulatively considerable contribution to water supply impacts in the Basin, and would have no significant cumulative effect on water supply. **(DEIR at 4.14-28)**.

SECTION 4.0 FINDINGS REGARDING PROJECT ALTERNATIVES

These Findings and Statements of Fact regarding project alternatives and certain mitigation measures identified in the Final EIR are set forth to comply with Section 21002 of the Public Resources Code and Sections 15091(a)(3) and 15126.6 of the CEQA Guidelines. Five alternatives to the proposed Project (consisting of Projects 1-6) described in the Draft EIR were analyzed and considered as follows: 1) No Project Alternative; 2) Lower Intensity Projects; 3) Select Other Project Sites Alternative; 4) Rooftop Solar Generation Alternative; and 5) Wind Energy Generation Alternative. These alternatives constitute a reasonable range of alternatives necessary to permit a reasoned choice. For the reasons set forth below, Alternatives 1-5 are rejected as infeasible for the specific economic, legal, social, technological, or other considerations set forth below.

4.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

Description:

Under the No Project Alternative, Project sites 1-6 would remain in their present condition with site conditions (i.e., fallow agricultural land) as they currently exist.

Finding:

The No Project Alternative is rejected as infeasible because it fails to meet the Project goals and objectives, and would not contribute to the State's ability to meet its near- and long-term renewable energy generation goals and objectives.

Facts Supporting the Finding:

The proposed Projects 1 – 6 would not be approved or implemented under the No Project Alternative. The potential environmental impacts and benefits of the proposed Projects would not occur as a direct consequence of implementation under the No Project Alternative. The No Project Alternative would involve taking no action to generate 172 MW of clean, renewable electrical power utilizing solar PV technology and to integrate the electrical output of the

Projects into the electrical grid. This alternative would not allow one of the primary purposes of the proposed Projects which is to increase the output of renewable energy in support of the RPS, such that the State of California may meet its current and planned goals for increasing renewable generation at reasonable market rates.

The No Project Alternative assumes that the sites will remain as they currently exist (primarily fallow agricultural land) and no environmental impacts would result. In summary, the No Project Alternative is provided for comparative purposes to the proposed Projects 1 – 6. This alternative is incapable of meeting the stated goals and objectives of the Projects to provide 172 MW of renewable electric energy to utility providers, and does not contribute to the state's ability to meet its near-term and long-term renewable energy generation goals and objectives. **(DEIR 5-1 to 5-2)**.

4.2 ALTERNATIVE 2: LOWER INTENSITY PROJECTS

Description:

Under the Lower Intensity Projects Alternative, fewer than six sites would be developed, and the smaller projects would be developed in a size and configuration that would result in generation of fewer than 172 MW of electricity.

Finding:

The Lower Intensity Projects Alternative is rejected as infeasible because it partially fails to accomplish the goals of the proposed Projects, which are to provide 172 MW of clean, renewable electric energy using solar PV technology, and to deliver the electric output on a wholesale basis to utility providers.

Facts Supporting the Finding:

Projects 1-6 are designed to meet the increasing demand for clean, renewable electrical power. Any reduction in the size of the effort results in a similar potential reduction in the reliance on foreign sources of fuel, the diversification of energy portfolios, the contribution to the reduction of GHG emissions, and the generation of "green" jobs. It would also potentially reduce the contribution to the much needed on-peak power to the electrical grid in California.

The opportunity to develop solar power in Los Angeles County has a limited timeframe because the utility companies, which purchase the power, would purchase power from another entity if the proposed Projects are not completed in a timely manner. If Los Angeles County does not approve the six viable SGFs proposed here, the opportunity to contribute to the competitive solar generation business in the County will be further lost to other projects. The proposed Projects are well-positioned to compete in the industry, are comparatively environmentally superior to most other locations, and have good positions for PPAs and interconnection agreements. Additionally, any reduction of the megawatts produced from these Projects would further limit the County's contribution to the State's renewable energy production goals. These 5 to 52 MW Projects meet

the utility industry needs for small projects, and any reduction of the respective Projects' size would jeopardize the success of the Projects. **(DEIR at 5-2)**.

4.3 ALTERNATIVE 3: SELECT OTHER PROJECT SITES ALTERNATIVE

Description:

Under the Select Other Project Sites Alternative, other properties could potentially be used for the six Project sites.

Finding:

The Select Other Project Sites Alternative is rejected, because this alternative would have the same or greater impacts to the environment as Projects 1-6, which can all be mitigated to below a level of significance.

Facts Supporting the Finding:

One key objective for the Project Applicant was to locate the Projects in an area with the following characteristics: (1) adequate solar radiation; (2) close proximity to interconnection locations for each solar site; (3) project sites with landowners who are willing to sell large enough parcels of land for solar generation at market price; (4) lack of threatened and/or endangered biological species on the site; (5) lack of nearby sensitive receptors or land uses to minimize potential conflicts with development (6) relatively flat sites that have previously been disturbed to minimize disturbance to native habitat and to minimize the need for site grading; (7) existing access to accommodate construction workforce needs; and (8) access to nearby workforce to minimize traffic and socioeconomic impacts. The Applicant performed in-depth analyses of over 10,000 acres of land in the Western Antelope Valley, as shown in DEIR Figure 6-1. Of the 10,000 acres screened, only ten percent met the criteria listed above.

The six Project sites selected and proposed by the Applicant are the most viable sites to develop solar electricity generation with minimal environmental impacts. These sites were also chosen for development based on interconnection capacity and requirements placed on the Applicant by the utility providers. Selection of other alternative sites would have the same or greater impacts to the environment since the present Projects are the result of a long and intense effort by the Applicant to find and acquire the most suitable sites according to the criteria given above. **(DEIR at 1-6; 5-3)**. Furthermore, the environmental impacts for Projects 1-6 can all be mitigated to below a level of significance.

4.4 ALTERNATIVE 4: ROOFTOP SOLAR GENERATION

Description:

Under the Rooftop Solar Generation Alternative, solar photovoltaic panels would be installed on private rooftops.

Finding:

The Rooftop Solar Generation Alternative is rejected as infeasible, because the Project Applicant does not have the ability to install solar panels on private rooftops.

Facts Supporting the Finding:

For rooftop solar to be a viable alternative to the proposed Projects it would need to provide 172 MW of electricity into the local grid. Assuming one residential installation can produce 25 kilowatts of electricity, a total of 6,880 residential installations would be needed to produce 172 MW of electricity. The Applicant does not have the ability to install solar panels on private rooftops; therefore this alternative is not feasible for the Applicant. **(DEIR at 5-3)**.

4.5 ALTERNATIVE 5: WIND ENERGY GENERATION

Description:

Under the Wind Energy Generation Alternative, electricity would be generated through the use of wind turbines.

Finding:

The Wind Energy Generation Alternative is rejected as infeasible, because the type of geographical location that is suitable for a wind farm is not available within the vicinity.

Facts Supporting the Finding:

For wind energy generation to be a reasonable alternative to the proposed Projects and meet the purpose and need of the proposed Projects, it would need to provide 172 MW of electricity into the local grid; and to be sited on previously disturbed land that utilizes existing electrical distribution facilities, ROWs, roads, and other existing infrastructure where feasible to minimize the need for new electrical support facilities. The area required for construction and operation of a 172 MW wind farm would require a much more specific type of geographical location than the Projects to provide adequate wind; a feasible project area of the nature required for wind electricity production is not readily available within the area of analysis for the proposed Projects. For this reason, this alternative is infeasible. **(DEIR at 5-3)**.

SECTION 5.0 FINDINDS REGARDING THE MITIGATION MONITORING AND REPORTING PROGRAM ("MMRP")

Pursuant to Section 21081.6 of the Public Resources Code, the Commission, in adopting these Findings, also adopts the MMRP for the Silverado Power West Los Angeles Project. This Program is designed to ensure that, during Project implementation, the County and other responsible parties will comply with the mitigation measures adopted in these Findings.

The Commission hereby finds that the MMRP, which is incorporated herein by reference and attached as Exhibit A to these Findings, meets the requirements of Public Resources Code Section 21081.6 by providing for the implementation and monitoring of Project conditions intended to mitigate potential environmental effects of the Project.

SECTION 6.0 CEQA GUIDELINES SECTION 15091 AND 15092 FINDINGS

Based on the foregoing findings and the information contained in the administrative record, the Commission has made one or more of the following findings with respect to each of the significant effects of the Project:

A. Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental effects on the environment.

B. Those changes or alterations are within the responsibility and jurisdiction of another public agency and such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Based on the foregoing findings and the information contained in the administrative record, and as conditioned by the foregoing:

A. All significant effects on the environment due to the Project have been eliminated or substantially lessened where feasible.

SECTION 7.0 CEQA GUIDELINES SECTION 15084(D)(3) AND 15084(D)(4) FINDINGS

The County has relied on Sections 15084(d)(3) of the State CEQA guidelines, which allow acceptance of working drafts prepared by the Applicant, a consultant retained by the Applicant, or any other person. The County has also relied upon Section 15084(d)(4), which allows the Draft EIR to be prepared directly by, or under contract by the lead agency. The County has reviewed and edited as necessary the submitted drafts to reflect the County's own independent judgment, including reliance on County technical personnel from other departments.

SECTION 8.0 PUBLIC RESOURCES CODE SECTION 21082.1(C) FINDINGS

Pursuant to Public Resources Code Section 21082.1(c), the Commission hereby finds that the lead agency has independently reviewed and analyzed the Final EIR, and that the Final EIR reflects the independent judgment of the lead agency.

SECTION 9.0 NATURE OF FINDINGS

Any finding made by this Commission shall be deemed made, regardless of where it appears in this document. All of the language included in this document constitutes findings by this Commission, whether or not any particular sentence or clause includes a statement to that effect. This Commission intends that these Findings be considered as an integrated whole and, whether

or not any part of these Findings fail to cross reference or incorporate by reference any other part of these findings, that any finding required or committed to be made by this Commission with respect to any particular subject matter of the Final EIR, shall be deemed to be made if it appears in any portion of these Findings.

SECTION 10.0 RELIANCE ON RECORD

Each and all of the findings and determinations contained herein are based on the competent and substantial evidence, both oral and written, contained in the entire administrative record relating to the Silverado Power West Los Angeles County Project. The findings and determinations constitute the independent findings and determinations of this Commission in all respects, and are fully and completely supported by substantial evidence in the record as a whole.

SECTION 11.0 RELATIONSHIP OF FINDINGS TO EIR

The County finds and declares that substantial evidence for each and every finding made herein is contained in the EIR or is in the record of proceedings in the matter.

SECTION 12.0 CUSTODIAN OF RECORDS

The custodian of the documents or other material which constitute the record of proceedings upon which the County's decision is based is the Los Angeles County Department of Regional Planning located at 320 West Temple Street, Los Angeles, California 90012.

EXHIBIT A
MITIGATION MONITORING AND REPORTING PROGRAM
(“MMRP”)

CEQA requires a Mitigation Monitoring and Reporting Program (MMRP) for projects where mitigation measures are a condition of project approval and development. The Draft EIR prepared for the Silverado Power West, Los Angeles County Projects identified mitigation measures, where appropriate, to avoid or substantially reduce the environmental impacts associated with the Project. This MMRP is designed to monitor the implementation of those mitigation measures. Accordingly, this MMRP has been prepared in compliance with the requirements of CEQA Section 21081.6 and CEQA Guidelines Section 15097.

This section lists each of the proposed Project Design Features (PDFs) and required Mitigation Measures (MMs) and identifies the corresponding action required for proof of compliance, the mitigation timing, the party responsible for implementation, and the monitoring agency or party responsible for ensuring each measure is adequately implemented.

Mitigation Monitoring and Reporting Program
Silverado Power West, Los Angeles County Projects
Project Nos. R2011-00833, 00798, 00799, 00807, 00801, 00805
March 2014

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.1 AESTHETICS				
A-1 A Fugitive Dust Control Plan to minimize dust (visual pollution) shall be prepared and implemented.	A. Submit Plan to AVAQMD for review and approval	Prior to any ground disturbance activities	Applicant/Construction Manager	LACDRP AVAQMD
	B. Maintain log demonstrating compliance. Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD
A-2 The Project site shall be maintained free of debris, trash, and waste during construction.	Site inspection	During construction	Applicant	LACDRP
A-3 The Project site shall be visually screened or partially screened during construction by fencing.	A. Submit Site Plans for review and approval	Prior to issuance of applicable building permit	Applicant	LACDRP
	B. Site inspection as needed	During construction	Applicant	LACDRP
A-4 A landscape plan shall be developed for each Project prior to Project construction that shows the detail of a 10-foot wide screening vegetation buffer intended to screen or partially screen the Project visually from area residents or travelers on nearby roadways.	A. Submit landscape plan for review and approval. The landscape plan must be approved prior to grading or building permit.	Prior to 1st grading or building permit whichever comes first for each project.	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
	B. Implement approved landscape plan	Prior to first energization approval by LADPW B & S	Applicant	LACDRP/LACFD – support/referral Approval of landscape plan
A-5 All lighting shall comply with applicable provisions of the Los Angeles County Outdoor Lighting District Ordinance. Lights shall be limited to types allowed by the ordinance, installed below maximum allowed heights, pointed downwards and shielded to minimize light trespass, and mounted on essential infrastructure rather than on separate light poles	Submit final lighting plan for review and approval	Prior to issuance of building permit(s)	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
except where poles are required by regulation or by governing agency. Lighting will comply with the hours of operation requirements in the ordinance, and utilize automatic control devices to comply with time limits except where permitted by Los Angeles County. Lighting will be maintained in good repair at all times.				
5.2 AGRICULTURE AND FORESTRY				
No mitigation measures are required for Agriculture and Forestry.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.3 AIR QUALITY				
AQ-1 Water active sites at least twice daily (locations where soil disturbance is to occur would be thoroughly watered before earthmoving) during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVQMD
AQ-2 All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard in accordance with the requirements of CVC Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-3 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-4 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
AQ-5 The off-road construction equipment drivers shall have documented training in operating the equipment efficiently, taking into account ways to reduce the hours of operation of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-6 Traffic speeds on all unpaved roads shall be maintained at 15 mph or less.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-7 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Submit Transportation Demand Management program for review and approval	Prior to issuance of building permits	Applicant/Construction Manager	LACDRP LACDPW support and referral for trip reduction determination

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
AQ-8 During array area preparation, mowing shall be used instead of grading and/or disking, and shall be limited to no more than 3.5 acres per day per site to further reduce dust emissions during construction.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-9 All interior roads shall use long-lasting non-toxic chemical soil stabilizers designed for long-term dust stabilization on dirt roads.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
AQ-10 Interior array areas shall have re-established pre-existing vegetation or be established with drought tolerant, native, or native compatible vegetation, to the greatest extent feasible, approved by the County biologist and compliant with Fire Department requirements, within two years of energization authorization of an array area by the Department of Public Works, Building and Safety Division, to provide long-term dust stabilization under the arrays.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager/Biologist	LACFD LACDRP
AQ-11 Earth disturbing activities shall be suspended and/or additional water shall be applied to meet Rule 403 criteria if wind gusts exceed 25 miles per hour.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP AVAQMD
AQ-12 Construction activity shall utilize electricity from power poles on or adjacent to the Project sites rather than use of temporary diesel power generators and/or gasoline power generators when electricity with adequate circuit capacity is available from power poles in proximity to construction areas.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
AQ-13 In the event temporary night lighting is necessary for construction or maintenance purposes, lighting not requiring the use of diesel or gasoline driven generators shall be used.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.4 BIOLOGICAL RESOURCES				
B-1 Prior to the issuance of a grading permit, a qualified biologist shall be retained by the Applicant as the lead biological monitor subject to the approval of the LACDRP and CDFW. That person shall ensure that impacts to all biological resources are minimized or avoided, and shall conduct (or supervise) pre-grading field surveys for species that may be avoided, affected, or eliminated as a result of grading or any other site preparation activities. The lead biological monitor shall ensure that all surveys are conducted by qualified personnel (e.g. avian biologists for bird surveys, herpetologists for reptile surveys, etc.) and that they possess	A. Retain qualified Biologist(s)	Prior to issuance of Grading Permit	Applicant/Construction Monitor	LACDRP CDFW
	B. Field Surveys	Prior to grading permit	Applicant	LACDRP CDFW
	C. Maintain daily monitoring reports	During Construction	Applicant/Construction Monitor	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
all necessary permits and memoranda of understanding with the appropriate agencies for the handling of potentially-occurring special-status species. The lead biological monitor shall also ensure that daily monitoring reports (e.g., survey results, protective actions, results of protective actions, adaptive measures, etc.) are prepared, and shall make these monitoring reports available to DRP and CDFW at their request.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-2 Pre-Construction surveys will be conducted prior to ground disturbance at each project site. These surveys will include all special-status species identified as having the potential to be present on the project site; including, but not limited to, badger, kit fox, southern grasshopper mouse, and the species listed below. • Pre-survey information gathering will include reviewing of all available agency nest data and mapping. • A focused pre-construction Swainson's hawk survey shall be conducted to locate any nesting sites within 5 miles of Projects 1 – 6. If Swainson's hawks or their active nests are located within 500 feet of the project sites, all construction-related work shall be postponed and CDFW will be consulted. • Project-related activities likely to have the potential of disturbing suitable bird nesting habitat, which includes ground nesting birds, shall be prohibited from February 1 through August 31, unless a qualified monitoring biologist conducts nesting bird surveys prior to any construction-related disturbance to confirm the absence of active bird nests or bird nesting habitat. Disturbance shall be defined as any activity that physically removes or damages vegetation or habitat or any action that may cause disruption of nesting behavior such as loud noise from equipment or artificial night lighting. Surveys shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to the commencement of disturbance. If an active bird nest is discovered, disturbance within 500 feet for raptors shall be postponed until the nest is vacated, offspring are independent of the nest area and there is no evidence of further attempts at nesting. Limits of avoidance shall be marked with high-visibility flagging or fencing. The Applicant shall record the results of the recommended protective measures and submit the records to LACDRP and CDFW to document compliance with applicable state and federal laws pertaining to the protection of native birds. • A pre-construction burrowing owl survey shall be conducted on each site prior to grading. Pre-construction surveys for burrowing owl shall be conducted weekly, beginning no later than 30 days and ending no earlier than 3 days prior to	Pre-construction surveys for special-status species that have been identified as having potential to occur on site	Prior to grading or as specified per species	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
the commencement of disturbance. The surveys shall follow the protocols set forth by the California Burrowing Owl Consortium (1993 and 2012). If burrowing owls are found during the pre-construction survey, then replacement burrows and habitat must be provided prior to the commencement of construction. The Applicant shall be prepared to provide artificial replacement burrows in the event that owls are detected, either as wintering or breeding individuals. Wintering individuals may be evicted with the use of exclusion devices followed by a period of seven days to ensure that animals have left their burrows. When it can be assured that owls are no longer using the burrows, the burrows can be hand excavated and collapsed under the supervision of the avian biologist. Breeding owls must not be disturbed and must be allowed to complete the raising of young until the fledglings can forage independently of adults and it can be confirmed that further attempts at nesting shall not be undertaken. When this has been confirmed, the owls can be evicted as described above for wintering animals. • Pre-construction surveys shall be conducted for special-status ground-dwelling reptiles, including but not limited to coast horned lizard and northern California legless lizard. Surveys shall be conducted by placing coverboards on the ground 4 to 6 weeks in advance of the survey effort, checking weekly for such species. Any special-status reptiles or other species determined important by the qualified biological monitor (i.e., biologist must be appropriately permitted for collection and relocation activities) occurring within the work area prior to the start of work shall be collected and relocated to areas outside of the designated work zones.				
B-3 During grading, earthmoving activities, and other construction activities the biological monitor shall be present to inspect and enforce all mitigation requirements and to relocate any species that may come into harm's way to an appropriate offsite location of similar habitat. The biological monitor shall be authorized to stop specific grading or	Biological Monitoring	During construction	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
construction activities if violations of mitigation measures or any local, state, or federal laws are suspected. The biological monitor shall file a report of the monitoring activities with LACDRP and CDFW. If ongoing biological monitoring of construction activities reveals the presence of any special-status reptiles within an active work area, then work shall be temporarily halted until the animals can be collected and relocated to areas outside of the designated work zones. Work areas shall be surveyed for special-status reptile species, such as the coast horned lizard and northern California legless lizard, during construction activities. During the construction, surveys shall be conducted by placing coverboards on the ground in appropriate work areas and checking them weekly for such species. Any special-status reptiles occurring within the work area shall be collected and relocated to areas outside of the designated work zones.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-4 Mitigation lands shall be acquired for Swainson's hawk, burrowing owl, special-status migratory and wintering birds, and alkali mariposa lily. <u>Swainson's hawk</u>: Impacts due to development of the projects shall be mitigated by the acquisition of good quality Swainson's hawk habitat targeted within the Antelope Valley. Land shall be purchased or placed in a conservation easement or other suitable deed restriction and managed to maintain suitable habitat in perpetuity. The proposed development is not expected to result in the "take" of Swainson's hawk; however, the Applicant shall be required to consult CDFW in the event of take, which may result in additional mitigation prescribed by CDFW. Although the Projects are not expected to result in "take" of Swainson's hawk, mitigation will still be required to alleviate the effects of cumulative impacts on raptor, migratory bird, and burrowing owl habitats: Replacement land will be provided based on the quality of the mitigation land relative to the impacted habitat. The ratio of such replacement shall be determined as follows: • A ratio of one acre of replacement land for each 3 acres of development if the replacement land is superior nesting and foraging habitat contiguous to occupied nesting and foraging habitat, and is within a designated or proposed Significant Ecological Area (SEA). • A ratio of one acre of replacement land for each 2 acres of development if the replacement land is unoccupied irrigated land, contiguous to occupied habitat and providing superior quality foraging habitat with trees or other such nesting habitat; • A ratio of 1 acre of replacement land for each acre of development if the replacement land provides similar foraging and nesting habitat. <u>Burrowing Owl</u>: Mitigation for any occupied burrowing owl burrows found during pre-construction surveys will include a comprehensive tiered approach: • Pre-construction and construction monitoring surveys conducted by a qualified biologist to detect potential new owl activity onsite;	A. Acquire mitigation lands for Swainson's Hawk	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	B. Acquire mitigation lands for Burrowing Owl	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	C. Pre-construction survey for Alkali Mariposa Lilies	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW
	D. If necessary Acquire Alkali Mariposa Mitigation land	Prior to 1st either grading or building permits	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
• Disturbance avoidance of occupied burrows during nesting period February 1 – August 31; • Impact avoidance of occupied burrows; • Burrow exclusion and closure and offsite relocation (>100 m), as described previously in in B-2, will be conducted for unavoidable impacts to occupied burrows (after consultation with CDFW). • Minimizing impacts by protecting in-place any owls, their burrows, and their immediate habitat by establishing setback zones and visual screens for burrows adjacent to construction activity; by placing visible markers, and by conducting construction worker awareness training. Setback widths will be applied as appropriate to the level of existing disturbance and owl stage of activity (e.g., for low to moderate construction-related disturbance activity outside the nesting season near burrows in currently high-traffic or disturbance areas, it is assumed owls are adapted to human disturbance and will not need a large setback). • Mitigating unavoidable impacts to habitat: restore temporary impacts to pre-existing conditions; replace nesting/occupied and satellite burrows lost with the same number of suitable burrows on the mitigation site. Mitigation acreage for foraging habitat provided for Swainson's hawk will be sufficient to replace lost burrowing owl habitat because the hawk's replacement habitat will be in-kind or better (i.e., the Project habitat is low quality overall and mitigation habitat will be at least the same quality as the lost habitat OR will have higher quality habitat features overall, such as increased vegetative structure, higher numbers of prey species, less disturbance, and less potential for predation by domestic animals, etc.). Specific habitat considerations as provided in the CDFW 2012 burrowing owl guidance will be considered in selecting the overall habitat replacement acres for the project. <u>Alkali Mariposa Lily</u>: Alkali mariposa lily will be avoided to the greatest extent possible. If pre-construction surveys reveal individuals that cannot be avoided, mitigation of lost alkali mariposa lily shall be provided at a minimum 1:1 ratio. This acreage will be calculated with input from LACDRP and CDFW. Additionally, because alkali mariposa Lilies have locally available seed sources, plantings of the lilies on				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
appropriate soil types on Projects shall be implemented in selected areas. The lilies may also be transplanted from areas planned for disturbance to more suitable locations in the Project area. Transplantation locations must be situated within adequately buffered areas to be found suitable. For all species the mitigation acreage may be located within the Project sites, but outside of the area of development, subject to LACDRP and CDFW approval, if acreage of sufficient quantity and quality exists.				

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
B-5 Review and Approval of Habitat Management Lands Prior to Acquisition: The Applicant shall provide a mitigation land acquisition proposal to LACDRP and CDFW for their approval before acquiring the property. The proposal shall discuss the suitability of the property by comparing it to the selection criteria. As a part of the preparation of the land acquisition proposal, acreage quantification by habitat category will be developed with LACDRP and CDFW based on the following criteria: <u>Habitat Management Land Selection Criteria</u>: The Applicant must identify the region within which lands shall be acquired, and the type and quality of habitat to be acquired. Detailed criteria and acreage for each habitat category will be developed with Los Angeles County and CDFW. Foraging habitat shall be assessed as moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred. <u>Habitat Management Lands Acquisition</u>: Prior to initiating ground-disturbing activities, the Applicant shall provide a proposal to LACDRP and CDFW for off-site mitigation land to be restored, enhanced, or maintained according to the requirements of the biological mitigation measures in this EIR. The proposal will require that mitigation lands identified shall be preserved as open space in perpetuity. Within 45 days of acquiring the mitigation land(s), the Applicant shall record a permanent deed restriction on the mitigation land(s) to be preserved as open space. The deed restriction or conservation easement language shall be submitted to LACDRP and CDFW for review and approval prior to recordation. Alternatively, should a conservation easement on the mitigation land be offered, the permanent conservation easement shall be recorded to the satisfaction of LACDRP and CDFW. The Applicant shall establish a fund sufficient for the restoration, enhancement, and maintenance of the mitigation land(s) until such time when the mitigation land(s) become self-sustaining and until such time as the mitigation land(s) meet the requirements of this mitigation measure. The fund shall be established within 90 days of mitigation land(s)	A. Obtain approval of habitat management lands	Prior to Acquisition	Applicant	LACDRP CDFW
	B. Record a permanent deed restriction or conservation easement on mitigation land(s)	Within 45 days of acquiring land(s)	Applicant	LACDRP CDFW
	C. Establish fund in the amount acceptable to LACDRP and CDFW for restoration, enhancement, and maintenance of the mitigation lands	Within 90-days of mitigation land(s) acquisition	Applicant	LACDRP CDFW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
acquisition in an amount acceptable to the LACDRP and CDFW.				
Land Acquisition Schedule and Financial Assurances: The Applicant shall complete acquisition, or execute an irrevocable option to purchase, of proposed Habitat Management lands and shall provide financial assurances for dedicating adequate funding for impact avoidance, minimization, and compensation measures, if necessary, prior to the issuance of building permits. If an irrevocable option to purchase is utilized, the applicant shall provide a proposed date of purchase which coincides with construction of the facility.				
B-6 Prior to alteration of any streambeds, the Applicant shall enter into an agreement with the CDFW, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.	Enter into an agreement with CDFW pursuant to sections 1601 through 1603	Prior to alteration of Streambed	Applicant	CDFW
B-7 Within all interior portions of the site within and adjacent to the proposed solar arrays, re-vegetation shall be accomplished (excluding interior roads as follows: Vegetation seeded in these areas shall comprise locally-sourced, native species if available, or, native compatible as approved by the County biologist if sufficient locally-sourced native seed stock not available, approximating low-growing communities such as native perennial or annual grasslands (i.e., wildflower fields). Shrub species shall not be used due to these species inability to survive continued vegetation trimming. Vegetation shall be maintained in accordance with Los Angeles County Fire Department regulations.	Revegetation of interior site, excluding interior roads	After construction	Applicant	LACDRP
5.5 CULTURAL RESOURCES				
CUL-1 In the event cultural resources are encountered during construction of the Projects, all ground-disturbing activities within the vicinity of the find shall cease and a qualified archaeologist and Native American Monitor shall be notified of the find. The archaeologist, in consultation with the Native American Monirot shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to recordation and excavation of the finds and evaluation and processing of the finds in accordance with § 15064.5 of the CEQA Guidelines. Potentially significant cultural resources	A. Archaeological monitoring and Native American monitor when there is a find	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP NAHC
	B. Maintain log demonstrating compliance	During earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During earthmoving activities	Applicant/Construction Manager/Qualified	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resources are determined to be unique historic resources as defined under § 15064.5 of the CEQA Guidelines, Mitigation Measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further earthwork shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation will be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study. This Mitigation Measure shall apply to all Projects.			Archaeologist	
CUL-2 In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. This Mitigation Measure shall apply to all Projects.	A. Archaeological and Native American monitoring	During construction	Applicant/Construction Manager/Qualified Archaeologist/NAHC representative	LACDRP NAHC
	B. Maintain documentation demonstrating compliance	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	C. Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-3 Project 4 construction of gen-tie lines shall maintain the right of way buffer zones prescribed by SCE for this historic electric transmission line resource, which is an active transmission line. This Mitigation Measure shall apply to Project 4 only.	Site inspection as needed	During construction	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
CUL-4 Project construction for Project 4 shall maintain a one acre undisturbed area surrounding the Del Sur Cemetery	A. Submit pre-construction surveys	Prior to construction	Applicant/Qualified Archaeologist	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
site. This Mitigation Measure shall apply to Project 4 only.	B. Construction monitoring by qualified Archaeologist	During construction	Applicant/Qualified Archaeologist	LACDRP
	C. Submit construction monitoring documentation	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
	D. Site inspection as needed	Applicant/Qualified Archaeologist	Applicant/Qualified Archaeologist	LACDRP
CUL-5 A County approved archaeologist will be retained to initiate and supervise cultural resource monitoring during Project related earthwork in areas of the Project that are within 50 feet from certain significant cultural resources, specifically from the defined perimeter of site CA-LAN-1579H (Project 4). If resources are identified, the procedures outlined in CUL-1 will be followed and/or CUL-2 (as necessary). This Mitigation Measure shall apply to Project 4 only.	A. Archaeological monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
	B. Maintain log demonstrating compliance	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Archaeologist	LACDRP
PALEO-1: A qualified paleontologist shall be retained by the Applicant prior to excavations reaching 10 feet in depth or greater. A The paleontologist shall develop and execute a Paleontological Resource Mitigation and Monitoring Program and supervise a paleontological monitor whom shall monitor all ground-disturbing activities associated with such excavations. The Program will outline the procedures to follow in regards to paleontological resources (e.g. monitoring protocols, curation, data recovery of fossils, reporting). If fossils are found during such excavation, the paleontological monitor shall be authorized to halt ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment according to the Program.	Paleontological Monitoring	During Project related earthmoving activities	Applicant/Construction Manager/Qualified Paleontologist	LACDRP LAC Natural History Museum support/referral
5.6 GEOLOGY AND SOILS				
No mitigation measures are required for Geology and Soils.	N/A	N/A	N/A	N/A
5.7 GREENHOUSE GAS EMISSIONS				
GHG-1 All off-road diesel powered construction equipment less than 50 hp shall meet or exceed Tier 2 off-road emission standards. Off-road diesel-powered construction equipment greater than or equal to 50 hp shall meet or exceed Tier 3 off-road emission standards. The construction equipment	A. Submit operating permit(s) as required	Prior to commencement of construction	Applicant	AVAQMD LACDRP
	B. Maintain log	During construction	Applicant/Construction	AVAQMD

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
requirement shall be increased to Tier 4 off-road emission standards by January 1, 2015. Post-January 1, 2015, all off-road diesel-powered construction equipment greater than 50 hp shall meet or exceed Tier 4 off-road emission standards, where available. Verification documentation such as an ongoing log shall be provided to the County of Los Angeles Department of Regional Planning upon request within five business days.	demonstrating compliance		Manager	LACDRP
GHG-2 During construction, the off-road equipment, vehicles, and trucks shall not be idle more than five minutes in any one hour.	Site inspection as needed	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-3 The off-road construction equipment drivers shall have proper training in operating the equipment efficiently, taking into account ways to reduce the hours of operations of the equipment and/or operate the equipment at a lower load factor.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	AVAQMD LACDRP
GHG-4 Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.	Site inspection as needed	During construction and grading	Applicant/Construction Manager	AVAQMD LACDRP
GHG-5 During construction, there shall be documented carpools, vanpools, and/or shuttles provided for construction employees.	Maintain log demonstrating compliance	Prior to Building Permit	Applicant/Construction Manager	AVAQMD LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
5.8 HAZARDS/HAZARDOUS WASTES				
HH-1 Prior to the start of construction activities, a Hazardous Materials Management Plan shall be implemented for each project.	Submit Hazardous Materials Management Plan	Prior to start of construction	Applicant	DTSC
HH-2 Prior to the start of construction activities, a Hazardous Waste Management Plan shall be implemented for each project.	Submit Hazardous Waste Management Plan for each Project	Prior to start of construction	Applicant	DTSC
HH-3 Prior to the start of construction activities on the parcel containing the historic UST at the location of Project 1, a Phase I ESA will be completed. This mitigation measure only applies to Project 1.	Phase I ESA	Prior to issuance of grading permit(s)	Applicant	LACDRP
HH-4 Prior to the start of construction activities, a closure permit for the UST will be verified or obtained from the Los Angeles County Fire Department, Health Hazardous Materials Division. This mitigation measure only applies to Project 1.	Closure permit or verification for UST – Project 1 site	Prior to issuance of grading permit(s)	Applicant	LACFD
HH-5 Construction activities shall be halted if previously unidentified soil contamination is observed or indicated by testing during any earthwork activities. Construction will be halted or redirected until such soil contamination is evaluated and disposed of and/or treated	Testing of soil contamination	Prior to start of construction	Applicant	DTSC LACDRP
5.9 HYDROLOGY/WATER QUALITY				
Construction				
HYDRO-1 Education and training for Property Owners, Tenants, Occupants and Employees. Appropriate educational materials and training for preventing stormwater pollution and additional BMP Fact Sheets from the California Stormwater Best Management Practice Handbooks can be found at www.cabmphandbooks.com. Practical information material will be provided to employees on general good housekeeping practices. These materials will describe, but are not limited to, spill prevention and control and the use of chemicals, petroleum products, pesticides and fertilizers that should be limited to the property, with no discharge of wastes directly or indirectly to gutters, catch basins or the storm drain system. Information will be distributed directly to the employees as well as being posted in public areas. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities. The required materials shall be	Maintain log demonstrating compliance of Educational materials and training for Property Owners, Tenants, Occupants, and Employee	During Construction	Applicant	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
available at each project site and a log kept to show education has occurred prior to the start of construction.				
HYDRO-2 A spill contingency plan will be prepared by the owner/building operator. As a minimum the Spill Contingency Plan will "mandate the stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials and documentation." This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit spill contingency plan	Prior to grading permit	Applicant	LACDRP
HYDRO-3 No hazardous materials are anticipated to be stored on-site. If deemed otherwise, a designated representative of the owner shall provide information to the Fire Authority in accordance with requirements of the Health & Safety Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Maintain log demonstrating compliance	During construction and operations	Applicant/Construction Manager	LACFD
HYDRO-4 A designated representative of the owner shall provide information to the Fire Authority in compliance of the current requirements of the County of Los Angeles Fire Code. This Mitigation Measure shall be implemented at Projects 1 – 6 for the entire duration of construction activities.	Submit all applicable information	Prior to grading permit	Applicant	LACFD
Operation				
HYDRO-5 Site waste receptacles shall be emptied on a weekly basis or more often if containers approach overflowing. Upon inspection any debris or rubbish will be picked up and the site cleaned. The trash area/room is NOT to be cleaned by hosing down. The type of materials used to clean the area and storage of said materials will be determined by the Contractor. Signage will be posted that lids shall be kept closed at all times. This Mitigation Measure shall be implemented at Projects 1 – 6 at all times during facility operations.	A. Include waste collection and disposal methods in construction contract specifications	During operation	Applicant	LACSD LACDRP
	B. Maintain log demonstrating compliance	During operation	Applicant	LACSD LACDRP
5.10 LAND USE AND PLANNING				
No mitigation measures are required for Land Use and Planning	N/A	N/A	N/A	N/A
5.11 NOISE				
N-1 Construction operations would not occur between 7:00 p.m. and 7:00 a.m. on weekdays or Saturday, or at any time on Sunday with the exception of limited low-noise	Maintain log of construction equipment arrivals and exit times demonstrating	During construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
generating potential night work with Los Angeles County Department of Regional Planning and Public Works approval.	compliance			
N-2 Construction site and access road maximum speed limit of 15 miles per hour shall be established and enforced during the construction period.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-3 Electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment, except for devices like trucks, loaders, dozers, and other heavy equipment.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
N-4 Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable, and no closer than 1,000 feet, from noise-sensitive receptors.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
	B. Inclusion of requirement for a Noise Control Plan	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-5 The use of noise-producing signals, including horns, whistles, alarms, and bells are prohibited except where required by OSHA or for safety or emergency warning purposes required by other regulatory agencies.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP
N-6 Project-related public address or music systems used on-site shall not be audible at any adjacent receptor.	Site inspection as needed	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
N-7 All noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications which are in compliance with any applicable legally required equipment noise standards. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and/or other noise control features that are readily available for that type of equipment. Mobile sound barriers with a sound transmission class of 19 or greater will be used for pile driving on Projects where received sound levels at the nearest NSR are predicted to be above the County construction noise limit of 60 dBA during the day.	A. Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP LACDPH – Health Officer for referral
	B. Site inspection as needed	During Construction	Applicant/Construction Manager	LACDRP

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-8** Siting substations to achieve NEMA sound ratings at sensitive receptors as described in Section 4.11.5.2 not to be closer to the property line of sensitive receptors than the following distances for each individual project: • Project 1 – 325 feet with a NEMA sound rating of 74 dBA • Project 2 – 1,511 feet with a NEMA sound rating of 81 dBA • Project 3 – 650 feet with a NEMA sound rating of 74 dBA • Project 4 (two transformers) – 1,000 feet with a NEMA sound rating of 77 dBA • Project 5 – 748 feet with a NEMA sound rating of 82 dBA	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
With respect to mitigation during operation, potential impacts associated with on-site substations are considered. Depending on the Project's acoustic design goals, final substation design may incorporate appropriate mitigation measures, including: **N-9** The Applicant shall choose to use NEMA low noise rated transformer equipment which will achieve 10 dBA or greater noise reduction as compared to standard NEMA-rated transformers of a similar size and rated capacity to ensure that Project noise impacts would be less than significant.	A. Submit acoustical report demonstrating substation design compliance with applicable noise standards	Prior to issuance of relevant building permit(s)	Applicant	LACDRP LACDPH Health Officer
	B. Construct structures in compliance with noise limit requirements of applicable County codes.	During construction	Applicant/Construction Manager	LACDRP LACDPH
	C. Submit post-construction noise measurements verifying compliance upon request	Prior to issuance of certificate of occupancy	Applicant	LACDRP LACDPH Health Officer – for support/referral
5.12 PUBLIC SERVICES				
No mitigation measures are required for Public Services	N/A	N/A	N/A	N/A
5.13 TRANSPORTATION/TRAFFIC				
TT-1 Prior to issuance of first grading or building permit, Applicant shall document and submit all required information	Submit Projects' road survey	Prior to issuance of first grading or building	Applicant	LACDPW

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
and/or material pertaining to the pavement conditions of construction routes for the Projects, including the formula for calculation of the Projects' fair share of any repair or reconstruction of construction routes to the satisfaction of LACDPW. Applicant shall reimburse the County of Los Angeles for the cost of any repairs and/or reconstruction of construction routes attributable to the Projects as agreed to by LACDPW. The timing of any necessary repairs and/or reconstruction of construction routes and the required payment by the Applicant shall be determined by LACDPW.		permit		
TT-2 The County, including LACFD Fire Stations 78 (for R2011-00801) and 130 (for R2011-00798, 00799, 00805,00807, & 00833) shall be notified at least three days in advance of any street closures that may affect fire and/or paramedic responses in the area. The Applicant shall provide alternate route (detour) plans to the County, including three sets to LACFD, with a tentative schedule of planned closures, prior to the beginning of construction.	Provide street closure notifications	Three days prior to any street closures impacting fire and/or paramedics	Applicant/Construction Manager	LACFD
TT-3 Stagger construction work shifts before or after peak traffic hours.	A. Maintain log demonstrating compliance	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
	B. Site inspection as needed	During construction	Applicant	LACDRP LACDPH Health Officer – for support referral Caltrans
TT-4 Schedule truck deliveries during off peak hours.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-5 Limit water truck deliveries during the AM peak hour to 30 percent of the daily water truck trips.	Maintain log of truck arrivals and exit times demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
TT-6 Encourage carpooling between construction works.	Maintain log demonstrating compliance	During construction	Applicant/Construction Manager	LACDRP
5.14 UTILITIES				
No mitigation measures are required for Utilities.	N/A	N/A	N/A	N/A

Project Design Feature/Mitigation Measure	Action Required	Mitigation Timing	Responsible Party	Monitoring Agency or Party
List of Acronyms: B & S – building and safety BMP – Best Management Practice CEQA – California Environmental Quality Act CASQA – California Association of Stormwater Quality Agencies CBC – California Building Code CDFW – California Department of Fish and Wildlife CUP – Conditional Use Permit CVC – California Vehicle Code dBA – decibels (acoustics) DPR – Department of Parks and Recreation ESA – Environmental Site Assessment hp – Horsepower LACDPW – Los Angeles County Department of Public Works LACFD – Los Angeles County Fire Department mph – miles per hour NEMA – National Electrical Manufacturers Association OSHA – Occupational Safety and Health Administration PRC – Public Resources Code ROW – Right of Way SCE – Southern California Edison SWPPP – Stormwater Pollution Prevention Plan UFC – Uniform Fire Code UST – Underground Storage Tank WATCH – Work Area Traffic Control Handbook LACDPH – Los Angeles County Department of Public Health LACSD – Los Angeles County Sanitation District				