



**LAND USE SERVICES DEPARTMENT
PLANNING DIVISION
PLANNING COMMISSION STAFF REPORT**



HEARING DATE: April 17, 2014

AGENDA ITEM # 2

Project Description

Vicinity Map

APNs: 3065-561-07
Applicant: Mr. Ricardo Graf, SunEdison, Authorized Representative of SunE CREST 1, LLC and SunE CREST 2, LLC
Community: Phelan/1st District
Location: West of White Road, south of Nielson Road, and north of Muscatel Street
Project No: P201300250/CUP
Staff: Marie Gilliam
Applicant Rep: EDP Solutions - Jeremy Krout
Proposal: Conditional Use Permit to establish an approximately 5.8-megawatt solar photovoltaic electricity generation facility on approximately 50 acres



25 Hearing Notices Sent On: April 3, 2014
 Field Review: TBD

Report Prepared By: Marie Gilliam
 Reviewed By: Commissioner Coleman

SITE INFORMATION

Parcel Size: 50.0 Acres

Terrain: Relatively flat desert terrain, with a gentle downward slope to the north and an elevation change of approximately 80 feet over approximately 0.5 mile.

Vegetation: Intergrade of Joshua Tree Woodland and Mojavean Juniper Woodland and Scrub.

SURROUNDING LAND DESCRIPTION:

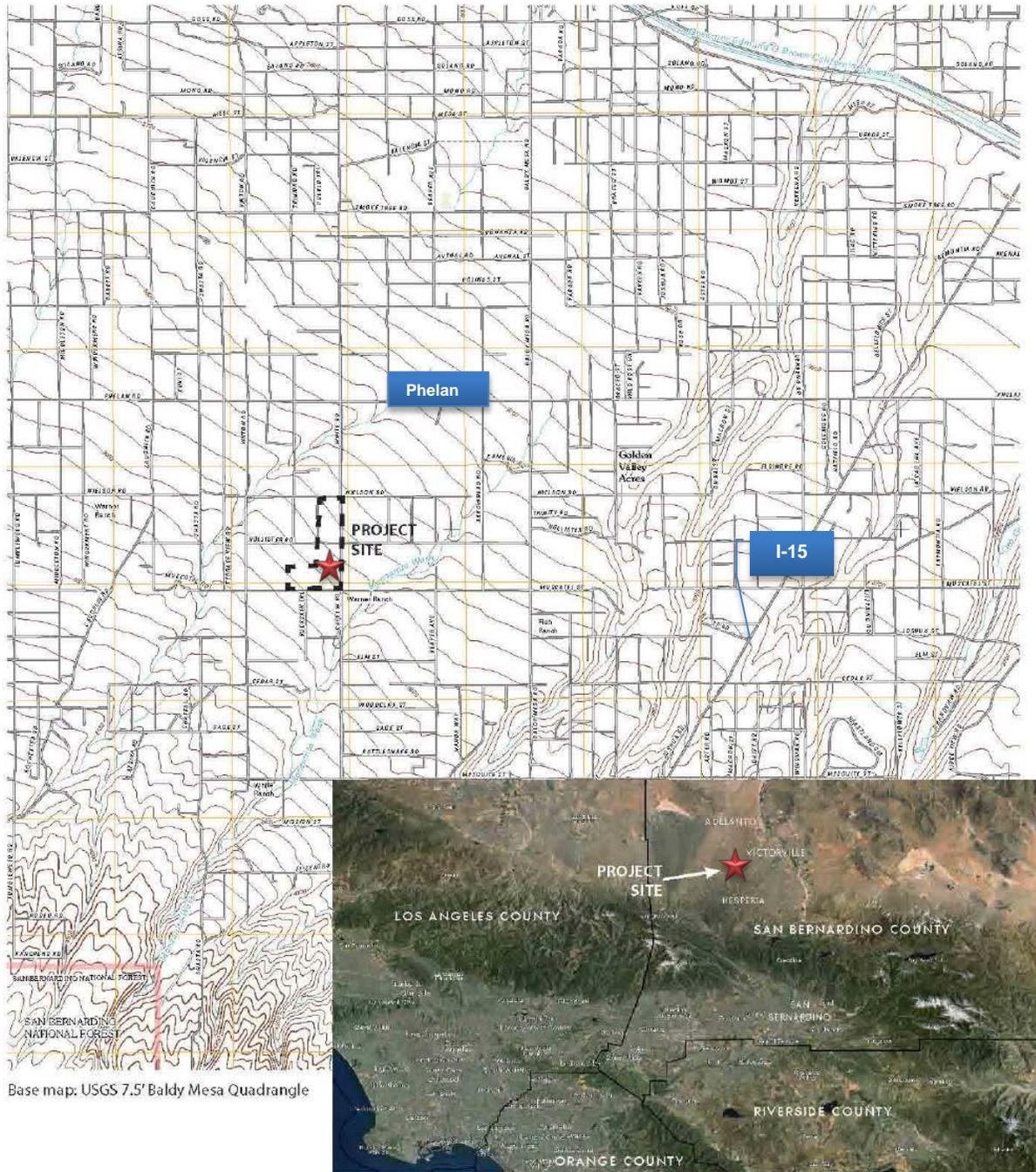
AREA	EXISTING LAND USE	LAND USE ZONING DISTRICT
Site	Vacant land with one structure	PH/IN (Phelan-Pinon Hills Community Plan/Institutional)
North	Rural residential; vacant lands	PH/RL (Phelan-Pinon Hills Community Plan/Rural Living)
South	Rural residential; vacant lands	PH/RL (Phelan-Pinon Hills Community Plan/Rural Living)
East	Rural residential; vacant lands	PH/RL (Phelan-Pinon Hills Community Plan/Rural Living)
West	Rural residential; vacant lands	PH/RL (Phelan-Pinon Hills Community Plan/Rural Living)

	<u>AGENCY</u>	<u>COMMENT</u>
City Sphere of Influence:	N/A	N/A
Water Service:	N/A	PPHCSD approved use of local fire hydrants during construction
Sewer Service	N/A	Not required

In accordance with Section 86.08.010 of the San Bernardino County Development Code, this action may be appealed to the Board of Supervisors.

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FIGURE 1 VICINITY MAP



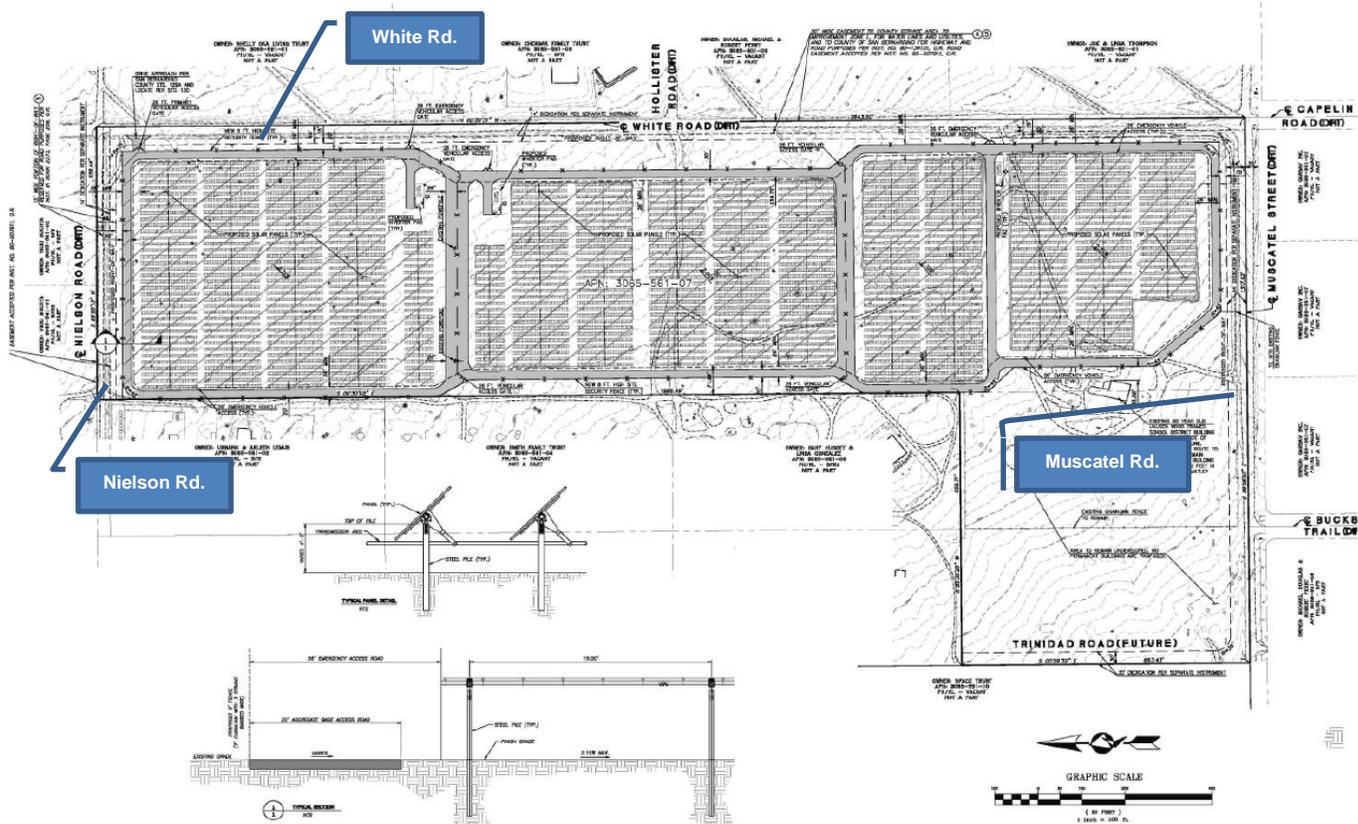
Base map: USGS 7.5' Baldy Mesa Quadrangle

**FIGURE 2
EXISTING LAND USE DISTRICT MAP**



PH= Phelan Community Plan
IN= Institutional
RL= Rural Living

FIGURE 3 PROPOSED SITE PLAN



Source: SunEdison
 RGP Planning and Development Services
 Dewalt Corporation
 May 31, 2013

FIGURE 4 SITE AND SURROUNDING PHOTOS



Photo 1: View of site from northeast corner.



Photo 2: View of surrounding area from Phelan Road, north of site.



Photo 3: View of surrounding area from Phelan Road, northwest of site.



Photo 4: View of surrounding area from Cedar Street, south of site.



Source: RPG Planning

**FIGURE 5
AERIAL PHOTOGRAPH**



Source: RPG Planning

PROJECT DESCRIPTION AND BACKGROUND:

Project: The proposed Conditional Use Permit (CUP) is a request to establish a 5.8-megawatt solar photovoltaic (PV) electricity generation facility (Project) on approximately 34 acres of a 50 acre site in the unincorporated community of Phelan. Upon completion, the facility would be unmanned, with only occasional maintenance and security visits by personnel.

Location and Access: The Project site is located in on the west side of White Road, the south side of Nielson Road, and the north side of Muscatel Road, as shown in Figures 1 and 2. The primary access point is proposed from White Road, on the east side of the Project site. Twenty foot wide access roads improved with an aggregate base are proposed along the site perimeter, as shown on Figure 3 – Proposed Site Plan. On-site service roads would be surfaced with gravel. Two emergency access points would also be provided along White Road, south of the Project entry. Site entry will be controlled and the site is to be fenced with an eight-foot chain link fence. No public access is proposed.

Environmental Setting: The site slopes gently downward to the north, with an elevation change of up to 80 feet over a distance of 0.5 mile. Elevations range from approximately 3,910 feet above mean sea level (amsl) to 3,830 feet amsl. In April and May of 2013, biological surveys on the site found plant communities to include a combination of Joshua Tree Woodland, Mojavean Juniper Woodland and Scrub, dominated by Joshua tree, California juniper, Tucker's oak (in the southwest portion of the parcel, outside the development area), Great Basin sagebrush, peach thorn, bladder-sage, blue sage, Cooper's goldenbush, Interior goldenbush, and California buckwheat. Figure 4 - Site and Surrounding Photographs, and Figure 5 - Aerial Photograph, illustrate the general character of vegetation on the Project site and immediately adjacent areas.

Solar Array Operation: Planned facilities are proposed to include photovoltaic panels mounted at either a fixed tilt or on single axis trackers, supported by steel piers driven into the ground to an appropriate depth, as determined by soil conditions. The height of panels is proposed to range from 8 to 12 feet, in rows running north and south on the Project site, as shown in Figure 3 - Proposed Site Plan. The proposed design also includes inverters and transformers, mounted on small concrete pads and distributed across the site, as well as an unmanned supervisory control and data acquisition system to monitor and control facility operations. The inverters are to be connected to existing power distribution lines along White Road. Extension of off-site distribution lines is not required. The perimeter of the site is proposed to be surrounded by an eight-foot high chain link fence with access gates at the site's entry on White Road. The electric power produced by the Project is to be sold to Southern California Edison under two long-term Power Purchase Agreements executed in October 2012 with an online target date of October 2014.

ANALYSIS:

Consistency with General Plan and Zoning Regulations: The current General Plan land use designation for the proposed Project area is Phelan-Pinon Hills Community

Plan/Institutional (PH/IN) as shown in Figure 2 – Existing Land Use District Map. This designation allows development of renewable energy generation facilities with a CUP as requested by the Project applicant. The Project will be required to comply with all proposed Conditions of Approval, which are attached to this Staff Report as Exhibit A.

Regulations also require the adoption of Findings of Consistency with applicable development standards outlined in San Bernardino County Development Code (Development Code) Chapter 84.29 – Renewable Energy Generation Facilities, as revised in December 2013. Proposed Findings are attached to this Staff Report as Exhibit B. With Conditions of Approval, the proposed Project is considered consistent with the County General Plan, the Development Code, and Phelan-Pinon Hills Community Plan.

General Plan Policy: The County General Plan establishes goals for renewable energy for the County. Conservation Element Policy CO 4.12 states the County shall promote siting of renewable energy resources. Conservation Element Goal CO 8 aims to minimize energy consumption and promote safe energy extraction, uses and systems to benefit local, regional and global environmental goals. Policies under this Goal include Policy CO 8.3, which states that the County will assist in efforts to develop alternative energy technologies that have minimum adverse effect on the environment, and will explore and promote newer opportunities for the use of alternative energy sources. The proposed Project would act to support these goals and policies.

Aesthetics/Visual: The current visual character of the site and surrounding vicinity consists of scattered low-density rural residential uses, vacant lands, and relatively undisturbed desert habitat. The Project site is mostly flat, with no landforms of note, and no unique or unusual features on-site that dominate views in the area. Photovoltaic panels and other appurtenant structures will be sited on 34 acres of the 50 acre site, as shown in Figure 3 – Proposed Site Plan. Access roads and eight-foot high chain link fence will also be constructed and installed around the perimeter of the site.

The Initial Study, contained in Exhibit C to this Staff Report, analyzed potential alteration of the visual environment and simulated potential view alteration from several surrounding locations. As shown, views from most areas would not be substantially altered. Overall, the Project is largely obscured from the view of nearby residences by existing natural vegetation common to the area. The proposed Project will, however, alter views from immediately adjacent areas. Visual impacts would also be reduced by a proposed 115 foot setback area where desert vegetation is to be preserved, as well as by the proposed relocation of selected Joshua trees from within the Project site to the site perimeter. Due to the proposed deep setback area to be enhanced, intervening vegetation, and the height of Project facilities, Project structures would not dominate the horizon or significantly modify the overall visual landscape.

The proposed Project has a low profile and will have limited potential to create glare, because the PV panels are designed to absorb as much sunlight as possible and minimize reflectivity. Minimal lighting will be used at night, in compliance with Development Code standards for preservation of night skies. Therefore, light and glare associated with the Project will not substantially degrade the existing night-time visual character or quality of the site and its surroundings.

Biology: The Project site is located within a potential habitat area for desert tortoise, burrowing owl, and Mohave ground squirrel AMEC Environment & Infrastructure, Inc. (AMEC) conducted general biological investigations of the Project site to identify and document any biological resources that might be adversely affected by the Project. The Biological Resources Assessment was conducted on the entire 50-acre site in April and May 2013. In addition, AMEC also conducted Focused Surveys for desert tortoise, rare plants, burrowing owl, and Mohave ground squirrel in July and August 2013. The surveys found no signs of desert tortoise, burrowing owl, rare plants, or Mohave ground squirrel onsite or in the “Zone of Influence”. Although no protected species were found during these surveys, the proposed Conditions of Approval include conducting pre-construction surveys for burrowing owls and nesting birds as well as a burrowing owl habitat management plan, if pre-construction surveys discover the species on-site. Biological assessments and surveys are contained in Exhibit C, Initial Study.

Traffic: RGP Planning & Development Services prepared a Trip Generation Analysis for the proposed Project in June 2013. Construction activities of the Project site are anticipated to take place in two phases over a period of approximately 4-5 months. A workforce of 26 is estimated for the first phase (site preparation), and 65 for the second phase (PV system installation). According to the Trip Generation Analysis, a maximum of 98 Passenger Car Equivalent (PCE) trips per day is anticipated to occur during construction. During regular operations, it is anticipated that site visits associated with maintenance and security staff will take place every one to two days, resulting in less than 250 round trips annually. Washing of solar panels will occur approximately two times per year using hauled water from offsite sources. Based on this analysis, traffic and circulation impacts in the area will be negligible.

Renewable Energy Mandates: The California Renewable Portfolio Standard (RPS) legislation, established in 2002 (Senate Bill 1078), and accelerated in 2006 (Senate Bill 107), requires retail sellers of electricity to obtain 20 percent of their supply of electricity from renewable energy sources by 2010 and 33 percent of electricity from renewable energy sources by 2020. The proposed Project will assist in the State’s efforts to meet the RPS standard and increased demands for electricity.

Greenhouse Gas Emissions Reduction: In 2006, the State of California passed the California Global Warming Solutions Act (Assembly Bill 32) which requires the state to reduce emissions of carbon dioxide (CO₂) and other greenhouse gases (GHG) to 1990 emission levels (a 30 percent reduction) by 2020. Senate Bill 1368, enacted in 2006, prohibits California electric utilities from constructing power plants or entering into long-term energy purchase contracts with facilities that do not meet the GHG emissions standard. In December 2011, the County adopted a GHG reduction plan that established review criteria for GHG emissions. The proposed Project will assist in efforts to meet the California GHG emissions legislation, consistent with the County GHG reduction plan.

SOLAR ENERGY PROJECT MORATORIUM AND ORDINANCE

On July 23, 2013, the Board of Supervisors extended an interim urgency ordinance originally adopted on June 12, 2013, establishing a temporary moratorium on approval of

new commercial solar energy generation projects. The moratorium was established to allow time for the County to consider potential amendments to the Development Code that would enhance compatibility of solar energy generation projects with the natural environment and surrounding communities and neighborhoods. On December 3, 2013, an ordinance was adopted by the Board of Supervisors to amend Chapter 84.29 of the Development Code establishing new regulations for establishment of commercial solar energy generating systems. The moratorium did not apply to applications that were already in process at the time of adoption of the interim urgency ordinance. Although filed before the interim urgency ordinance, the application for the subject Project was accepted as complete after June 12, 2013; therefore, the Project is subject to the ordinance adopted on December 3, 2013.

The Project satisfies the criteria established by Development Code Section 84.29.035 and thus staff believes that the required findings can be made (Exhibits A & B).

PUBLIC COMMENTS

Project notices were distributed to 55 surrounding property owners located within 1,300 feet of the Project boundary on July 5, 2013. Responses to the notices were received from 15 individuals and one Responsible Agency. In addition, a petition in general opposition to the proposed Project containing 225 neighborhood signatures was submitted.

ENVIRONMENTAL REVIEW

An Initial Study (IS) was prepared for the Project pursuant to County Guidelines under Ordinance 3040 and Section 15063 of the California Environmental Quality Act (CEQA) Guidelines. A Notice of Intent to Adopt a Mitigated Negative Declaration was prepared for the Project and submitted to the State CEQA Clearinghouse on January 10, 2014. A 30-day CEQA public comment period ended on February 10, 2014. During the public review period, a comment letter was received from the Lahontan Regional Water Quality Control Board (LRWQCB). No other comments were received from Responsible Agencies.

Comments from LRWQCB focused on potential impacts to ephemeral drainages, impacts to water quality in the area, and impacts to jurisdictional waters. The agency's comment letter and a response to these concerns are attached as Exhibit E.

Responses, as noted previously, were also received from fifteen property owners. The primary CEQA issues raised included visual impacts and generation of light and glare. As described under Aesthetics/Visual analysis, several measures have been incorporated in Project design to minimize impacts to adjacent areas. The Initial Study also includes Mitigation Measures to minimize potential impacts from light and glare.

In summary, the Initial Study concludes that the proposed use, with the proposed mitigation measures and Conditions of Approval, will not have a significant effect on the environment and a Mitigated Negative Declaration is recommended for adoption.

SUMMARY:

The proposed Project will assist in meeting the renewable resource targets for retail sellers of electricity in California and is consistent with the State's GHG emissions goals, policies and standards. In addition, the proposed Project is consistent with the Development Code, applicable County's General Plan goals, policies and regulations regarding renewable energy. Therefore, Planning Staff recommends approval of the Project.

RECOMENDATION: That the Planning Commission:

- 1) **ADOPT** the Mitigated Negative Declaration and find that the Initial Study has been completed in compliance with CEQA, that it has been reviewed and considered prior to approving the Project and that the Initial Study/Mitigated Negative Declaration reflects the independent judgment of San Bernardino County;
- 2) **APPROVE** a Conditional Use Permit to establish a 5.8-MW solar photovoltaic electricity generation facility on 34.0 acres of the 50.0 acre Project site subject to the recommended Conditions of Approval;
- 3) **ADOPT** the proposed Findings for approval of the Conditional Use Permit per Development Code Section 85.06.040; and
- 4) **FILE** a Notice of Determination.

ATTACHMENTS:

- Exhibit A: Conditional Use Permit Findings
- Exhibit B: Renewable Energy Findings
- Exhibit C: Conditions of Approval
- Exhibit D: Initial Study/Mitigated Negative Declaration
- Exhibit E: Comments from LRWQCB and Response

EXHIBIT A

Findings

SunEdison White Road Solar Project, Phelan, CA**P201300250****CUP findings per Development Code Section 85.06.040**

Per Development Code Section 85.06.040, the following are the required findings that the reviewing authority must determine to be true before approving any Conditional Use Permit. The project's consistency with each finding is described:

- 1. The site for the proposed use is adequate in terms of shape and size to accommodate the proposed use and all landscaping, loading areas, open spaces, parking areas, setbacks, walls and fences, yards, and other required features pertaining to the application.**

Project Consistency: The project site is approximately 50 acres, only 34 of which are to be developed. The subject site is adequate in shape and size to provide all required features pertaining to the proposed solar facility in compliance with applicable development standards, including all required setbacks and fences. No loading areas, open spaces, parking areas or yards are required as the proposed facility will be unmanned, and only occasional maintenance and service will access the site.

- 2. The site for the proposed use has adequate access, which means that the site design incorporates appropriate street and highway characteristics to serve the proposed use.**

Project Consistency: The proposed project provides for adequate site access. The project site will be primarily accessed from White Road, a paved roadway, with sufficient space for occasional project vehicles to pull off the road before entering the site to avoid any traffic conflicts. Surrounding development is scattered low density rural residential and traffic volumes on area roadways are light as well. The project would generate negligible traffic during operations; and therefore, would not require an increase in roadway capacity or changes in roadway design.

- 3. The proposed use will not have a substantial adverse effect on abutting property or the allowed use of the abutting property, which means that the use will not generate excessive noise, traffic, vibration, or other disturbance. In addition, the use will not substantially interfere with the present or future ability to use solar energy systems.**

Project Consistency: An Initial Study has been prepared for the proposed project resulting in a Mitigated Negative Declaration (MND). The MND analyzed potential impacts to surrounding properties, and recommended Mitigation Measures to address any potentially significant impacts, including light and glare, air quality and noise. These measures are incorporated into the project Conditions of Approval. Consequently, no significant adverse impacts to abutting properties are anticipated. The project is also designed with substantial setbacks in excess of required development standards to minimize impacts to adjacent

properties. A 26-foot-wide perimeter access road will be constructed along the project site's fence line on the eastern boundary. The proposed solar panels would not exceed a maximum of 12 feet in height, lower than the typical single-story residence. When buffered by desert vegetation typical of the area and proposed fencing, such facilities are not anticipated to produce a significant effect on the aesthetics of local properties.

The closest existing residence, located adjacent to the project site to the west off of Nielson Road, also has significant vegetation on-site that would assist in screening the project site from view. The project would comply with the noise restrictions established by Development Code Section 83.01.080 during construction and operations. Construction will be temporary and not involve blasting, or produce noise and/or vibration that exceed Development Code requirements. Operation of the facility would generate minimal noise that is less than County Development Code standards. No discernible vibrations are expected during operations given the nature of the proposed use.

Construction traffic was also analyzed in the project MND and was determined to have a less than significant impact. During project operations, the facility will be unmanned; and minimal traffic will come to the site other than for maintenance. Dust will be controlled onsite during project construction pursuant to the Air Quality Management District (AQMD) and mitigation measure requirements incorporated as Conditions of Approval. The proposed facility would not shade adjacent parcels and would not limit the future development of solar energy systems or other development on neighboring properties in any way. The facility is a passive use and would not otherwise produce any disturbance for the surrounding community.

4. The proposed use and manner of development are consistent with the goals, maps, policies, and standards of the General Plan and any applicable community or specific plan.

Project Consistency: Solar energy generation is a conditionally permitted use within the Institutional (IN) land use zone; therefore, the project's land use is consistent with the General Plan map for the area. The General Plan is strongly supportive of the development of renewable energy resources and businesses that operate in the renewable energy field. Specifically, the General Plan states that the County should:

- Encourage utilization of renewable energy resources (Goal D/CO 2).
- Encourage use of renewable and alternative energy systems for residential uses (Policy D/CO 2.2).
- Provide incentives to promote siting or use of clean air technologies (e.g., fuel cell technologies, renewable energy sources, UV coatings, and hydrogen fuel) (Policy CO 4.12).
- Assist in efforts to develop alternative energy technologies that have minimum adverse effect on the environment, and explore and promote

newer opportunities for the use of alternative energy sources (Policy CO 8.3).

The Phelan/Pinon Hills Community Plan does not address solar or renewable energy development, thus General Plan goals and policies apply. Analysis contained in the MND for the proposed project has determined that no significant environmental impacts will result from the project with recommended Mitigation Measures that have been incorporated as Conditions of Approval.

5. There is supporting infrastructure, existing or available, consistent with the intensity of development, to accommodate the proposed development without significantly lowering service levels.

Project Consistency: During operation, the project will place negligible requirements on local infrastructure, and will not significantly affect existing service levels. The project will generate an insignificant number of vehicle trips that would easily be accommodated by existing local roadways. Improvements of on-site access roads to White Road, which is adjacent to the east of the site, are included in the Conditions of Approval. Electrical and telephone service are available adjacent to the site and would be extended to the site. No water, wastewater, natural gas, or cable television infrastructure is required to serve the project. Pursuant to Development Code Section 84.29.040, the project is also required to pay public safety services impact fees to offset any increased need for possible services.

6. The lawful conditions stated in the approval are deemed reasonable and necessary to protect the public health, safety, and general welfare.

Project Consistency: The project's Conditions of Approval largely reflect standard County conditions refined over time and designed to protect the public health, safety, and general welfare. These conditions are based on established legal requirements and are applicable to all similar projects. Consequently, they are considered reasonable and necessary to protect the public health, safety, and general welfare.

7. The design of the site has considered the potential for the use of solar energy systems and passive or natural heating and cooling opportunities.

Project Consistency: The project is a solar energy generation facility; and therefore, fully complies with this requirement. Implementation of the project would not impede development of solar energy generation systems on adjacent parcels.

8. An Environmental Initial Study has been prepared in compliance with the California Environmental Quality Act (CEQA) and represents the independent judgment of the County acting as lead agency for the Project.

Project Consistency: An Initial Study in compliance with CEQA has been conducted for the proposed project and has concluded that the Project will not have a

significant adverse impact on the environment with incorporation of, and adherence to, the recommended mitigation measures, which have been incorporated into Conditions of Approval.

The preparation of the Initial Study was directed and supervised by County staff and all analysis was reviewed for adequacy under the California Environmental Quality Act (CEQA). During deliberations, findings of the MND have been considered in decision-making. Adoption of the Mitigated Negative Declaration is part of the recommended project actions.

EXHIBIT B

Renewable Energy Findings

SunEdison White Road Solar Project, Phelan, CA

P201300250

Findings per Development Code Section 84.29.035

Per Development Code Section 84.29.035, the following are the required findings that the reviewing authority must determine to be true before approving a commercial solar energy generation facility. In making these findings of fact, the Planning Commission has considered: (1) the characteristics of the commercial solar energy facility development site and its physical and environmental setting, as well as the physical layout and design of the proposed development in relation to nearby communities, neighborhoods, and rural residential uses; and (2) the location of other commercial solar energy generation facilities that have been constructed, approved, or applied for in the vicinity, whether within a city or unincorporated territory, or on state or federal land. The project's consistency with each finding is described:

- 1. The proposed commercial solar energy generation facility is either (a) sufficiently separated from existing communities and existing/developing rural residential areas so as to avoid adverse effects, or (b) of a sufficiently small size, provided with adequate setbacks, designed to be lower profile than otherwise permitted and sufficiently screened from public view so as to not adversely affect the desirability and future development of communities, neighborhoods, and rural residential use.**

Project Consistency: Measures have been incorporated into the project design to minimize impacts on adjacent areas. These include: 1) Setbacks greater than the required setbacks to minimize impacts to adjacent properties. 2) A 26-foot-wide perimeter access road will be constructed along the eastern side of the project site, providing additional setback area. 3) Proposed solar panels would be a maximum of 12 feet in height, but typically only 8 to 9 feet tall, when the panels are at their maximum tilt, which is lower than typical single-story residences in the area and substantially lower than the maximum height (50 feet) allowed by existing zoning (Institutional (IN)). 4) Within the project setbacks, desert vegetation will be preserved, planted and/or relocated to assist in visually screening planned equipment.

The facility setbacks and buffering measures outlined will reduce project impacts and the project will, thus, not significantly affect the aesthetics of the adjacent properties. The proposed facility will also be able to connect to existing electrical infrastructure and not require upgraded lines to accommodate the electricity generated onsite.

In addition, environmental analysis conducted of the proposed project determined that the proposed facility would not have any significant adverse impacts, with recommended mitigation measures which have been incorporated as Conditions of Approval. Mitigation measures address light and glare, air quality, biological resources, cultural resources, and noise,

- 2. Proposed fencing, walls, landscaping and other perimeter features of the proposed commercial solar energy generation facility will minimize the visual impact of the project so as to blend with and be subordinate to the environment and character of the area where the facility is to be located.**

Project Consistency: Several project design features, as noted above, will act to minimize visual impacts. These include perimeter buffer areas, which are mostly undeveloped, along the boundaries between the project site boundary and fence lines. These areas will retain existing desert vegetation and be enhanced with relocated vegetation to visually screen the fencing and solar facility. All areas adjacent to site boundaries will have 26-foot wide perimeter access roads along the facility fence, which assists in providing a visual buffer. The entire area from the project site boundary to the first set of panels, approximately 70 feet, also serves to reduce the visual impact of the project. The proposed chain link fencing is consistent in type with that of other rural properties in the area and within the maximum allowed height. Collectively, these measures will minimize visual impacts. Immediately adjacent properties will, however, experience altered views in some cases.

The density of development in the area is very low, with scattered homes and other uses. The project site is flat and contains no significant geological or vegetation features that could be considered scenic. None of the proposed onsite equipment would obstruct any viewsheds in the area. Overall, the project is largely obscured from view of adjacent residences by natural vegetation common to the area. Consequently, the proposed facility would blend with and be subordinate to the environment and character of the area.

- 3. The siting and design of the proposed commercial solar energy generation facility will either be: (a) unobtrusive and not detract from the natural features, open space and visual qualities of the area as viewed from communities, rural residential uses, and major roadways and highways or (b) located in such proximity to already ‘disturbed’ lands -- such as electrical substations, surface mining operations, landfills, wastewater treatment facilities, etc. that it will not further detract from the natural features, open space and visual qualities of the area as viewed from communities, rural residential uses, and major roadways and highways.**

Project Consistency: The project has been designed to be minimally obtrusive to the surrounding community through the incorporation of buffers, retention of existing and relocation of desert landscaping, low panel profiles and minimal lighting. Setbacks allowing existing vegetation to be preserved and to screen a substantial portion of the facility are proposed. The relatively low height of panels minimizes the visibility of project equipment beyond the immediate site vicinity; therefore, the project will not detract from the visual qualities of the surrounding area. The project site is also located in a somewhat “disturbed” area

with an existing abandoned single family residence to the southwest and existing infrastructure (e.g., power lines and roads) abutting the site for the project's use.

4. **The siting and design of project site access and maintenance roads have been incorporated in the visual analysis for the project and shall minimize visibility from public view points while providing needed access to the development site.**

Project Consistency: The site incorporates access points directly off of White Road, an unimproved roadway along the east side of the project, and would thus not require any roadway extensions that could produce negative visual impacts.

5. **The proposed commercial solar energy generation facility will not adversely affect the feasibility of financing infrastructure development in areas planned for infrastructure development or will be located within an area not planned for future infrastructure development (e.g., areas outside of water agency jurisdiction).**

Project Consistency: The solar facility will be unmanned and will not require connection to water or sewer facilities. No infrastructure development is planned at the site or immediately adjacent to the site as part of the project. No element of the proposed project is expected to impact the feasibility of financing infrastructure development for the local area.

6. **The proposed commercial solar energy generation facility will not adversely affect to a significant degree the availability of groundwater supplies for existing communities and existing and developing rural residential areas.**

Project Consistency: The project will not be connected to the local water system for project operations. Construction water will be purchased at the going rate from a variety of sources that have sufficient water supply to allow for water sales and delivered to the project site. Construction water use is estimated to be a maximum of 8,000 gallons per day (gpd) during grading and 2,500 gpd during other activities. This would result in the use of an estimated 1.2 acre-feet of water over the approximate 4.5-month construction period. Similarly, water used during operations for cleaning the panels would be purchased and delivered to the site. Water use during operations would be less than $\frac{1}{4}$ acre-foot per year. By comparison, the expected project water use is insignificant and will not affect underground supplies.

7. **The proposed commercial solar energy generation facility will minimize site grading, excavating, and filling activities by being located on land where the existing grade does not exceed an average of five (5) percent across**

the developed portion of the project site, and by utilizing construction methods that minimize ground disturbance.

Project Consistency: The project site has an average grade of less than 5 percent, and construction activities would minimize grading. Overall grading of the site for the project will not significantly change the site contouring as the site is relatively flat.

- 8. The proposed commercial solar energy generation facility is located in proximity to existing electrical infrastructure such as transmission lines, utility corridors and roads such that: (a) minimal ground disturbance and above ground infrastructure will be required to connect to the existing transmission grid, (b) new electrical generation tie lines have been co-located on existing power poles whenever possible, and (c) existing rights-of-way and designated utility corridors will be utilized to the extent practicable.**

Project Consistency: The project site is located adjacent to power lines on White Road. Interconnection will occur along White Road. Existing power poles are present at this location. No new off-site power line poles are needed.

- 9. The proposed commercial solar energy generation facility will be sited so as to avoid or minimize impacts to the habitat of special status species, including threatened, endangered, or rare species, Critical Habitat Areas as designated by the U.S. Fish and Wildlife Service, important habitat/wildlife linkages or areas of connectivity designated by County, State or Federal agencies, and areas of Habitat Conservation Plans or Natural Community Conservation Plans that discourage or preclude development.**

Project Consistency: The Biological Resources Assessment contained in the Initial Study/Mitigated Negative Declaration, determined there would be no significant impact to protected habitats or species, following the implementation of mitigation measures related to burrowing owls and nesting birds, which have been incorporated as Conditions of Approval. The site is not within a Critical Habitat Area, a designated important habitat/wildlife linkage or area of connectivity, or within a Habitat Conservation Plan or Natural Community Conservation Plan area.

- 10. Adequate provision has been made to maintain and promote native vegetation and avoid the proliferation of invasive weeds during and following construction.**

Project Consistency: The project will not cause or encourage the growth of invasive weeds during or following construction. The project will involve grubbing, which will remove and destroy existing invasive species on the site. As deemed feasible during construction, native plants will be transplanted to perimeter areas on the site during construction.

- 11. The proposed commercial solar energy generation facility will be located so as to avoid or mitigate impacts to significant cultural and historic resources, as well as sacred landscape s.**

Project Consistency: The Cultural Resources Assessment prepared for the project contained in the Initial Study/Mitigated Negative Declaration, determined there would be no impact to cultural resources as none were identified on the site, in literature reviews, or in a field survey. American Indian tribes were also contacted regarding the proposed project, and no concerns were expressed with the proposed use of the property.

- 12. The proposed commercial solar energy generation facility will be designed in a manner that does not impede flood flows, avoids substantial modification of natural water courses, and will not result in erosion or substantially affect area water quality.**

Project Consistency: The project site minimizes impacts to stormwater flows by preserving the existing drainage through the site. See #13 for a discussion on flooding.

- 13. The proposed commercial solar energy generation facility will not be located within a floodway designated by the Federal Emergency Management Agency (FEMA), has been evaluated for flood hazard impacts pursuant to Chapter 82.14 of the Development Code, and will not result in increased flood hazards to upstream or downstream properties.**

Project Consistency: The project site is not located within a 100-year floodplain or in a known floodway. The Hydrology Report prepared for the project and summarized in the Initial Study/Mitigated Negative Declaration, calculated the increased runoff volume resulting from the proposed project to be 0.14 acre-feet, which is deemed negligible, and would not increase off-site flooding hazards.

- 14. All on-site solar panels, switches, inverters, transformers and substations will be located at least one foot above the base flood elevation as shown on the Flood Insurance Rate Maps.**

Project Consistency: No portion of the site is within a 100-year flood zone, and therefore no established base flood elevations exist for the area. The Hydrology Report prepared for the project and summarized in the Initial Study/Mitigated Negative Declaration, estimated that increased runoff volume resulting from the proposed project is considered negligible.

- 15. For development sites proposed on or adjacent to undeveloped alluvial fans, the commercial solar energy generation facility has been designed to**

avoid potential channel migration zones as demonstrated by a geomorphic assessment of the risk of existing channels migrating into the proposed development footprint, resulting in erosion impacts.

Project Consistency: The project site is not located on an undeveloped alluvial fan. It is located in an area that has rural development, including homes, roads, and other structures.

16. For proposed facilities located on prime agricultural soils or land designated by the California Farmland Mapping and Monitoring Program as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, where use of the land for agricultural purposes is feasible, the proposed commercial solar energy generation facility will not substantially affect the agricultural viability of surrounding lands.

Project Consistency: The project is not located on Important Farmland, as mapped by the State.

17. If the proposed site is subject to a Williamson Act contract, the proposed commercial solar energy generation facility is consistent with the principles of compatibility set forth in California Government Code Section 51238.1.

Project Consistency: The project site is not subject to a Williamson Act contract.

18. The proposed commercial solar energy generation facility will not preclude access to significant mineral resources.

Project Consistency: The project site is not located in an area of known, significant mineral resources. Additionally, solar energy generation is considered an interim land use (with a limited-term contract with a utility) and is expected to be removed after its contractual lifetime.

19. The proposed commercial solar energy generation facility will avoid modification of scenic natural formations.

Project Consistency: The project site is located on flat land, which does not contain any unique landforms or other scenic resources.

20. The proposed commercial solar energy generation facility will be designed, constructed, and operated so as to minimize dust generation, including provision of sufficient watering of excavated or graded soil during construction to prevent excessive dust. Watering will occur at a minimum of three (3) times daily on disturbed soil areas with active operations,

unless dust is otherwise controlled by rainfall or use of a dust palliative, or other approved dust control measure.

Project Consistency: The project will apply dust control measures in compliance with Mojave Desert Air Quality Management District (MDAQMD) regulations. The Initial Study/Mitigated Negative Declaration assessed potential air quality impacts, and incorporated a mitigation measure requiring preparation and implementation of a Dust Control Plan, which will require watering three times daily or other effective dust control methods. Mitigation measures have been incorporated as Conditions of Approval.

21. All clearing, grading, earth moving, and excavation activities will cease during period of winds greater than 20 miles per hour (averaged over one hour), or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures, or neighboring property, and in conformance with Air Quality Management District (AQMD) regulations.

Project Consistency: The project will apply dust control measures in compliance with MDAQMD regulations. The Initial Study/Mitigated Negative Declaration assessed potential air quality impacts, and incorporated a mitigation measure requiring preparation and implementation of a Dust Control Plan, which will require activities on unpaved surfaces cease when wind speeds exceed 20 miles per hour. Mitigation measures have been incorporated as Conditions of Approval.

22. For sites where the boundary of a new commercial solar energy generation facility is located within one-quarter mile of a primary residential structure, an adequate wind barrier will be provided to reduce potentially blowing dust in the direction of the residence during construction and ongoing operation of the commercial solar energy generation facility.

- a) *Project Consistency:* The project will apply dust control measures in compliance with MDAQMD regulations. The Initial Study/Mitigated Negative Declaration assessed potential air quality impacts, and incorporated a mitigation measure requiring preparation and implementation of a Dust Control Plan, which will require exposed soils and haul roads to be watered three times per day to reduce fugitive dust during all grading/construction activities. Inactive areas will be treated with soil stabilizers such as hay bales or aggregate cover. Street sweeping will be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles. Site access driveways and adjacent streets will be washed daily if there are visible signs of any dirt track-out at the conclusion of any workday. Construction vehicle tires will be washed prior to leaving the project site. All trucks hauling dirt away from the site will be covered, and speeds on unpaved roads will be reduced below 15 miles per hour. During high wind conditions (i.e., wind speeds exceeding 25 mph), areas with

disturbed soil will be watered hourly and activities on unpaved surfaces will cease until wind speeds no longer exceed 25 mph. Storage piles that are to be left in place for more than three working days will either be sprayed with a non-toxic soil binder, covered with plastic or revegetated. In addition, Condition of Approval # 47 requires a wind barrier of fence slats or similar barrier to be provided along any property boundary within ¼ mile of a residential structure.

23. Any unpaved roads and access ways will be treated and maintained with a dust palliative or graveled or treated by another approved dust control method to prevent excessive dust and paving requirements will be applied pursuant to Chapter 83.09 of the Development Code.

Project Consistency: The project will apply dust control measures in compliance with MDAQMD regulations. The Initial Study/Mitigated Negative Declaration assessed potential air quality impacts, and incorporated a mitigation measure requiring preparation and implementation of a Dust Control Plan, which will contain measures to ensure dust generation is controlled, such as watering and the use of soil stabilizers.

24. On-site vehicle speed will be limited to 15 miles per hour.

Project Consistency: The project will apply dust control measures in compliance with MDAQMD regulations. The Initial Study/Mitigated Negative Declaration assessed potential air quality impacts, and incorporated a mitigation measure requiring preparation and implementation of a Dust Control Plan, which will contain measures to limit vehicle speeds on unpaved roads to 15 miles per hour, as appropriate.

25. For proposed commercial solar energy generation facilities within two (2) miles of the Joshua Tree National Park boundaries, the location, design, and operation of the proposed commercial solar energy generation facility will not be a predominant visual feature along the main access roads to the park (Park Boulevard and Utah Trail), nor will it substantially impair views from hiking/nature trails, campgrounds, and backcountry camping areas within the National Park.

Project Consistency: The project site is not within two miles of Joshua Tree National Park.

26. For proposed facilities within two (2) miles of the Mojave National Preserve boundaries, the location, design, and operation of the proposed commercial solar energy facility will not be a predominant visual feature of, nor substantially impair views from, hiking and backcountry camping areas within the National Preserve.

Project Consistency: The project site is not within two miles of Mojave National Preserve.

- 27. For proposed facilities within two (2) miles of Death Valley National Park boundaries, the location, design, and operation of the proposed commercial solar energy facility will not be a predominant visual feature of, nor substantially impair views from, hiking and backcountry camping areas within the National Park.**

Project Consistency: The project site is not within two miles of Death Valley National Park.

- 28. For proposed facilities within two (2) miles of the boundaries of a designated wilderness area, the location, design, and operation of the proposed commercial solar energy facility will not be a predominant visual feature of, nor substantially impair views from, the designated wilderness area.**

Project Consistency: The project site is not within two miles of any designated wilderness area. The nearest designated wilderness area is the Sheep Mountain Wilderness, located approximately 10 miles to the southwest, in the Angeles National Forest.

- 29. For proposed facilities within two (2) miles of the boundaries of any active military base, the location, design, and operation of the proposed commercial solar energy facility will not substantially impair the mission of the facility.**

Project Consistency: The project site is not within two miles of any active military base. The nearest active military base is Edwards Air Force Base, approximately 30 miles to the northwest.

- 30. When located within a city's sphere of influence, in addition to other County requirements, the proposed commercial solar energy facility will also be consistent with relevant city zoning requirements that would be applied to similar facilities within the city.**

Project Consistency: The project site is not within any city's sphere of influence.

- 31. On terms and in an amount acceptable to the Director, adequate surety is provided for reclamation of commercial solar energy facility sites should energy production cease for a continuous period of 180 days and/or if the site is abandoned.**

Project Consistency: Decommissioning of the site will occur in compliance with Development Code Section 84.29.070, which requires removal of site facilities when operations cease. A removal surety bond equal to 120 percent of the cost of removal (as estimated by a civil engineer) is required as a Condition of Approval.

EXHIBIT C

Conditions of Approval

CONDITIONS OF APPROVAL

GENERAL REQUIREMENTS

Conditions of Operation and Procedure

[Not subject to Condition Compliance Release Form (CCRF) signatures]

LAND USE SERVICES – Planning Division (760) 995-8140

1. Project Approval Description. This Conditional Use Permit (CUP) project is approved to be constructed and operated in compliance with the San Bernardino County Code (SBCC), California Building Codes (CBC), the following conditions of approval, the approved site plan, and all other required and approved reports and displays (e.g., elevations). This CUP project is approved to establish a 5.8-megawatt (MW) commercial solar power generation facility located on a 34 acre portion of an approximately 50 acre site. The arrays of PV panels will either be mounted on fixed tilt or single-axis tracking systems and will have a maximum height of 12 feet. Each solar module shall be installed to the ground surface via driven piles resulting in minimal disturbance to topsoil and allowing retention of much of the on-site vegetation. The project site will be surrounded by an eight-foot high chain link fence. No barbed wire or other sharp pointed material shall be allowed. Any proposed change to this Project Description including maximum height and/or tracking systems shall require a Revision to an Approved Action application to be filed with County Planning. The developer of any approved commercial solar energy generation facility shall maintain a Special Use Permit and pay public safety services impact fees on an annual basis in compliance with SBCC §84.29.040.

The developer shall provide a copy of the approved conditions and the site plan to every current and future project tenant, lessee, and property owner to facilitate compliance with these conditions of approval and continuous use requirements for the Project Site with APN: 3065-561-07 and Project Number: P201300250.

2. Project Location. The project site is in the unincorporated community of Phelan in the First Supervisorial District of the County of San Bernardino (County) on the west side of White Road, south of Nielson Road and north of Muscatel Road.
3. Zoning Standards. The project site is located in the Desert Region, Phelan/Pinon Hills Community Plan Area within the Institutional (IN) Land Use Zoning District. Development Standards are listed in SBCC Chapter 82.06.
4. Facility Design. The facility design shall incorporate the following guidelines:
 - The applicant shall arrange the arrays in a logical, orderly manner and pattern.
 - The applicant shall maintain the panels, inverters, and transformers so that electrical interference will not affect adjacent properties.

- The applicant shall perform any repairs or upgrades to the components of the solar power facility at such times and in such a manner that noise and glare will not be significantly disruptive to adjacent properties, roads, or traffic.
5. Continuous Maintenance. The project property owner shall continually maintain the property so that it is not dangerous to the health, safety, and general welfare of both on-site users (e.g. employees) and surrounding properties. The developer shall ensure that all facets of the development are regularly inspected, maintained and that any defects are timely repaired. The elements to be maintained, include but are not limited to:
- Annual maintenance and repair inspections shall be conducted for all structures, fencing/walls, driveways, and signs to assure proper structural, electrical, and mechanical safety.
 - Graffiti and debris shall be removed within 48 hours of notification.
 - Dust control measures shall be maintained on any undeveloped areas where landscaping has not been provided.
 - Erosion control measures shall be maintained to reduce water runoff, siltation, and promote slope stability.
 - Signage. All on-site signs, including posted area signs (e.g. "No Trespassing") shall be maintained in a clean readable condition at all times and all graffiti and vandalism shall be removed and repaired on a regular basis. Signs on the site shall be of the size and general location as shown on the approved site plan or subsequent County Planning-approved sign plan.
 - Fire Lanes. All markings required by the Fire Department, including "No Parking" designations and "Fire Lane" designations shall be clearly defined and shall be maintained in good condition at all times.
6. Performance Standards. The approved land uses shall operate in compliance with the general performance standards listed in the SBCC Chapter 83.01, regarding air quality, electrical disturbance, fire hazards (storage of flammable or other hazardous materials), heat, noise, vibration, and the disposal of liquid waste. In addition to these, none of the following shall be perceptible without instruments at any point outside the project boundaries at adjoining property lines:
- Odors: No offensive or objectionable odor.
 - Smoke: No smoke of a greater density than that described in No. 2 on the Ringelmann Chart, as published currently by the United States Bureau of Mines, shall be emitted from any project source.
 - Radiation: No dangerous amount of radioactive emissions.
 - Toxic Gases: No emission of toxic, noxious or corrosive fumes of gases.
 - Glare: No intense glare that is not effectively screened from view at any point outside the project boundary.
7. Revisions. Any proposed change to the approved use/activity on the site (e.g. from solar facility to other uses); or any increase in the developed area of the site or

expansion to the approved facilities, including changes to structures, tracking system, equipment, elevations, heights, signs, parking allocation, lighting, or a proposed change in the conditions of approval, including operational restrictions from those shown either on the approved site plan and/or in the conditions of approval shall require that an additional land use application (e.g. Revision to an approved Action) be approved by the County. The developer shall prepare, submit with fees, and obtain approval of the application prior to implementing any such revision or modification. (SBCC §86.06.070)

8. Continuous Effect/Revocation. All of the conditions of approval applied to this project shall be effective continuously throughout the operative life of the project for all approved structures and approved land uses/activities. Failure of the property owner or developer to comply with any or all of the conditions at any time may result in a public hearing and possible revocation of the approved land use, provided adequate notice, time, and opportunity is provided to the property owner, developer, or other interested party to correct the non-complying situation.
9. Developer Defined. The term “developer” as used in these conditions of approval for this project and for any development of this project site, includes all of the following: the applicant, the property owner, and any lessee, tenant or sub-tenant, operator and/or any other agent or other interested party of the subject project and/or project site and/or any heir or any other successor in interest in the project site or project land use by sale or by lease of all or of a portion of the project site or project land uses and/or any other right given to conduct any land use in any or all of the project structures or any area on the project site.
10. Indemnification. In compliance with SBCC §81.01.070, the developer shall agree to defend, indemnify, and hold harmless the County or its “indemnitees” (herein collectively the County’s elected officials, appointed officials [including Planning Commissioners], Zoning Administrator, agents, officers, employees, volunteers, advisory agencies or committees, appeal boards or legislative body) from any claim, action, or proceeding against the County or its indemnitees to attack, set aside, void, or annul an approval of the County by an indemnitee concerning the map or permit or any other action relating to or arising out of County approval, including the acts, errors, or omissions of any person and for any costs or expenses incurred by the indemnitees on account of any claim, except where such indemnification is prohibited by law. In the alternative, the developer may agree to relinquish such approval.

Any condition of approval imposed in compliance with the County Development Code or County General Plan shall include a requirement that the County acts reasonably to promptly notify the developer of any claim, action, or proceeding and that the County cooperates fully in the defense. The developer shall reimburse the County and its indemnitees for all expenses resulting from such actions, including

any court costs and attorney's fees, which the County or its indemnitees may be required by a court to pay as a result of such action.

At its sole discretion, the County may participate at its own expense in the defense of any such action, but such participation shall not relieve the developer of their obligations under this condition to reimburse the County or its indemnitees for all such expenses.

This indemnification provision shall apply regardless of the existence or degree of fault of indemnitees. The developer's indemnification obligation applies to the indemnitee's "passive" negligence but does not apply to the indemnitee's "sole" or "active" negligence or "willful misconduct" within the meaning of Civil Code Section 2782.

11. Local Labor. *The developer shall give preference to and employ San Bernardino County residents as much as practicable during construction and operation of the facility.*
12. Development Impact Fees. Additional fees may be required prior to issuance of development permits. Fees shall be paid as specified in adopted fee ordinances.
13. Project Account. The Job Costing System (JCS) account number is P201300250. This is an actual cost project with a deposit account to which hourly charges are assessed by various county agency staff (e.g. Land Use Services, Public Works, and County Counsel). Upon notice, the developer shall deposit additional funds to maintain or return the account to a positive balance. The developer is responsible for all expenses charged to this account. Processing of the project shall cease, if it is determined that the account has a negative balance and that an additional deposit has not been made in a timely manner. A minimum balance of \$1,000.00 shall be in the project account at the time of project approval and the initiation of the Condition Compliance Review. Sufficient funds shall remain in the account to cover all estimated charges that may be made during each compliance review. All fees required for processing shall be paid in full prior to final inspection, occupancy, and/or operation of each approved use in each approved structure or land use activity area. There shall be sufficient funds (\$500.00 minimum) remaining in the account to properly fund file closure and any other required post-occupancy compliance review and inspection requirements (e.g. landscape performance).
14. Expiration/CUP. This project permit approval shall expire and become void if it is not exercised within three years of the effective date of this approval, unless an extension of time is approved. The permit is deemed exercised when either:
 - The permittee has commenced actual construction or alteration under a validly issued Building Permit or

- The permittee has substantially commenced the approved land use or activity on the project site, for those portions of the project not requiring a Building Permit. (SBCC 86.06.060)

Occupancy of completed structures and operation of the approved exercised land use remains valid continuously for the life of the project and the approval runs with the land, unless one of the following occurs:

- Construction permits for all or part of the project are not issued or the construction permits expire before the structure is completed and the final inspection is approved.
- The land use is determined by the County to be abandoned or non-conforming.
- The land use is determined to be not operating in compliance with these conditions of approval, the County Code, or other applicable laws, ordinances, or regulations. In these cases, the land use may be subject to a revocation hearing and possible termination.

PLEASE NOTE: This will be the ONLY notice given of the expiration date. The developer is responsible for initiation of any Extension of Time application.

15. Extension of Time/CUP. Extensions of time to the expiration date (listed above or as otherwise extended) may be granted in increments each not to exceed an additional three years beyond the current expiration date. An application to request consideration of an extension of time may be filed with the appropriate fees no less than 30 days before the expiration date. Extensions of time may be granted based on a review of the application, which includes a justification of the delay in construction and a plan of action for completion. The granting of such an extension request is a discretionary action that may be subject to additional or revised conditions of approval or site plan modifications. (SBCC §86.06.060)
16. Condition Compliance. In order to obtain construction permits for grading, building, final inspection and/or tenant occupancy for each approved building, the developer shall process a Condition Compliance Release Form (CCRF) for each respective building and/or phase of the development through County Planning in accordance with the directions stated in the Approval letter. County Planning shall release their holds on each phase of development by providing to County Building and Safety the following:
 - Grading Permits – a copy of the signed CCRF for grading/land disturbance and two “red” stamped and signed approved copies of the grading plans.
 - Building Permits – a copy of the signed CCRF for building permits and three “red” stamped and signed approved copies of the final approved site plan.
 - Final Inspection – a copy of the signed CCRF for final inspection of each respective building, after an on-site compliance inspection by County Planning.
17. Additional Permits. The property owner, developer, and land use operator are all responsible to ascertain and comply with all laws, ordinances, regulations, and any

other requirements of Federal, State, County, and Local agencies as are applicable to the development and operation of the approved land use and project site. These include:

- a) FEDERAL: U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service
 - b) STATE: California Department of Fish and Wildlife, Mojave Desert Air Quality Management District, Colorado Regional Water Quality Control Board, California Energy Commission
 - c) COUNTY: Land Use Services – Planning/Building and Safety/Code Enforcement/Land Development, County Fire, Environmental Health Services, and Public Works
 - d) LOCAL: Phelan/Pinon Hills CSD
18. Lighting. Any lighting shall be maintained so that all lights are operating properly for safety purposes and shall not project onto adjoining properties or roadways. Lighting shall adhere to San Bernardino County Desert and Mountain night light regulations.
19. Clear Sight Triangle. Adequate visibility for vehicular and pedestrian traffic shall be provided at clear sight triangles at all 90-degree angle intersections of public rights-of-way and private driveways. All signs, structures, and landscaping located within any clear sight triangle shall comply with the height and location requirements specified by County Development Code (SBCC 83.02.030) or as otherwise required by County Traffic.
20. **Archaeological Resource Evaluation and Disposition**. If archaeological resources are encountered during implementation of the project, ground-disturbing activities will be temporarily redirected from the vicinity of the find. The archaeologist will be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find and determine appropriate treatment that may include the development and implementation of a data recovery investigation or preservation in place. All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the California Historic Resources Information System (CHRIS) San Bernardino Archaeological Information Center (SBAIC) at the San Bernardino County Museum in Redlands, California. The archaeologist will prepare a final report about the find to be filed with the Applicant/landowner and the CHRIS-SBAIC. The report will include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National Register of Historic Places and California Register of Historical Resources and CEQA. The Applicant, in consultation with the Lead Agency and archaeologist, will designate repositories in the event that resources are recovered. [MM CR-2]

21. **Human Remains.** If human remains are encountered unexpectedly during construction excavations and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance will occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action will be taken in dealing with the remains. The landowner will then undertake additional steps as necessary in accordance with CEQA Guidelines Section 15064.5(e) and PRC Section 5097.98. [MM CR-3]
22. **AQ/Construction and Operational Mitigation.** Operation of all off-road and on-road diesel vehicles/equipment shall comply with the County Diesel Exhaust Control Measures [SBCC §83.01.040 (c)] including but not limited to:
- a) Equipment/vehicles shall not be left idling for period in excess of five minutes
 - b) Engines shall be maintained in good working order to reduce emissions
 - c) Onsite electrical power connections shall be made available where feasible
 - d) Ultra low-sulfur diesel fuel shall be utilized
 - e) Electric and gasoline powered equipment shall substituted for diesel powered equipment where feasible
 - f) Signs shall be posted requiring all vehicle drivers and equipment operators to turn off engines when not in use.
 - g) All transportation refrigeration units (TRU's) shall be provided electric connections. [MM AQ-1]
23. **Noise Mitigation.** The developer will submit for review and obtain approval of an agreement letter that stipulates that all construction contracts/subcontracts contain as a requirement that the following noise attenuation measures be implemented:
- a) Noise levels of any project use or activity will be maintained at or below adopted County noise standards (SBCC 83.01.080). The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.
 - b) Exterior construction activities will be limited between 7 a.m. and 7 p.m. There will be no exterior construction activities on Sundays or National Holidays.
 - c) Construction equipment will be muffled per manufacturer's specifications. Electrically powered equipment will be used instead of pneumatic or internal combustion powered equipment, where feasible.
 - d) All stationary construction equipment will be placed in a manner so that emitted noise is directed away from sensitive receptors nearest the

project site. [MM N-1]

24. **Lighting Requirements.** The area of illumination from any lighting will be confined to within the site boundaries to minimize impacts to night sky views from surrounding properties. On-site lighting will be fully shielded, diffused, or directed in a manner to avoid glare directed at adjacent properties, roadways or any light spill into any wildland areas surrounding the site that might affect nocturnal animals. No light will project onto adjacent roadways in a manner that interferes with on-coming traffic. All lighting will be limited to that necessary for maintenance activities, security, and safety purposes. All signs proposed by this project will only be lit by steady, stationary, shielded light directed at the sign, by light inside the sign or by direct stationary neon lighting. [MM AES-1]

LAND USE SERVICES – Code Enforcement (760) 995-8140

25. **Enforcement.** If any County enforcement activities are required to enforce compliance with the conditions of approval, the property owner shall be charged for such enforcement activities in accordance with the County Code Schedule of Fees.
26. **Weed Abatement.** In conjunction with required permits, the applicant shall comply with San Bernardino County Desert Area Fire Hazard Abatement regulations [SBCC§ 23.031-23.043] and periodically clear the site of all non-complying vegetation. This includes removal of all Russian thistle (tumbleweeds).

LAND USE SERVICES – Building and Safety (760) 995-8140

27. **Walls.** Submit plans and obtain separate building permits for any required walls, retaining walls, or trash enclosures.
28. **Green Building.** All new buildings shall be designed to include the “Green Building Measures” as outlined in the California Green Building Standards Code.

PUBLIC HEALTH – Environmental Health Services [DEHS] (800) 442-2283

29. **Noise.** Noise level shall be maintained at or below County Standards, Development Code Section 83.01.080. For information, please call DEHS at 1-800-442-2283.

SAN BERNARDINO COUNTY FIRE – (760) 995-8190

30. **Jurisdiction.** The above referenced project is under the jurisdiction of the San Bernardino County Fire Protection District, herein “Fire Department”. Prior to any construction occurring on any parcel, the developer shall contact the Fire

Department for verification of current fire protection requirements. All new construction shall comply with the current Uniform Fire Code requirements and all applicable statutes, codes, ordinances, and standards of the Fire Department.

31. Expiration. Construction permits, including Fire Condition Letters, shall automatically expire and become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Suspension or abandonment shall mean that no inspection by the Department has occurred with 180 days of any previous inspection. After a construction permit or Fire Condition Letter, becomes invalid and before such previously approved work recommences, a new permit shall be first obtained and the fee to recommence work shall be one-half the fee for the new permit for such work, provided no changes have been made or will be made in the original construction documents for such work, and provided further that such suspension or abandonment has not exceeded one year. A request to extend the Fire Condition Letter or Permit may be made in writing PRIOR TO the expiration date justifying the reason that the Fire Condition Letter should be extended.
32. Additional Requirements. In addition to the Fire requirements stated herein, other requirements from the Solar Photovoltaic Installation Guideline from the California State Fire Marshal may arise at the time of field inspection.

LAND USE SERVICES – Land Development – Drainage (909) 387-8311

33. FEMA Flood Zone. The project is located within Flood Zone D according to FEMA Panel Number 6475H dated 8/28/08. Flood Hazards are undetermined in this area but possible.
34. Tributary Drainage. Adequate provisions should be made to manage the tributary off-site/on-site drainage flows around and through the site in a manner that will not adversely affect adjacent or downstream properties.
35. Natural Drainage. The natural drainage courses traversing the site shall not be occupied or obstructed.
36. Additional Drainage Requirements. In addition to drainage requirements stated herein, other on-site and/or off-site improvements may be required that cannot be determined from tentative plans at this time and would have to be reviewed after more complete improvement plans and profiles have been submitted to this office.
37. Continuous BMP Maintenance. The property owner/“developer” is required to provide periodic and continuous maintenance of all Best Management Practices (BMP) devices/facilities listed in the County approved Water Quality Management Plan (WQMP) for the project. This includes but is not limited to, filter material

replacement and sediment removal, as required to assure peak performance of all BMPs. Furthermore, such maintenance activity will require compliance with all Local, State, or Federal laws and regulations, including those pertaining to confined space and waste disposal methods in effect at the time such maintenance occurs.

38. BMP Enforcement. In the event the property owner/“developer” (including any successors or assigns) fails to accomplish the necessary BMP maintenance within five (5) days of being given written notice by County Public Works, then the County shall cause any required maintenance to be done. The entire cost and expense of the required maintenance shall be charged to the property owner and/or “developer”, including administrative costs, attorney’s fees and interest thereon at the rate authorized by the County Code from the date of the original notice to the date the expense is paid in full.

LAND USE SERVICES – Land Development– Roads (909) 387-8311

39. Road Standards. All required street improvements shall comply with the latest San Bernardino County Road Planning and Design Standards and the San Bernardino County Standard Plans.

PUBLIC WORKS – Solid Waste Management Division (909) 386-8701

40. Mandatory Commercial Recycling. Beginning July 1, 2012 all businesses defined to include a commercial or public entity that generates 4 or more cubic yards of commercial solid waste a week or is a multi-family residential dwelling of 5 units or more to arrange for recycling services. The County is required to monitor business recycling and will require the business to provide recycling information. This requirement is to assist the County in compliance with the recycling requirements of AB 341.

PRIOR TO ANY LAND DISTURBANCE OR ISSUANCE OF ANY GRADING PERMITS,
Completion of the following must occur, with CCRF signatures

LAND USE SERVICES – Building and Safety (760) 995-8140

41. Runoff. All runoff must be held to pre-development levels per Section 82.13.080 of the San Bernardino County Development Code.
42. Erosion and Sediment Control Plan. Applicant shall submit an erosion and sediment control plan and permit application to Building and Safety for review and approval prior to any land disturbance.
43. Grading Plans. If grading exceeds 50 cubic yards, plans are required to be submitted to and approved by Building Safety. Prior to issuance of a grading permit, a San Bernardino County Stormwater Management Plan is required.
44. NPDES Permit. A National Pollutant Discharge Elimination System (NPDES) permit – Notice of Intent (NOI) is required on all grading of one acre or more prior to issuance of a grading/construction permit. Contact the Regional Water Quality Control Board (RWQCB), Lahontan Region, for specifics.
45. RWQCB Permit. Prior to permit issuance, CONSTRUCTION projects involving one or more acres must be accompanied by a copy of the Regional Board permit letter with the WDID#. Construction activity includes clearing, grading, or excavation that results in the disturbance of at least one acre of land total.

LAND USE SERVICES – Planning (760) 995-8140

46. Landscape Buffers/Translocation Plan. The Developer shall provide landscaping buffers between the solar panel field and the adjacent properties in compliance with Chapter 83.10 of the County Development Code, at a minimum. To the greatest extent feasible, native vegetation that is removed due to construction shall be transplanted into the required setback areas in accordance with best nursery practices.
47. Adequate Wind Barrier. An adequate wind barrier of fence slats or similar wind barrier shall be installed along any property boundary within ¼ mile of a residential structure. Provide verification of compliance (i.e. material specification sheets, site photos showing installation, etc.) to the Planning Division prior to land disturbance.
48. AQ/Dust Control Plan. **The developer will prepare, submit and obtain approval from County Planning of a Dust Control Plan (DCP) consistent with MDAQMD guidelines and a letter agreeing to include in any construction**

contracts/subcontracts a requirement that project contractors adhere to the requirements of the DCP. The DCP will include the following elements to reduce dust production:

- a) Exposed soils and haul roads will be watered three (3) times per day to reduce fugitive dust during all grading/construction activities. Inactive areas will be treated with soil stabilizers such as hay bales or aggregate cover.
- b) Street sweeping will be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles.
- c) Site access driveways and adjacent streets will be washed daily, if there are visible signs of any dirt track-out at the conclusion of any workday.
- d) Construction vehicle tires will be washed prior to leaving the project site.
- e) All trucks hauling dirt away from the site will be covered, and speeds on unpaved roads will be reduced below 15 miles per hour. [MM AQ-2]

49. **Burrowing Owl Mitigation – Pre-Construction Surveys.** Within 14 days prior to ground disturbance, the Applicant will retain a qualified biologist to conduct burrowing owl surveys within the area to be disturbed. The survey will be performed by walking parallel transects spaced no more than 20 meters apart, and will be focused on detecting burrows that are occupied, or are suitable for occupation, by the burrowing owl. The results of the surveys, including graphics showing the locations of any active burrows detected and any avoidance measures required, will be submitted to the County of San Bernardino and the California Department of Fish & Wildlife within 14 days following completion of the surveys. If active burrows are detected, the following take avoidance measures will be implemented:

- If burrowing owls are observed using burrows on-site during the non-breeding season (September through January, unless determined otherwise by a qualified biologist based on field observations in the region), occupied burrows will be left undisturbed, and no construction activity will take place within 300 feet of the burrow where feasible (see below).
- If avoiding disturbance of owls and owl burrows on-site is infeasible, owls will be excluded from all active burrows through the use of exclusion devices placed in occupied burrows in accordance with California Burrowing Owl Consortium (1993) protocols. Specifically, exclusion devices, utilizing one-way doors, will be installed in the entrance of all active burrows. The devices will be left in the burrows for at least 48 hours to ensure that all owls have been excluded from the burrows. Each of the burrows will then be excavated by hand and/or mechanically and refilled to prevent reoccupation. Exclusion will continue until the owls have been successfully excluded from the disturbance area, as determined by a qualified biologist.

- Any active burrowing owl burrows detected on-site during the breeding season (February through August, unless determined otherwise by a qualified biologist based on field observations in the region), will not be disturbed. Construction activities will not be conducted within 300 feet of an active on-site burrow at this season. [MM BIO-1]

50. **Burrowing Owl Mitigation – Management Plan.** Prior to issuance of a grading permit, a habitat management plan for the burrowing owl will be developed. The plan will include provisions for protecting foraging habitat and replacing any active burrows from which owls may be passively evicted as allowed by Mitigation Measure BIO-1. At a minimum, the plan will include the following elements:

- If occupied burrows are to be removed, the plan will contain schematic diagrams of artificial burrow designs and a map of potential artificial burrow locations that would compensate for the burrows removed.
- All active on-site burrows excavated as described in Mitigation Measure BIO-1 will be replaced with suitable natural or artificial burrows within the preservation areas approved by the County of San Bernardino.
- Measures prohibiting the use of rodenticides during the construction process if any active on-site burrows are identified.
- The plan will ensure that adequate suitable burrowing owl foraging habitat is provided in proximity to natural or artificial burrows within off-site mitigation areas.

The Burrowing Owl Management Plan will be submitted to the County of San Bernardino and the California Department of Fish and Wildlife for review and approval prior to issuance of a grading permit for the Project. [MM BIO-2]

51. **Nesting Bird Mitigation – Pre-Construction Surveys.** Within 30 days prior to vegetation clearing or ground disturbance associated with construction or grading that would occur during the nesting/breeding season (February through August, unless determined otherwise by a qualified biologist based on observations in the region), the Applicant will retain a qualified biologist to determine if active nests of species protected by the Migratory Bird Treaty Act or the California Fish and Game Code are present within or adjacent to the disturbance zone or within 100 feet (300 feet for raptors) of the disturbance zone. The surveys will be conducted no more than seven days prior to initiation of disturbance work within active project areas. If ground disturbance activities are delayed, then additional pre-disturbance surveys will be conducted such that no more than seven days will have elapsed between the survey and ground disturbance activities. If ground disturbance will be phased across the project site, pre-disturbance surveys may also be phased to conform to the development schedule.

- If active nests are found, clearing and construction within 100 feet of the

- nest (or a lesser distance if approved by the U.S. Fish & Wildlife Service) will be postponed or halted, until the nest is vacated and juveniles have fledged, as determined by the biologist. Avoidance buffers will be established in the field with highly visible construction fencing or flagging, and construction personnel will be instructed on the sensitivity of nest areas. A qualified biologist will serve as a construction monitor during those periods when construction activities will occur near active nests to ensure that no inadvertent impacts on these nests occur.
- The results of pre-construction nesting bird surveys, including graphics showing the locations of any nests detected, and documentation of any avoidance measures taken, will be submitted to the County of San Bernardino and California Department of Fish & Wildlife within 14 days of completion of the pre-construction surveys or construction monitoring to document compliance with applicable state and federal laws pertaining to the protection of native birds. [MM BIO-3]
52. **Construction Monitoring.** A qualified archaeologist will be retained by the Applicant/landowner and approved by the reviewing agencies prior to the commencement of the project. The archaeologist will be on-call to monitor ground-disturbing activities and excavations on the project site following identification of potential cultural resources by project personnel. [MM CR-1]
53. **Pre-Construction Responsibilities.** A qualified paleontologist will be retained by the Applicant and approved by the County of San Bernardino prior to the implementation of the Proposed Project to execute a paleontological monitoring plan. A qualified paleontologist is defined here as a paleontologist meeting the qualifications established by the Society of Vertebrate Paleontologists. The paleontologist will:
- Review the grading study and coordinate with project engineers to become familiar with the proposed depths and patterns of grading across the project site.
 - Enter into a repository agreement with an accredited institution (such as the San Bernardino County Museum) before grading operations commence to ensure that an appropriate facility has been selected to curate any fossils encountered during the monitoring program. [MM PR-1]
54. **Construction Monitoring.** A paleontological monitor, supervised by the paleontologist, will monitor all project-related ground-disturbing activities that reach two meters (5.5 to 6 feet) or more in depth. Pile driving is not considered a ground-disturbing activity for the purposes of this mitigation measure. If fossils are found during ground-disturbing activities, the paleontological monitor will be empowered to halt those activities within 25

feet of the find to allow evaluation of the find and determination of appropriate treatment. [MM PR-2]

55. **Paleontological Resource Collection and Disposition.** The paleontological monitor and/or the paleontologist will collect all significant fossils encountered. All significant fossils will be stabilized and prepared to a point of identification and permanent preservation. The paleontologist will prepare a final report on the monitoring. If fossils were identified, the report will contain an appropriate description of the fossils, treatment, and curation. A copy of the report will be filed with the Applicant, the County of San Bernardino, and the San Bernardino County Museum, and will accompany any curated fossils. [MM PR-3]

PUBLIC WORKS – Surveyor (909) 387-8149

56. **Record of Survey.** The Site Plan shows bearings and distances that are not of record. A Record of Survey is required per Section 8762 of the Business and Professions Code. The following conditions are for the occasion where the monuments of record cannot be located and the boundary must be determined for construction purposes. A Record of Survey/Corner Record shall be filed in the following instances:
- Legal descriptions or construction staking based upon a field survey of the boundary or building setbacks.
 - Monuments set to mark the property lines.
 - Pursuant to applicable sections of the Business and Professions Code.
57. **Site Plan.** The Site Plan must be signed, sealed and dated by a person authorized to perform Land Surveying in this State per Section 8726 (c) & (g) and 8761 (b) & (d) of the Business and Professions Code.
58. **Monumentation.** If any activity on this project will disturb **any** land survey monumentation, including but not limited to vertical control points (benchmarks), said monumentation shall be located and referenced by or under the direction of a licensed land surveyor or registered civil engineer authorized to practice land surveying **prior** to commencement of any activity with the potential to disturb said monumentation, and a corner record or record of survey of the references shall be filed with the County Surveyor (Section 8771(b) Business and Professions Code).

PUBLIC WORKS – Traffic (909) 387-8186

59. **Maintenance Agreement.** The developer shall enter into a maintenance agreement with the Department of Public Works, Transportation Operations Division to ensure any County maintained roads utilized by construction traffic shall remain in acceptable condition during construction.

LAND USE SERVICES – Land Development – Drainage (909) 387-8311

60. Drainage Facility Design. A Registered Civil Engineer shall investigate and design adequate drainage facilities to intercept and conduct the off-site and on-site drainage flows around and through the site in a manner, which will not adversely affect adjacent or downstream properties, and shall submit a drainage study for review and approval. A \$520 deposit for drainage review will be collected upon submittal to the Land Development Division.
61. Permit. A permit, or authorized clearance, shall be obtained from the Land Development Division prior to issuance of a grading permit by County Building and Safety.
62. WQMP. A completed Water Quality Management Plan (WQMP) shall be submitted for review and approval obtained. A \$2,500 deposit for WQMP review will be collected upon submittal to the Land Development Division. Copies of the WQMP guidance and template can be found at: (http://www.sbcounty.gov/dpw/land/environmental_mgmt.asp)

PUBLIC WORKS – Solid Waste Management Division (909) 386-8701

63. C&D Plan – Part 1. The developer shall prepare, submit, and obtain approval from Solid Waste Management Division (SWMD) of a “Construction Waste Management Recycling Plan (C&D Plan), Part I”. The C&D Plan shall list the types and volumes of solid waste materials expected to be generated from grading and construction. The Plan shall include options to divert from landfill disposal materials for reuse or recycling by a minimum of 50 percent of total volume.

Upon completion of construction, the developer shall complete SWMD’s C&D Plan Part 2”. This summary shall provide documentation of diversion of materials including but not limited to receipts or letters from diversion facilities or certification regarding reuse of materials on site.

SAN BERNARDINO COUNTY FIRE – (760) 995-8190

63. Access. The development shall have a minimum of one point of vehicular access. This is for fire/emergency equipment access and for an evacuation route.
- Single Story Road Access Width: All buildings shall have access provided by approved roads, alleys and private drives with a minimum 26 foot unobstructed width and vertically to 14 feet 6 inches in height. Other recognized standards may be more restrictive by requiring wider access provisions.

- Multi-Story Road Access Width: Buildings three stories in height or more shall have a minimum access of 30 feet unobstructed width and vertically to 14 feet 6 inches in height.
64. Combustible Vegetation. Combustible vegetation shall be removed as follows:
- "Where the average slope of the site is less than 15% - Combustible vegetation shall be removed a minimum distance of 30 feet from all structures or to the property line, whichever is less.
 - "Where the average slope of the site is 15% or greater - Combustible vegetation shall be removed a minimum 100 feet from all structures or to the property line, whichever is less.

PRIOR TO ISSUANCE OF BUILDING PERMITS,
Completion of the following must occur, with CCRF signatures

LAND USE SERVICES – Land Development – Roads (909) 387-8311

65. Road Dedication/Improvement. The developer shall submit for review and obtain approval from the Land Use Services Department the following dedications, plans and permits for the listed required improvements, designed by a Registered Civil Engineer (RCE), licensed in the State of California. These shall be submitted to the Land Use Services Department, located at 385 N. Arrowhead Ave, San Bernardino CA 92415-0187. Phone: (909) 387-8311.

Nielson Road (1/4 Section Line – 88')

- Road Dedication. A 14 foot grant of easement is required to provide a half-width right-of-way of 44'.
- Curb Return Dedication. A 35 foot radius return grant of easement is required at the intersection of Nielson and White Road.

White Road (Section Line – 88')

- Road Dedication (East Property Line). A 14 foot grant of easement is required to provide a half-width right-of-way of 44'.
- Curb Return Dedication. A 35 foot radius return grant of easement is required at the intersection of White Road and Muscatel Street.
- Street Improvements. Design a 26' paved road section from the primary access point of the site to the nearest maintained paved road.
- Driveway Approach. Design driveway approach per San Bernardino County Standard 129A, and located per Standard 130.

Muscatel Street (Section Line – 88')

- Road Dedication (South Property Line). A 44 foot grant of easement is required to provide a half-width right-of-way of 44'.

Trinidad Road (1/16 Section Line – 60')

- Road Dedication. A 30 foot grant of easement is required to provide a half-width right-of-way of 30'.
- Curb Return Dedication. A 35 foot radius return grant of easement is required at the intersection of Trinidad and White Road.

66. Road Design. Road sections within and/or bordering the project site shall be designed and constructed to Desert Road Standards of San Bernardino County, and to the policies and requirements of the County Department of Public Works and in accordance with the Master Plan of Highways.
67. Street Improvement Plans. The developer shall submit for review and obtain approval of street improvement plans prior to construction.
68. Utilities. Final plans and profiles shall indicate the location of any existing utility facility or utility pole which would affect construction, and any such utility shall be relocated as necessary without cost to the County.
69. Encroachment Permits. Prior to installation of road and drainage improvements, a permit is required from County Public Works, Transportation Operations Division, Permit Section, (909) 387-8039, as well as other agencies prior to work within their jurisdiction.
70. Soils Testing. Any grading within the road right-of-way prior to the signing of the improvement plans shall be accomplished under the direction of a soils testing engineer. Compaction tests of embankment construction, trench back fill, and all sub-grades shall be performed at no cost to San Bernardino County and a written report shall be submitted to the Transportation Operations Division, Permits Section of County Public Works, prior to any placement of base materials and/or paving.
71. Open Roads/Cash Deposit. Existing County roads, which will require reconstruction, shall remain open for traffic at all times, with adequate detours, during actual construction. A cash deposit shall be made to cover the cost of grading and paving prior to issuance of road encroachment permit. Upon completion of the road and drainage improvement to the satisfaction of the Department of Public Works, the cash deposit may be refunded.
72. Transitional Improvements. Right-of-way and improvements (including off-site) to transition traffic and drainage flows from proposed to existing, shall be required as necessary.
73. Street Gradients. Road profile grades shall not be less than 0.5% unless the engineer at the time of submittal of the improvement plans provides justification to the satisfaction of County Public Works confirming the adequacy of the grade.

LAND USE SERVICES – Building and Safety (760) 995-8140

74. Erosion Control Devices. Prior to issuance of building permits, erosion control devices must be installed at all perimeter openings and slopes. No sediment is to leave the job site.

75. Installation of Erosion Control Devices. All erosion control planting, landscaping and devices shall be installed upon completion of rough grading.
76. Compaction Report. Upon completion of rough grading and prior to footing excavations, a compaction report shall be submitted to Building and Safety for review and approval.
77. Building Plans. Any building, sign, or structure to be constructed or located on site will require professionally prepared plans approved by the Building and Safety Division.

SAN BERNARDINO COUNTY FIRE – (760) 995-8190

78. Building Plans. No less than three complete sets of Building Plans shall be submitted to the Fire Department for review and approval.
79. Road Standards. All roads must be an all-weather driving surface or an aggregate base compacted to 85% to hold 75,000 pounds. Roads must have a 45' outside turning radius. Access roads must be a maximum of 600' apart. Perimeter roads must be no less than 26' wide and interior roads no less than 20' wide.
80. Street Sign. This project is required to have an approved street sign (temporary or permanent). The street sign shall be installed on the nearest street corner to the project. Installation of the temporary sign shall be prior any combustible material being placed on the construction site. Prior to final inspection and occupancy of the first structure, the permanent street sign shall be installed.

LAND USE SERVICES – Planning (760) 995-8140

81. Special Use Permit. The developer shall submit for review and gain approval for a Special Use Permit (SUP) from County Code Enforcement. Thereafter, the SUP shall be renewed annually subject to annual inspections. The annual SUP inspections shall review & confirm continuing compliance with the listed conditions of approval, including all mitigation measures. This comprehensive compliance review shall include evaluation of the maintenance of all storage areas, landscaping, screening and buffering. Failure to comply shall cause enforcement actions against the developer. Such actions may cause a hearing or an action that could result in revocation of this approval and imposition of additional sanctions and/or penalties in accordance with established land use enforcement procedures. Any additional inspections that are deemed necessary by the Code Enforcement Supervisor shall constitute a special inspection and shall be charged at a rate in accordance with the County Fee Schedule, including travel time, not to exceed three (3) hours per inspection. As part of this, the developer shall pay an annual public safety services impact fee in accordance with Code §84.29.040(d).

82. Decommissioning Requirements. In accordance with SBCC 84.29.060, Decommissioning Requirements, the Developer shall submit a Closure Plan to the Planning Division for review and approval. The Decommissioning Plan shall satisfy the following requirements:
- a) Closure Plan. Following the operational life of the project, the project owner shall perform site closure activities to meet federal, state, and local requirements for the rehabilitation and re-vegetation of the project Site after decommissioning. The applicant shall prepare a Closure, Re-vegetation, and Rehabilitation Plan and submit to the Planning Division for review and approval prior to building permit issuance. Under this plan, all aboveground structures and facilities shall be removed to a depth of three feet below grade, and removed off-site for recycling or disposal. Concrete, piping, and other materials existing below three feet in depth may be left in place. Areas that had been graded shall be restored to original contours unless it can be shown that there is a community benefit for the grading to remain as altered. Succulent plant species native to the area shall be salvaged prior to construction, transplanted into windrows, and maintained for later transplanting following decommissioning. Shrubs and other plant species shall be re-vegetated by the collection of seeds and re-seeding following decommissioning.
 - b) Closure Compliance. Following the operational life of the project, the developer shall perform site closure activities in accordance with the approved closure plan to meet federal, state, and local requirements for the rehabilitation and re-vegetation of the project site after decommissioning. Project decommissioning shall be performed in accordance with all other plans, permits, and mitigation measures that would assure the project conforms to applicable requirements and would avoid significant adverse impacts. These plans shall include the following as applicable:
 - Water Quality Management Plan
 - Erosion and Sediment Control Plan
 - Drainage Report
 - Notice of Intent and Stormwater Pollution Prevention Plan
 - Air Quality Permits
 - Biological Resources Report
 - Incidental Take Permit, Section 2081 of the Fish and Game Code
 - Cultural Records Report
 - The County may require a Phase 1 Environmental Site Assessment be performed at the end of decommissioning to verify site conditions.
83. Anti-Reflective/Diffusion Coatings. **Solar panels and hardware shall be designed to minimize glare and spectral highlighting. To the extent feasible, emerging technologies shall be utilized that introduce diffusion coatings and nanotechnological innovations that will effectively reduce the refractive index of the solar cells and protective glass. These technological advancements are intended to make the solar panels more efficient at converting incident**

sunlight into electrical power, but have the tertiary effect of reducing the amount of light that escapes into the atmosphere in the form of reflected light, which would be the potential source of glare and spectral highlighting. The developer shall submit for review and gain approval of technical specifications for the proposed coatings or other proposed methods to reduce glare and spectral highlighting prior to issuance of building permits. [MM AES-2]

PRIOR TO FINAL INSPECTION OR OCCUPANCY,
Completion of the following must occur, with CCRF signatures

SAN BERNARDINO COUNTY FIRE – (760) 995-8190

84. Haz-Mat Approval. The applicant shall contact the San Bernardino County Fire Department/Hazardous Materials Division (909) 386-8400 for review and approval of building plans, where the planned use of such buildings will or may use hazardous materials or generate hazardous waste materials.
85. Inspection by Fire Department. Permission to occupy or use the building (Certification of Occupancy or Shell Release) will not be granted until the Fire Department inspects, approves and signs off on the Building and Safety job card for "fire final".

COUNTY FIRE DEPARTMENT – Hazardous Materials Division (909) 386-8401

86. Emergency/Contingency Plan. Prior to occupancy, the operator shall submit a Business Emergency/Contingency Plan for emergency release or threatened release of hazardous materials and wastes or a letter of exemption. For information, contact the Office of the Fire Marshall, Hazardous Materials Division at (909) 386-8401.
87. Permits. Prior to occupancy, the applicant shall be required to apply for one or more of the following: a Hazardous Materials Handler Permit, a Hazardous Waste Generator Permit, and/or an Underground Storage Tank Permit. For information, contact the Office of the Fire Marshall, Hazardous Materials Division at (909) 386-8401.

PUBLIC WORKS – Solid Waste Management Division (909) 386-8701

88. C&D Plan – Part 2. The developer shall complete SWMD's C&D Plan Part 2". This summary shall provide documentation of diversion of materials including but not limited to receipts or letters from diversion facilities or certification reuse of materials on site. The C&D Plan – Part 2 shall provide evidence to the satisfaction of County Solid Waste that demonstrates that the project has diverted from landfill disposal materials for reuse or recycling by a minimum of 50 percent of total volume of all construction waste.

This summary shall provide documentation of diversion of materials including but not limited to receipts or letters documenting material types and weights from diversion facilities or certification reuse of materials on site.

LAND USE SERVICES – Land Development– Drainage (909) 387-8311

89. Drainage and WQMP Improvements. All required drainage and WQMP improvements shall be completed by the applicant, then inspected and approved by County Public Works.
90. WQMP Final File. An electronic file of the final and approved WQMP shall be submitted to the Land Development Division, Drainage Section.

LAND USE SERVICES – Land Development– Roads (909) 387-8311

91. Road Improvements. All required on-site and off-site improvements shall be completed by the applicant and inspected and approved by County Public Works.
92. Structural Section Testing. A thorough evaluation of the structural road section, to include parkway improvements, from a qualified materials engineer, shall be submitted to County Public Works.

PUBLIC WORKS – Traffic Division (909) 387-8186

93. Local Transportation Fees. This project falls within the High Desert Local Area Transportation Facilities Fee Plan. This fee shall be paid by cashier's check to the Department of Public Works Business Office. The High Desert Local Area Transportation Facilities Plan can be found at the following website:
http://www.sbcounty.gov/dpw/transportation/transportation_planning.asp
94. Maintenance Agreement. The developer shall comply with the maintenance agreement during construction if applicable and/or assure that all County maintained roads affected by the project during construction shall be restored to pre-construction condition. Please contact the County Department of Public Works, Transportation Operations Division at (909) 387-7995 for inspection prior to occupancy.

LAND USE SERVICES – Building and Safety (760) 995-8140

95. Final Occupancy/Use. Prior to occupancy/use, all Planning Division requirements and sign-offs shall be completed.

LAND USE SERVICES – Planning (760) 995-8140

96. CCRF/Occupancy. Prior to occupancy/use, all Condition Compliance Release Forms (CCRF) shall be completed to the satisfaction of County Planning with appropriate authorizing signatures from each affected agency.

97. **AQ – Installation.** The developer shall submit for review and obtain approval from County Planning evidence that all air quality mitigation measures have been installed properly and that specified performance objectives are being met to the satisfaction of County Planning and County Building and Safety. [MM AQ-3]
98. **Dust Control – Operation.** Prior to final inspection, the Applicant shall develop an Operational Dust Control Plan that shall be approved and implemented prior to energization of the solar facility. The Operational Dust Control Plan shall include Dust Control Strategies sufficient to ensure that areas within the project site shall not generate visible fugitive dust (as defined in Mojave Desert Air Quality Management District’s [MDAQMD’s] Rule 403.2) such that dust remains visible in the atmosphere beyond the property boundary. During high wind events, Dust Control Strategies shall be implemented so as to minimize the Project site’s contribution to visible fugitive dust beyond that observed at the upwind boundary.
99. **Removal Surety.** Surety in a form and manner determined acceptable to County Counsel and the Land Use Services Director shall be required for the closure costs and complete removal of the solar energy generating facility and other elements of the facility. The developer shall either:
- a) Post a performance or other equivalent surety bond issued by an admitted surety insurer to guarantee the closure costs and complete removal of the solar panels and other elements of the facility in a form or manner determined acceptable to County Counsel and the Land Use Services Director in an amount equal to 120% of the cost estimate generated by a licensed civil engineer and approved by the Land Use Services Director; OR
 - b) Cause the issuance of a certificate of deposit or an irrevocable letter of credit payable to the County of San Bernardino issued by a bank or savings association authorized to do business in this state and insured by the Federal Deposit Insurance Corporation for the purpose of guaranteeing the closure costs and complete removal of the solar panels and other elements of the facility in a form or manner determined acceptable to County Counsel and the Land Use Services Director in an amount equal to 120% of the cost estimate generated by a licensed civil engineer and approved by the Land Use Services Director.
100. **Installation of Improvements.** All required on-site and off-site improvements shall be installed.
101. **Payment of Fees.** Prior to final inspection by Building and Safety Division and/or issuance of a Certificate of Conditional Use by the Planning Division, the applicant shall pay in full all fees required under actual cost job number P201300250.

END OF CONDITIONS

EXHIBIT D

Initial Study/ Mitigated Negative Declaration

SAN BERNARDINO COUNTY INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

This form and the descriptive information in the application package constitute the contents of Initial Study pursuant to County Guidelines under Ordinance 3040 and Section 15063 of the State CEQA Guidelines.

PROJECT LABEL:

<p>APN: 3065-561-07</p> <p>Applicant: Mr. Ricardo Graf SunEdison, Authorized Representative of SunE CREST 5, LLC, SunE CREST 6, LLC, and SunE CREST 7, LLC 600 Clipper Drive Belmont, CA 94002 (415) 852-8344</p> <p>Community: Phelan</p> <p>Location: West of White Road, south of Nielson Road, and north of Muscatel Street</p> <p>Project No: P201300250</p> <p>Staff: Chris Conner, Senior Planner</p> <p>Rep: Mr. Jeremy Krout EPD Solutions, Inc. 450 Newport Center Drive, Suite 300 Newport Beach, CA 92660</p> <p>Proposal: Conditional Use Permit to establish an approximately 5.8-megawatt solar photovoltaic electricity generation facility on 50 acres.</p>	<p>USGS Quad: Phelan</p> <p>Lat/Long: 34°28'26"N/117°34'10"W</p> <p>T, R, Section: T5N R7W Sec. 36</p> <p>Thomas Bros P4383/GRID: B-7</p> <p>Community Plan: Phelan/Pinon Hills</p> <p>LUZD: PH/IN</p> <p>Overlays: FP3, FS-2, Biotic Resources</p>
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PROJECT CONTACT INFORMATION:

Lead agency: County of San Bernardino
Land Use Services Department
385 N. Arrowhead Avenue, 1st Floor
San Bernardino, CA 92415-0182

Contact person: Chris Conner, Senior Planner
Phone No: (909) 387-4425 **Fax No:** (909) 387-3223
E-mail: cconner@lUSD.sbcounty.gov

PROJECT DESCRIPTION:

SunEdison, authorized representative of SunE CREST 5, LLC, SunE CREST 6, LLC, and SunE CREST 7, LLC (applicant) proposes to construct and operate the White Road Solar (Project) facility, a 5.8-megawatt (MW) photovoltaic (PV) solar energy generation facility on approximately 34 acres (68%) of a 50-acre parcel owned by the Snowline Joint Unified School District (Snowline JUSD). The project site is located west of White Road, south of Nielson Road, and north of Muscatel Street in the Phelan community in unincorporated San Bernardino County (County).

The project area is situated within Section 36, Township 5 North, Range 7 West, S.B.B.&M. of the Phelan, CA USGS 7.5-minute topographic quadrangle at approximately Lat/Long 34°28'26"N/117°34'10"W (See **Figures 1 and 2**). Project site and surrounding area photographs are provided in **Figure 3**.

FIGURE 1: Vicinity Map

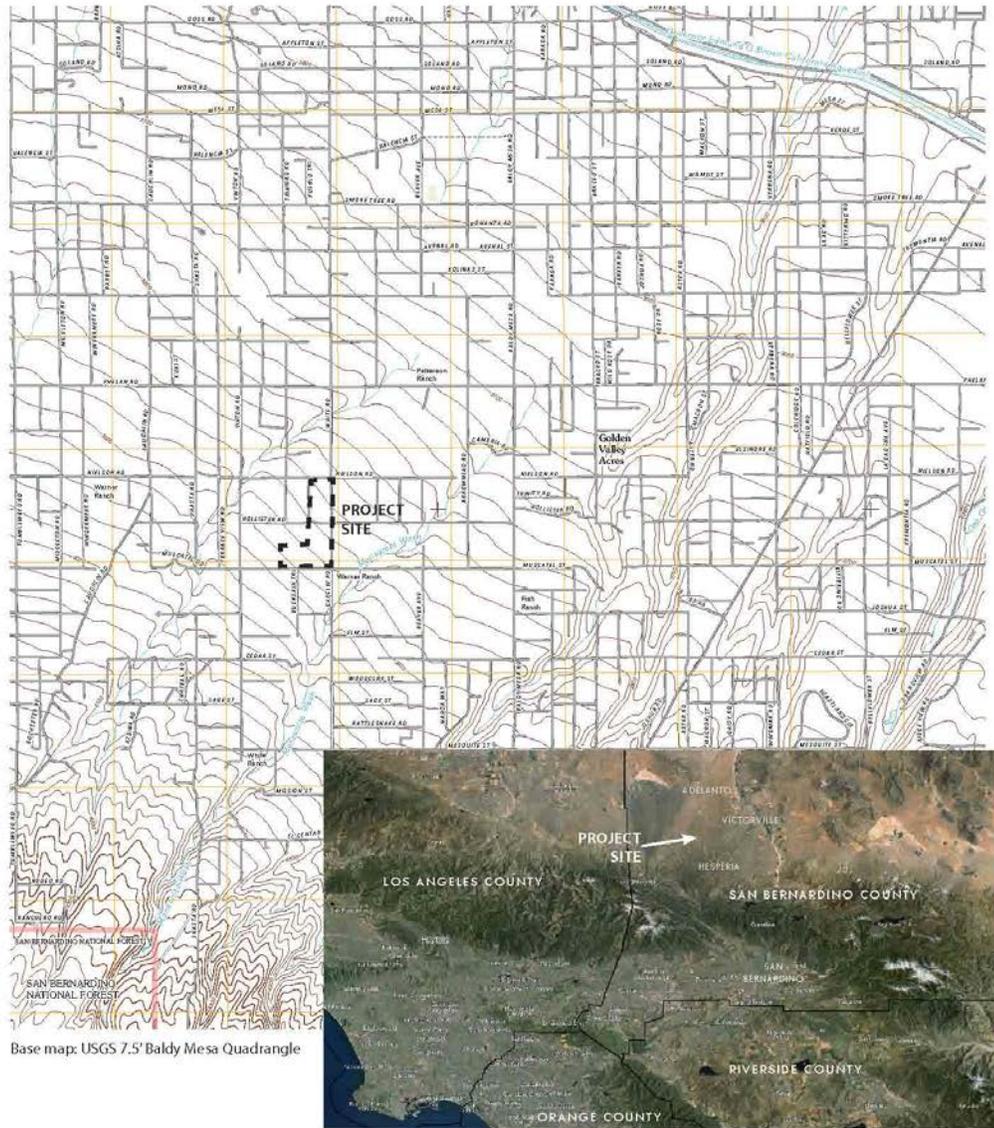
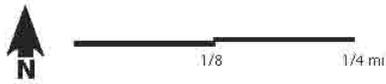


FIGURE 2: Local Area Map



White Road Solar
Initial Study/Mitigated Negative Declaration

Figure 2
Local Area Map

FIGURE 3: Site and Surrounding Photographs



Photo 1: View of site from northeast corner.



Photo 2: View of surrounding area from Phelan Road, north of site.



Photo 3: View of surrounding area from Phelan Road, northwest of site.



Photo 4: View of surrounding area from Cedar Street, south of site.



PROJECT SETTING

Regional Setting

The project site is located in the Mojave Desert region of San Bernardino County. The Mojave Desert comprises the County's Desert Planning Region, which contains 93 percent of San Bernardino County's land area. The Desert Planning Region consists of an assemblage of mountain ranges interspersed with long, broad valleys that often contain dry lakes. The local area of the project is the unincorporated community of Phelan. Land uses in this area consist primarily of vacant land interspersed with rural residential development. Other uses include small-scale commercial development, support services such as schools, and other public facilities.

Major transportation routes in the region include:

- State Route (SR) 138. This roadway, generally running northwest to southeast, is located 8.5 miles west of the project site via Phelan Road. Nearest the project site, it is a paved, four-lane undivided highway. Paved shoulders are present, but there are no sidewalks, curbs, or streetlights. The roadway is identified in the General Plan's Circulation and Transportation map as a Major Arterial Highway; this roadway classification is defined by the Development Code as a six-lane roadway with a minimum right-of-way of 120 feet.
- US 395. This north-south roadway runs 4 miles east of the site. Nearest the project site, it is a paved, two-lane undivided highway. There are no sidewalks, curbs, or streetlights. The roadway is identified in the General Plan's Circulation and Transportation map as a Freeway, with design standards determined by the California Department of Transportation (Caltrans). The Caltrans transportation concept report for US 395 calls for ultimate development of a 6-lane freeway along the stretch of highway nearest the project site.

The nearest freeway to the project site is Interstate 15 (I-15), located 4.5 miles to the east via Phelan Road. In addition to major roadways, the region contains numerous paved and unpaved local streets providing access to individual parcels.

There are no airports in the project vicinity. Hesperia Airport, a small, private airstrip, is located about 9 miles to the southeast and Southern California Logistics Airport is 13 miles to the northeast.

Local Setting

The area immediately surrounding the project site primarily consists of vacant land with desert vegetation intermingled with rural residential development. A total of 14 single-family residences are located within 500 feet of the project parcel.

Roadways in the project vicinity are unimproved. White Road, running along the eastern edge of the site, provides access to Phelan Road 0.5 mile north of the site, the nearest paved roadway. This roadway is designated in the Phelan/Pinon Hills Community Plan Circulation Map as a Major Arterial Highway, and provides a connection to SR-138, US 395, and I-15. There are no designated bicycle facilities in the project vicinity. San Bernardino Associated Governments long-range planning shows no such facilities planned or proposed in the area.

Public transportation services in the project vicinity are limited. The Victorville Valley Transit Authority operates service in the Phelan area. There are no fixed transit routes in the vicinity of the project site,

but “deviated” service from fixed routes is available by reservation. Such service provides access to regional destinations such as Victorville and Hesperia.

The project site is located within the Snowline Joint Unified School District (JUSD). Local schools serving the site include Baldy Mesa Elementary School, 1.6 miles to the northeast; Quail Valley Middle School, 1 mile to the northeast; and Serrano High School, 6 miles to the west.

Fire protection for the project site is provided by Division 2 of the San Bernardino County Fire Department (SBCFD). The nearest fire station is Baldy Mesa Station 16, located 3.5 miles to the northeast of the project site. This station houses Brush Patrol vehicles. Phelan Station 10, located 7 miles west of the project site, houses one Medic Ambulance and one Medic Engine (Type 1).

Police protection for the project site is provided by the San Bernardino County Sheriff-Coroner Department (SBCSD). The Phelan Substation, located 6 miles west of the project site, serves local area. The nearest medical facilities to the project site are Desert Valley Hospital and Victor Valley Hospital, each about 11 miles east in Victorville.

The project site is located within the Phelan Pinon Hills Community Services District (CSD). This CSD provides water service to 6,700 customers in a 128-square-mile service area. No sewer services are available in the project vicinity. All local properties use septic systems.

Existing Site Land Uses and Conditions

The site consists of one parcel covering about 50 acres. One single-family home and associated outbuildings and chain link fencing occupy the site. Dirt drives provide access to the home. Human disturbance is also evident in the form of mechanical disturbance of soil, vegetation removal, off road vehicle tracks, presence of dirt roads on some parts of the site, domestic dog “diggings” (dug out burrows), trash deposition, and the previously-noted presence of an unused building on the southern portion of the parcel.

County-maintained dirt roads within dedicated rights-of-way are present along the northern (Nielson Road), eastern (White Road), and southern (Muscatel Street) edges of the site. These streets do not have curbs, sidewalks, or street lighting.

The site slopes gently downward to the north, with an elevation change of about 50-60 feet (from 3,890 feet to 3,830 feet) over a distance of 0.5 mile. The soil type underlying the southerly portion of the site is Hesperia loamy fine sand, and underlying the northerly portion of the site is Cajon sand. Hesperia loamy fine sand is described as a very deep, well-drained soil formed in alluvium derived from granitic material; Cajon sand is a very deep, somewhat excessively drained soil found on alluvial fans and river terraces. Plant communities in the project area are predominantly a combination of Joshua Tree Woodland and Mojavean Juniper Woodland and Scrub. No drainages were observed on the project site.

According to data from the California Department of Conservation’s Farmland Mapping and Monitoring Program, the project site is classified as Grazing Land, which is not an Important Farmland category. The project site is not protected by Williamson Act or Farmland Security Zone contracts.

The applicable Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (unprinted panel No. 06071C6475H) indicates the site is within Zone D, meaning flood hazards for

the area have not been determined. Additional information is provided by local, County mapping; the site has an overlay of FP3 (Local Flood Data) in the County General Plan Land Use Plan's Hazard Overlays Map.

California Department of Forestry and Fire Protection (CAL FIRE) mapping shows the site to have a Moderate wildland fire hazard.

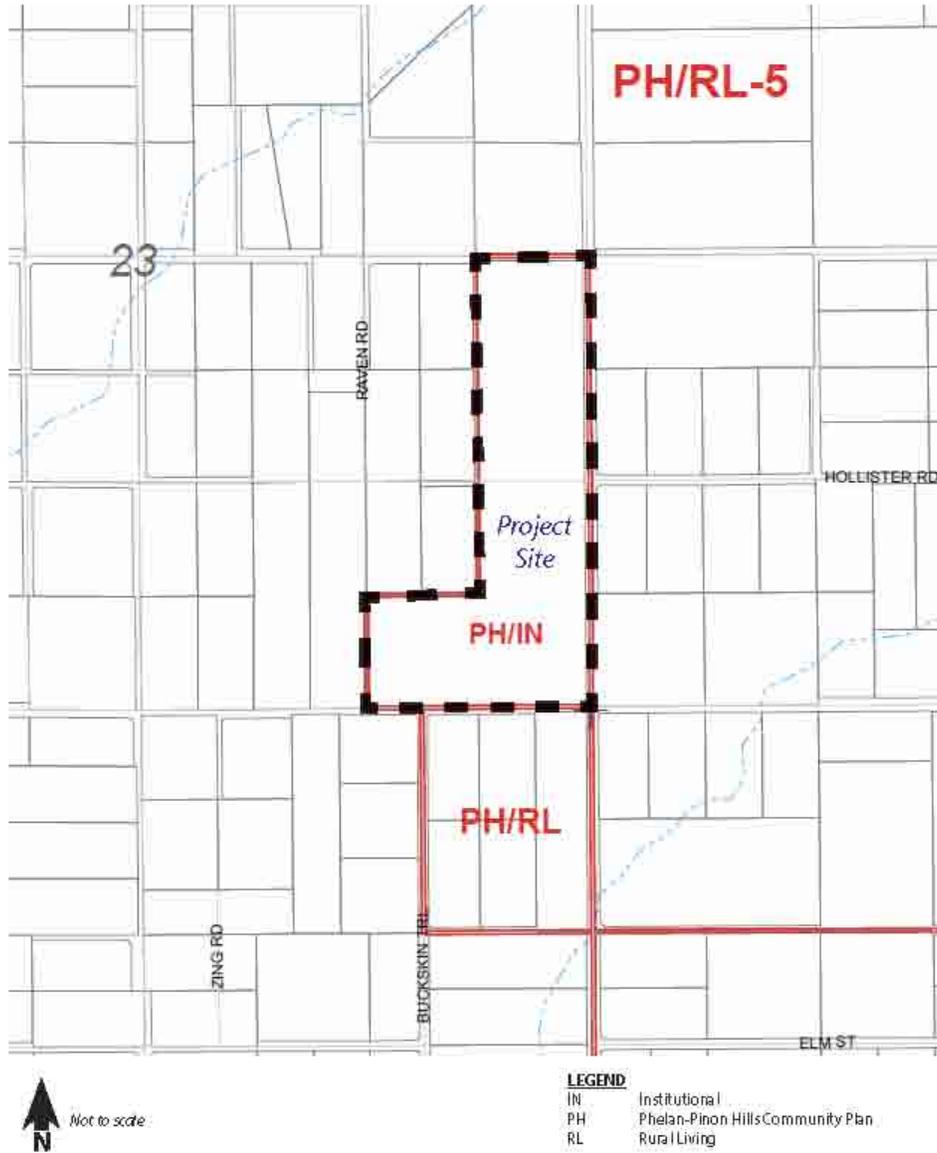
Existing General Plan Land Use Zoning Designations

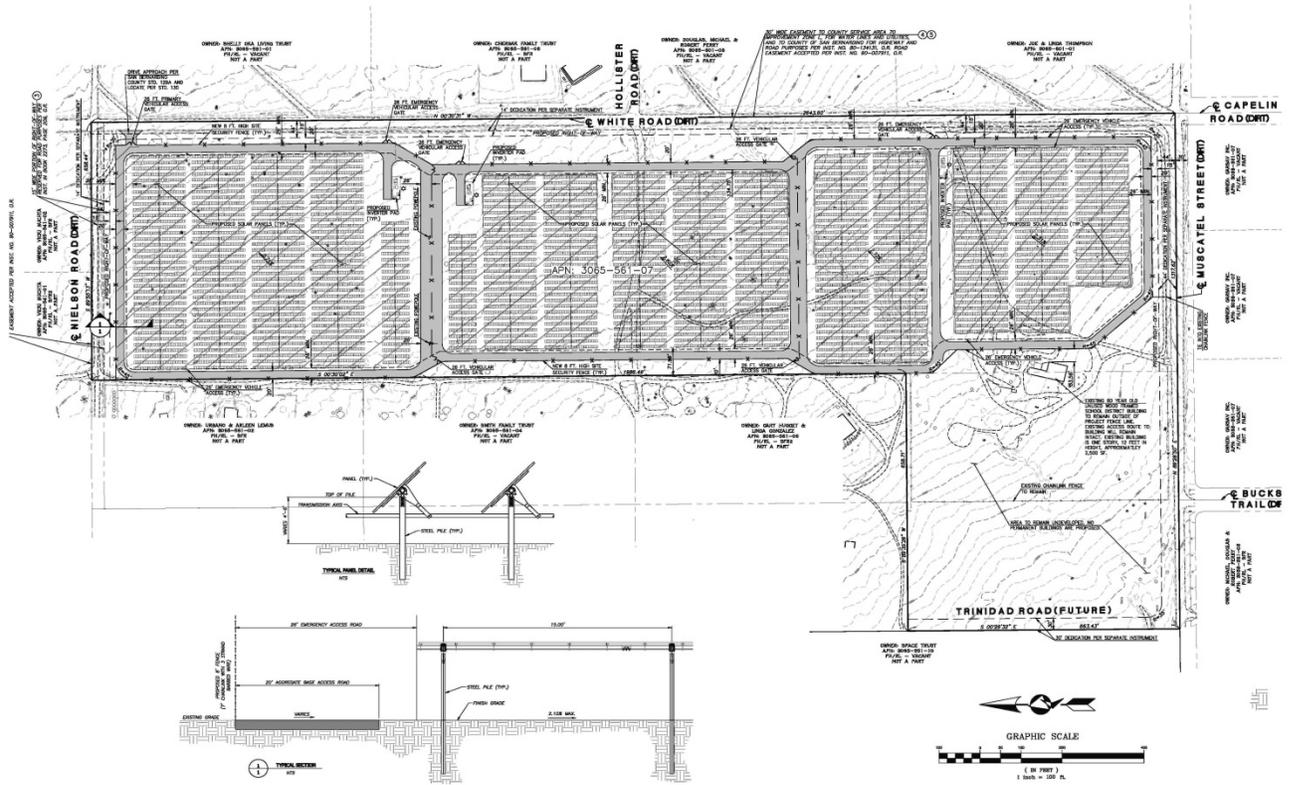
Land uses on the project site and surrounding parcels are governed by the Phelan/Pinon Hills Community Plan. Community plans are part of the General Plan, and allow for the establishment of focused goals, policies, and land uses for distinct regions of the County. The site's land use zoning designation is IN (Institutional). The IN district is intended to provide land for public facilities and public agency uses. There is currently an internal inconsistency within the Development Code as to the permissibility of solar power development within the IN zone. To rectify this, the County Board of Supervisors recently approved a Development Code Amendment confirming that solar power plants are conditionally permitted within the IN zone. This Code Amendment will take effect in January 2014.

As shown in **Table 1** and **Figure 4**, parcels surrounding the project site are within the RL (Rural Living) district. The RL district is primarily intended for residential land use development, and also conditionally permits commercial solar power generation.

Table 1: Existing Land Use and Land Use Zoning Districts		
Location	Existing Land Use	Land Use Zoning District
Project Site	Vacant land; one structure	IN (Institutional)
North	Rural residential; vacant lands	RL (Rural Living)
South	Rural residential; vacant lands	RL (Rural Living)
East	Rural residential; vacant lands	RL (Rural Living)
West	Rural residential; vacant lands	RL (Rural Living)

FIGURE 4: Existing Land Use Zoning Designations





White Road Solar
Initial Study/Mitigated Negative Declaration

Figure 5
Site Plan

PROJECT OVERVIEW

The proposed White Road Solar project is a 5.8-megawatt solar PV electricity generation facility on a 50-acre parcel. Once constructed, the facility would produce enough electricity to serve over 2,200 homes. Implementation of the project requires the approval of a CUP to permit a renewable energy facility.

Overview of Solar Technology

Solar cells, also called *PV cells*, convert sunlight into electricity. PV gets its name from the process of converting light (photons) to electricity (voltage), which is called the *PV effect*.

PV cells are located on *panels*, which may be mounted at a fixed angle facing south or on a tracking device that follows the sun, allowing them to capture the most sunlight. When panels are mounted on tracking devices, they are referred to as *trackers* or *tracker blocks*. The combination of solar panels into a single system creates a *solar array*. For large electric utility or industrial applications, hundreds of solar arrays are interconnected to form a large, utility-scale PV system.

Traditional solar cells are made from silicon, are usually flat-plate, and are generally the most efficient. Second-generation solar cells are called thin-film solar cells because they are made from amorphous silicon or non-silicon materials such as cadmium telluride. No panels incorporating cadmium telluride are proposed on the project site. Thin-film solar cells use layers of semiconductor materials only a few micrometers thick. Because of their flexibility, thin film solar cells can double as rooftop shingles and tiles, building facades, or the glazing for skylights.

Third-generation solar cells are being made from a variety of new materials besides silicon, including solar inks using conventional printing-press technologies, solar dyes, and conductive plastics. Some new solar cells use plastic lenses or mirrors to concentrate sunlight onto a very small piece of high-efficiency PV material. The PV material is more expensive, but because so little is needed, these systems are becoming cost-effective for use by utilities and industry. However, because the lenses must be pointed at the sun, the use of concentrating collectors is limited to the sunniest parts of the country.

The amount of the sun's heat absorbed by a solar panel is similar to the amount of the sun's heat absorbed by the earth. On the other hand, solar panels store less heat than the earth. A solar panel is thin – the glass is approximately 3 millimeters (0.12 inches) in thickness – lightweight, and surrounded by airflow (because it's mounted above the ground). Therefore, heat dissipates quickly from a solar panel. The normal operating condition temperature for solar panels would be 20 degrees Celsius (°C) or 68 degrees Fahrenheit (°F) above ambient temperature, and so a typical summer day at 40°C (104°F) results in panel temperatures of approximately 60°C (140°F). When accounting for irradiance, wind, and module type, it is expected that the peak module temperatures in the summer would be between 65°C and 70°C (149 and 158°F) and the peak module temperatures in the winter would be between 35°C and 40°C (95 and 104°F). Although the panels would be hot to the touch, they would not noticeably affect the temperature of the surrounding area; temperatures below the trackers would be nearly the same as ambient temperatures in the ordinary shade.

Project Objectives

The applicant's objectives for the proposed project are to:

- Develop a solar power generation project to help meet the increasing demand for clean, renewable electricity.
- Develop a solar power generation project that will help California meet its statutory and regulatory goal of increasing renewable power generation.
- Develop a solar power generation project that contributes to the California Renewables Portfolio Standard goal of 33 percent of California energy coming from renewable sources by the year 2020.
- Locate project facilities in an area that optimizes desirable solar project characteristics with minimum potential for environmental impacts.
- Minimize the length of project generation-tie (gen-tie) distribution lines to optimize connection to the electrical grid with minimum potential for environmental impacts and land use conflicts.
- Allow efficient use of lands owned by the Snowline Joint Unified School District, and create a source of revenue in support of its educational mission.
- Develop a project that utilizes a reliable and proven solar technology with minimal use of natural resources.
- Provide a range of job opportunities related to renewable energy generation.

PROJECT FEATURES

Major project features would include the following (see **Figure 5**):

Solar Field

A solar field would be the primary feature of the proposed project. The total disturbed area of the site, inclusive of the solar field, access roads, and other features, would be about 34 acres, or about 68 percent of the 50-acre site. Solar panels would be organized in rows, with each row separated by about 15 feet (from post to post). Either fixed panels, which do not rotate with the sun, or trackers, which rotate to maximize sun exposure, could be used. Generally, panels would be approximately 8 to 12 feet in height. A cross-section of typical fixed and tracker panel layouts is provided on Figure 5.

Inverters and Switchgear

Individual PV panels are connected together in series to create a “string” to carry direct current (DC) electricity. Strings of DC current run to inverters mounted on small concrete equipment pads distributed across the site. The inverters take the DC output and convert it to alternating current (AC) electricity. AC current produced by the inverters would be transported to the local power distribution network. Existing distribution lines are present along White Road; the project would connect directly to these lines, with no off-site distribution line extension required. On-site, power would run through an extension of the overhead powerline, or via underground conduit, as determined by utility company requirements.

Perimeter Fencing and Access Roads

Eight-foot-tall chain link fencing is proposed along the perimeter of the project site. Access gates would be provided at the site's entry from White Road, a short distance south of Greystone Road. Two emergency access points would also be provided along White Road, south of the main entry.

White Road would be the project access road during construction and operations. On- and off-site access roads will be paved with an aggregate base from the White Road entry point. Within the site, a 26-foot-wide perimeter access road would be constructed along the project project's fence line. This 26-foot width will consist of 20 feet of aggregate base and an additional 6 feet of open space before the start of equipment and solar panels. Other interior access routes would be 20 feet in width. Roadways within the site would consist of gravel, an aggregate base, or native materials with a soil stabilization material, if necessary.

Lighting

Very limited lighting is proposed on the project site. Manually controlled lights would be installed at equipment pads. No other lighting is planned. Cutoffs would be employed to prevent spillover onto neighboring properties.

Stormwater Facilities

With development of the proposed facilities, there would be a less than one percent reduction in pervious site acreage. Fencing and solar panel supports would have little influence on stormwater flows and the proposed site grading would not alter or concentrate the stormwater flows through the site. There are no drainages on the site. The project is anticipated to have very limited impact on site drainage. Water would be permitted to follow current courses and flow through the site. Current drainage patterns are generally towards the north. No onsite detention facilities are planned.

Other Infrastructure

Because the project site would not house any permanent employees, no onsite restroom facilities are proposed. Therefore, no wastewater would be produced and no septic system or other disposal facility would be required.

No water service is proposed at the site. Water required during construction would be obtained from local fire hydrants, with the approval of the Phelan Pinon Hills CSD. Water requirements during operations will be negligible (i.e., for occasional cleaning of solar panels) and would be trucked to the site as needed.

BEST MANAGEMENT PRACTICES/PROJECT DESIGN FEATURES

Various attributes and features of the project serve to minimize negative impacts on local land uses. These include:

Construction Process

Disruption to the community is minimized through placement of the site access point at the northern edge of the site, on White Road. This allows construction traffic to efficiently reach the nearest major roadway, Phelan Road, 0.5 mile to the north. Construction hours will be limited to daytime hours; no overnight work is expected.

Residential Buffers

The project, which only covers a portion of the 50-acre site, is located to create buffers from nearby residences with setbacks significantly larger than required. Perimeter access roads 26 feet in width also serve to increase buffers between project equipment and structures on neighboring parcels.

Solar Technology – Glare and Lighting

The project uses solar panels that have a low profile (typically 9 feet, generally no more than 12 feet in height at the highest point during the day) to minimize visual impacts. These solar panels produce about the same amount of glare as windows on homes.

Nighttime lighting impacts are minimized by including only small lighting features, equipped with on/off switches or motion detectors. Lighting impacts from such fixtures would be similar to those of domestic fixtures on local homes.

Noise Reduction

The only noise-producing project feature—the inverters—are placed away from site boundaries to ensure off-site areas do not experience noise levels exceeding County standards.

Biology and Hydrology

The project would not impact any jurisdictional waters. In addition, minimal paving is used to preserve existing site hydrology. Site selection plays an important role in biological protection; the selected sites are not known to contain any protected species.

FIGURE 5: Site Plan

White Road Solar
Initial Study/Mitigated Negative Declaration

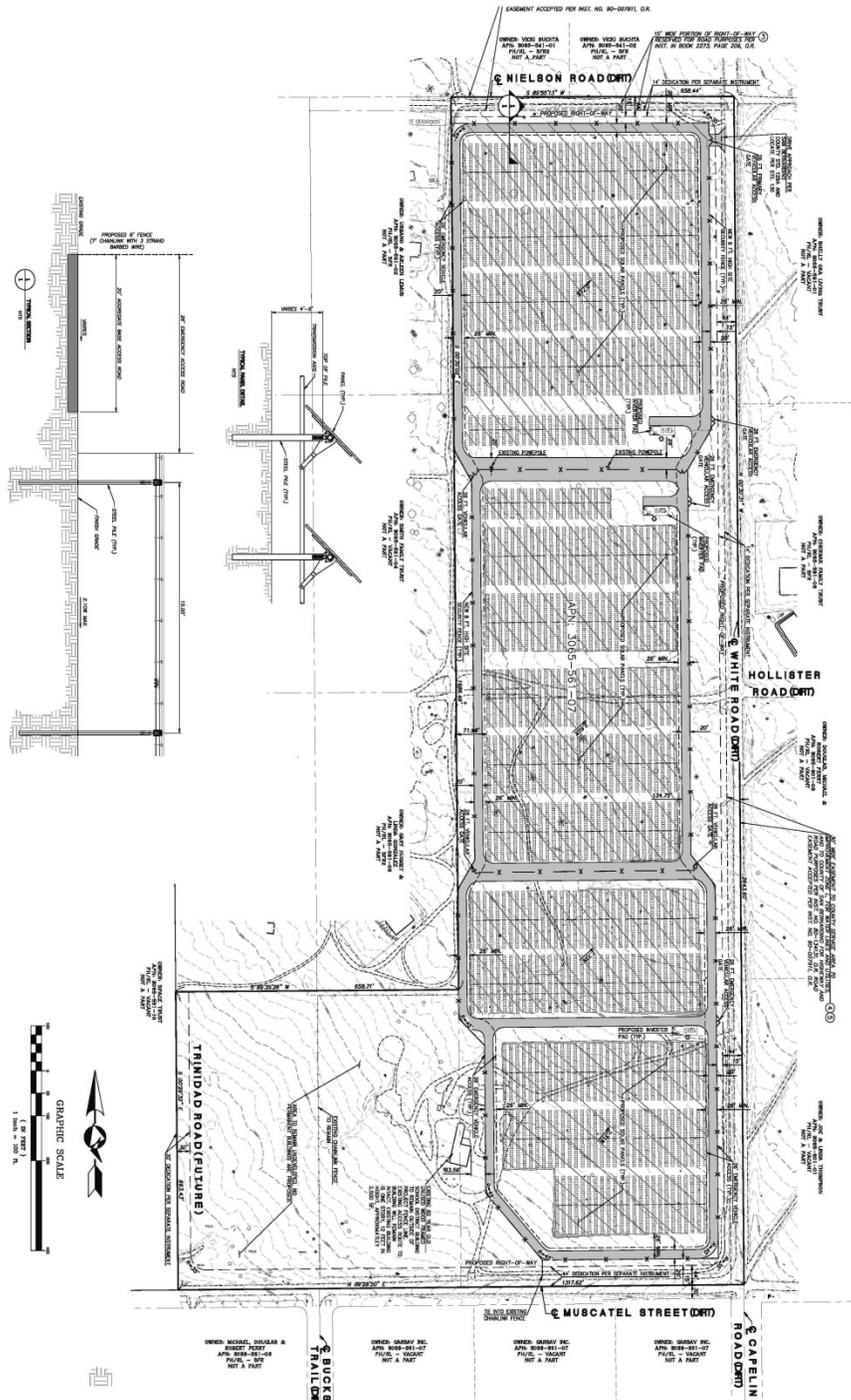


Figure 5
Site Plan

CONSTRUCTION

Site Preparation/Grading

The site is mostly flat, with a slight downward slope towards the north. Grubbing and grading would occur on the site to achieve the required surface conditions. As the site is already largely flat, grading would be limited to approximately 15,000 cubic yards of cut and fill. The site's cut and fill would balance and there would be no import or export of materials necessary. The existing structures on the site would be preserved by the project; no demolition would be required.

Following grading, temporary fencing would be placed around the site. This would allow for materials and equipment to be securely stored on the site.

Construction Access Routes and Laydown Areas

Construction vehicles would access the project site from White Road, which leads to Phelan Road 0.5 mile to the north. Phelan Road is paved and provides access to US 395 and I-15 to the east, and SR 138 to the west.

During construction, materials would be placed within the project boundaries adjacent to the then-current phase of construction. Materials would be within secured, fenced areas at all times to prevent theft or vandalism. A storage container may be used to house tools and other construction equipment. In addition, security guards would regularly monitor the site.

Portable toilet facilities would be installed for use by construction workers. Waste disposal would occur in a permitted offsite facility. Domestic water for use by employees would be provided by the construction contractor through deliveries to the site.

Construction Activities and Equipment

Construction is anticipated to occur over 4.5 months. Up to 65 workers would be onsite during construction. Most workers are anticipated to commute to the site from nearby communities such as Pinon Hills and Phelan, with some traveling from more distant areas such as Victorville, Hesperia, and San Bernardino. Construction would occur during daylight hours. Workers would reach the site using existing roads, with most traveling on Phelan Road to White Road.

Project construction would consist of two major phases. The first phase would include site preparation, grading, and preparation of staging areas and onsite access routes, and the second phase would involve assembly of solar panels and construction of electrical interconnection facilities.

Placement of solar panels could require the placement of 6-inch driven pipe piles approximately 6 to 10 feet into the ground.

During construction, a variety of equipment and vehicles would be operating on the project site. **Table 2** provides a list of the type and number of equipment and vehicles for each construction phase. All equipment and vehicles would comply with the noise requirements of Title 8 of the San Bernardino County Code.

Based on similar projects already constructed, water use during construction can be expected to be a maximum of 8,000 gallons per day (gpd) during grading and 2,500 gpd during other activities. This would result in the use of 1.2 acre-feet of water over the 4.5-month construction period.

Construction Phasing

Construction of the project site is expected to occur in two phases over about 4.5 months. Phase 1 involves site preparation and Phase 2 includes PV system installation. Phase durations, equipment, and staffing are further described in **Table 2**.

Table 2: Construction Phasing				
Phase		Duration	Equipment	Staffing
1	Site Preparation	1.5 months	Graders (2) Dozer Tractors/Loaders/Backhoes (2) Water Truck	26
2	PV System Installation	3 months	Trenchers (3) Welders (3) Forklift, rough-terrain (3) Generator set Tractors/Loaders/Backhoes (2)	65
<i>Total</i>		<i>4.5 months</i>		

OPERATIONS

The project facilities would be automated to allow for operation without staff being present. By nature, solar power generation projects operate during daylight hours, 365 days per year. Staff would visit the site to provide maintenance services and ensure proper operation. Maintenance staff and security personnel would visit the site every one to two days. Activities would be monitored remotely by staff at an offsite location.

Washing of the solar panels, which may be necessary to maintain panel efficiency, would occur approximately two times per year. Washing would require an increase in temporary staffing onsite and the use of water trucks. Trucks would obtain a supply of water from offsite sources. Less than 1 acre-foot of water would be required per year for panel cleaning activities. A portion of the water used in cleaning would evaporate into the atmosphere; the remainder would remain on the site and percolate underground. Negligible amounts of water used in panel washing would flow offsite.

Decommissioning

Should operations at the site be terminated, the facility would be decommissioned. Most parts of the proposed system are recyclable. Panels typically consist of silicon, glass, and an aluminum frame. Tracking systems typically consist of steel and concrete, in addition to motors and control systems. All of these materials can be recycled. Numerous recyclers for the various materials to be used on the project site operate in San Bernardino and Riverside Counties. Metal, scrap equipment, and parts that do not have free flowing oil may be sent for salvage. Equipment containing any free flowing oil would be managed as waste and would require evaluation. Oil and lubricants removed from equipment would be managed as used oil – a hazardous waste in California. Decommissioning would comply with federal, state, and local standards and regulations that exist at the time of project

shutdown, including the requirements of San Bernardino County Development Code Section 84.29.060.

Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

- Mojave Desert Air Quality Management District
- Snowline Joint Unified School District

EVALUATION FORMAT

This initial study is prepared in compliance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based on its effect on 17 major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the overall factor. The Initial Study checklist provides a formatted analysis that provides a determination of the effect of the project on the factor and its elements. The effect of the project is categorized into one of the following four categories of possible determinations:

Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant	No Impact
--------------------------------	--	-----------------------	-----------

Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

1. **No Impact:** No impacts are identified or anticipated and no mitigation measures are required.
2. **Less than Significant Impact:** No significant adverse impacts are identified or anticipated and no mitigation measures are required.
3. **Less than Significant Impact with Mitigation Incorporated:** Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as a condition of project approval to reduce these impacts to a level below significant. The required mitigation measures are: (List of mitigation measures)
4. **Potentially Significant Impact:** Significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are (List of the impacts requiring analysis within the EIR).

At the end of the analysis the required mitigation measures are restated and categorized as being either self- monitoring or as requiring a Mitigation Monitoring and Reporting Program.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below will be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology / Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use/ Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

<input type="checkbox"/>	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION shall be prepared.
<input checked="" type="checkbox"/>	Although the proposed project could have a significant effect on the environment, there shall not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION shall be prepared.
<input type="checkbox"/>	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature (prepared by Christopher Conner, Senior Planner)

Date

Signature: (David Prusch, Supervising Planner)
Land Use Services Department/Planning Division

Date

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
I. AESTHETICS - Will the project				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare, which will adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: (Check if project is located within the view-shed of any Scenic Route listed in the General Plan):

- a) **Less than Significant Impact.** General Plan Open Space Element Policy OS 5.1. states that a feature or vista can be considered scenic if it:
- Provides a vista of undisturbed natural areas,
 - Includes a unique or unusual feature that comprises an important or dominant portion of the viewshed, or
 - Offers a distant vista that provides relief from less attractive views of nearby features (such as views of mountain backdrops from urban areas).

The site is within the community of Phelan, which consists largely of rural residential development interspersed with vacant land. Other land uses include commercial and institutional facilities, paved roadways, and powerlines. The site is not part of a vista of natural areas, as surrounding areas are generally flat and intervening landscapes and manmade structures limit views. More distant vistas from higher-elevation areas in the Angeles National Forest are not significantly impacted due to the low height of the proposed solar panels and other project features. As such, views of undisturbed natural areas are not significantly affected by the project.

The project site is vacant and mostly flat, with no landforms of note. There are no unique or unusual features on the site that could dominate views of the area. Therefore, there are no unique or unusual features on the site that could comprise an important or dominant position in the viewshed.

Finally, the site does not offer distant vistas that provide relief from less attractive nearby features. The proposed project would directly alter the existing view of the project site from adjacent uses and roadways by developing about 34 acres of vacant land with solar panels and ancillary equipment. However, the site is flat and contains no significant geological or vegetation features that could be considered scenic. The solar equipment on site, consisting

of solar panels and associated electrical equipment, would maintain a low profile – generally up to 12 feet in height. Other project features would include access drives, chain link fencing, and a power distribution line. None of the proposed onsite equipment would obstruct any viewsheds in the area; offsite distribution lines would be consistent in height and design with existing power distribution lines adjacent to area roadways, and would therefore not cause any significant change in views.

For the reasons described above, impacts related to a substantial adverse effect on a scenic vista are less than significant.

- b) **Less than Significant Impact.** The proposed project would not damage scenic resources, including those within a designated scenic highway. There are no State-designated scenic routes in the project vicinity and there are no scenic or historic resources onsite. Although undeveloped, there are no large trees or natural rock outcroppings onsite. The vegetation on the site and along the perimeter is sparse and is not unique to the immediate area and therefore is not a scenic resource.

SR-138, located 5 miles southwest of the project site, is depicted on the General Plan's Open Space Element Map as a County-designated scenic route. Due to the substantial distance of the site from this roadway, the flat topography of the area, and the low height of project facilities, the project site would not be visible from the highway. Therefore, the project would have a less than significant impact related to substantial damage to scenic resources within a state scenic highway.

- c) **Less than Significant Impact.** Implementation of the proposed project would alter the existing visual character of the project site. Proposed project facilities have heights which are similar to or lower than those of existing development in the Phelan area, including single-family residences and powerlines. The proposed project would have a low profile (with a typical height of up to 12 feet for solar panels) and minimal lighting and, therefore, would not substantially degrade the existing visual character or quality of the site and its surroundings. The current visual character of the project site consists of flat lands surrounded by sparse rural residential development, and vegetation communities such as Joshua Tree Woodland and Mojavean Juniper Woodland and Scrub. There is some evidence of human disturbance on the site, including mechanical disturbance of soil, vegetation removal, off-road vehicle tracks, domestic dog "diggings" (dug out burrows), and trash.

Photographs of typical solar PV power plant facilities are provided in **Figure 6**. While the precise design of panel systems varies by manufacturer and model, and is subject to modification as technologies evolve, these figures provide an accurate indication of the systems that would be used on the project site. Panels and associated onsite equipment would have a profile much lower than that of a single-story building.

This analysis of aesthetics impacts relies in part on visual simulations of the proposed project. The project's viewshed, which extends approximately two miles from the site boundary, includes areas up to 400 feet higher in elevation. However, due to the low profile of site facilities, it is local viewers from nearby residential areas that would be most affected

by changes in site aesthetics.

The viewpoints used in the simulations are mapped on **Figure 7**. **Figure 8a** shows the pre-development view from Viewpoint Location #1, on Nielson Road at the northwest corner of the site. This viewpoint best represents views from areas to the north and west. The pre-development viewpoint shows few manmade modifications other than dirt roads. A simulation of the proposed project is provided in **Figure 8b**. This view, which is typical of views from nearby residential areas, shows solar panels and fencing covering the site. The impact is reduced by a setback area where desert vegetation is preserved, as well as by the relocation of selected Joshua trees from within the project site to its perimeter. Due to the low height of project facilities, no structures would stand out on the horizon or significantly modify the landscape. Overall, the simulation reveals that the project would be clearly visible from nearby viewpoints in the project's viewshed, but would not be a significant overwhelming presence in the broader landscape.

Figure 9a shows the pre-development view from Viewpoint Location #2, southeast of the site along Muscatel Street. This viewpoint best represents views from areas to the south. The pre-development view shows existing improvements including a paved roadway and powerlines. A simulation of the proposed project is provided in **Figure 9b**. Due to the low height of the proposed facilities, the project from this viewpoint would be only a minor element in the viewshed.

Figure 10a shows the pre-development view from Viewpoint Location #3, at the intersection of White Road and Hollister Road. This viewpoint best represents views from areas to the west. The pre-development view shows existing improvements including a dirt road and powerlines. A simulation of the proposed project is provided in **Figure 10b**. Expanded, wide setbacks (115 feet from White Road's centerline to the project fenceline) are present along this segment of White Road to reduce impacts to the nearest existing residence. Combined with the low height of facilities and the positive visual impact of relocated Joshua trees placed in the perimeter, the project results in only a minor visual impact on the horizon from this viewpoint.

Overall, the project is largely obscured from view of adjacent residences by natural vegetation common to the area. Such vegetation, even when low in height, reduces the visual impact of relatively short structures such as solar panels. This is particularly the case in areas with broader setbacks, which have been located nearest to residential sensitive receptors. This vegetation screens the project site from view and would result in the project having a less than significant impact on visual character when viewed from local residences. With approval of the CUP, the proposed project would be consistent with the County's zoning requirements and development standards relative to the setbacks and height of the project. The proposed project would not have a substantial adverse effect on the visual character or quality of the site or its surroundings; impacts would be less than significant and no mitigation is required.

FIGURE 6: Typical Views of Solar Fields



FIGURE 7: Viewshed Map

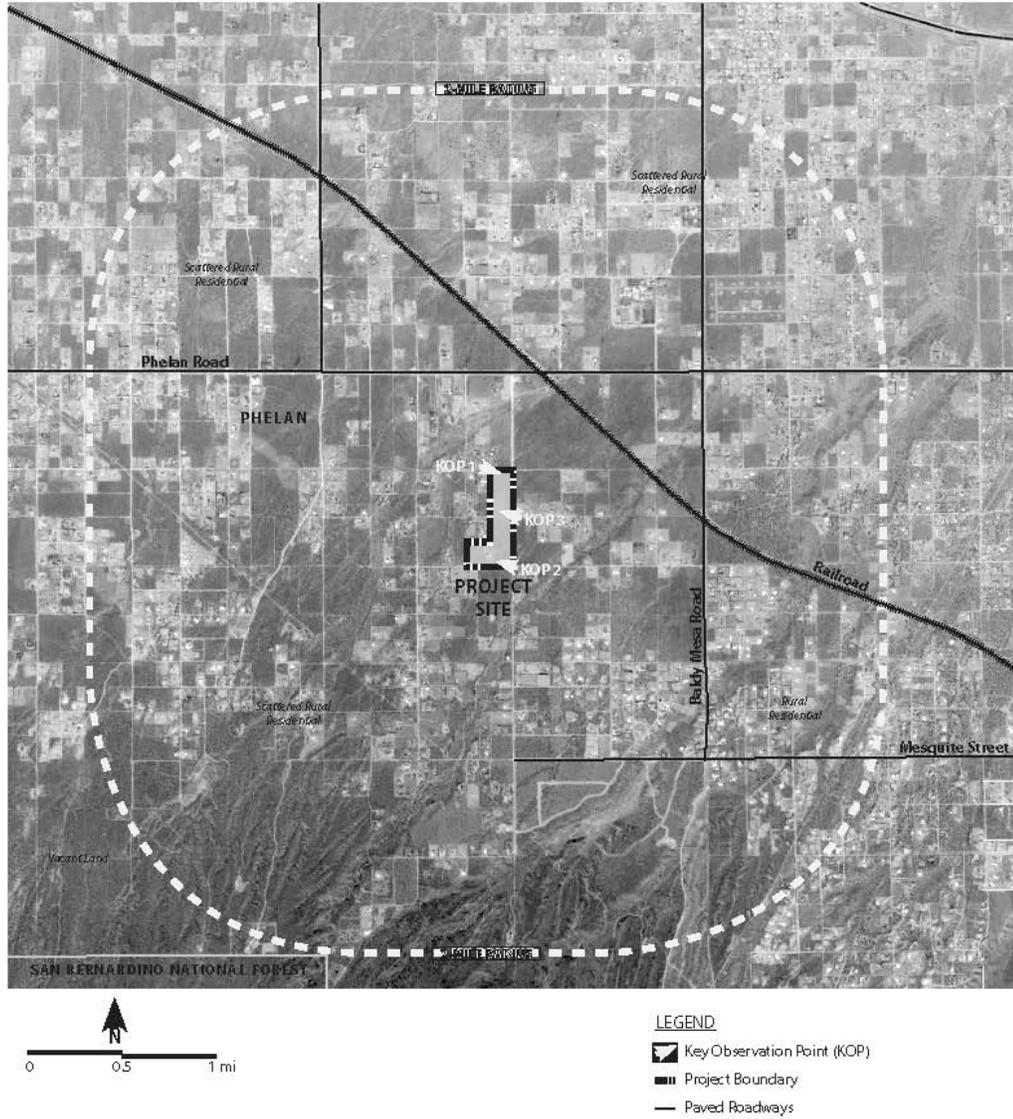


FIGURE 8a/b: Photo Simulations – Location 1



Figure 8a LOCATION 1: Existing view from northwest corner of site, on Nielson Road.



Figure 8b LOCATION 1: Simulated view from northwest corner of site, on Nielson Road.

FIGURE 9a/b: Photo Simulations – Location 2



Figure 9a LOCATION 2: Existing view looking northwest along Muscatel Street, 500 feet east of site.



Figure 9b LOCATION 2: Proposed view looking northwest along Muscatel Street, 500 feet east of site.

FIGURE 10a/b: Photo Simulations – Location 3



Figure 10a LOCATION 3: Existing view looking northwest from the intersection of White Road and Hollister Road.



Figure 10b LOCATION 3: Proposed view looking northwest from the intersection of White Road and Hollister Road.

- d) **Less than Significant Impact with Mitigation Incorporated.** The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. The project uses dark photovoltaic solar cells, which would track the sun to maximize solar exposure to the panels.

Regarding nighttime lighting conditions and daytime glare conditions, “light” refers to artificial light emissions, or the degree of brightness, generated by a given source. The Illuminating Engineering Society of North America defines “glare” as the sensation produced by luminance in the visual field that is sufficiently greater than the luminance to which the eye has adapted to cause annoyance, discomfort, or loss of visual performance and visibility.

Lighting

Construction of the proposed project would generally occur during daytime hours, and could occur as late as 7:00 p.m. in order to meet the construction schedule. No overnight construction would occur. In the event that work is performed between dusk and 7:00 p.m., the construction crew would only use the minimum illumination needed to perform the work safely. All lighting would be directed downward and shielded to focus illumination on the desired work areas only, and to prevent light spillage onto adjacent properties. As applicable, work in the solar field areas and on the distribution lines at night would be performed using battery or gas-powered light stands that would be directed to the active work area. Because lighting would be shielded and focused downward and lighting used to illuminate work areas would be turned off by 7:00 p.m., the potential for lighting to adversely impact any residents is minimal. As a result, the project would not be anticipated to adversely impact nighttime views in the project area.

As described under “Project Features,” above, the proposed project would include manually controlled lights at equipment pads. No other lighting is planned. Cutoffs would be employed to prevent spillover onto neighboring properties. If improperly designed or oriented, such lighting may result in light trespass that falls outside the boundaries of the project site. Under particularly adverse conditions, spillover lighting causes annoyance, discomfort, or loss in visual performance because of its intensity, direction, or source type and visibility.

Impacts resulting from lighting would be minimized through compliance with all development standards, Zoning Ordinance standards, and the goals, policies, and implementation measures of the General Plan. San Bernardino County Ordinance No. 3900 regulates glare, outdoor lighting, and night sky protection. Nighttime lighting associated with the proposed project would be subject to County approval and compliance with San Bernardino County requirements. Lighting would be directed toward the ground from low elevation poles (less than 14 feet in height). All lights would be shielded so that there is no upward directed light. In addition, the implementation of Mitigation Measure AES-1 would minimize the potential for spillover lighting to adversely affect residents and motorists. With implementation of the standard conditions discussed above, as well as Mitigation Measure AES-1, the project would not have substantial adverse impacts related to lighting; impacts would be less-than-significant.

Glare

Most of the project's construction activities are planned to occur during daylight hours. Increased truck traffic and the transport of the solar arrays and construction materials to the project site would temporarily increase glare conditions during construction. However, this increase in glare would be minimal and temporary. Construction activity would occur on focused areas of the site as construction progresses and any sources of glare would not be stationary for a prolonged period of time. Additionally, the surface area of construction equipment would be minimal compared to the scale of the project site. Therefore, construction of the proposed project would not create a new source of substantial glare that would affect daytime views in the area. Impacts would be less than significant during the construction period.

During operations, the reflection of sunlight would be the primary potential producer of glare off the glass surfaces of the solar panels in the proposed project.

A solar panel comprises numerous solar cells. A solar cell differs from a typical reflective surface in that it has a microscopically irregular surface designed to trap the rays of sunlight for the purposes of energy production. The intent of solar technology is to increase efficiency by absorbing as much light as possible (which further reduces reflection and glare).

As described in under "Project Features," above, some or all of the project's panels could be mounted on trackers. Trackers allow the panels to follow the sun in its path from east to west across the southern sky as the day progresses. These devices orient the solar panels perpendicular to the incident solar radiation, thereby maximizing solar cell efficiency and potential energy output. Some of these tracking devices use GPS, which enables the tracking to be extremely accurate, and are capable of positioning the array so that the incident rays would be at or very near a surface normal (perpendicular angle). During midday conditions, when the sun is high in the sky, the law of reflection indicates that the reflected ray would be at an equally low angle and reflected in a direction toward the light source or back into the atmosphere away from receptors on the ground. When the sun is low on the horizon (near dawn or dusk), the sun's angle in the sky is low; however, reflected rays would still be directed away from ground-level receptors.

The panels would not be expected to cause extreme visual discomfort or impairment of vision for residents because the panels are designed to absorb as much sunlight as possible and therefore would have minimal reflectivity. The type of glare that could be expected in the most extreme conditions, when the sun is low in the sky, is a level of veiling reflection that may cause viewers to be less able to distinguish levels of contrast, but not cause a temporary loss of vision. Additionally, for most residents, glare effects would be further reduced by intervening elements in the immediate viewshed, such as vegetative screening created existing vegetation, and other homes or structures, which would obstruct views of the panels. Therefore, the proposed project would result in less-than-significant impacts related to glare for residences in the project vicinity.

Similarly, and also due to their low reflectivity, the panels would not be expected to cause visual impairment for motorists on area roadways. Effects on eastbound motorists would

likely be greatest in the early evening hours, when the sun is at its lowest arc in the western horizon. Glare would have its greatest impact on westbound travelers in the early morning hours, when the sun is rising in the east. Nonetheless, regardless of their position relative to the sun and the time of day, the panels would not be expected to cause visual impairment for motorists. Mitigation Measure AES-2 requires panels to incorporate anti-reflective and diffusion coating technologies that would reduce fugitive glare and spectral highlighting and increase the efficiency of the electrical-generation facility. With the implementation of this mitigation measure, impacts to motorists from glare are further reduced. The proposed project would result in less-than-significant impacts related to glare affecting motorists.

Because of the inherently low reflectivity of PV panels and with implementation of Mitigation Measures AES-1 and AES-2, in addition to compliance with the standards of the Zoning Ordinance, General Plan, and Development Standards of San Bernardino County, glare impacts would be less-than-significant.

Significance: Possible significant adverse impacts have been identified or are anticipated and the following mitigation measures are required as conditions of project approval to reduce these impacts to a level below significant:

AESTHETICS MITIGATION MEASURES:

AES-1 *Lighting Requirements. The area of illumination from any lighting will be confined to within the site boundaries to minimize impacts to night sky views from surrounding properties. On-site lighting will be fully shielded, diffused, or directed in a manner to avoid glare directed at adjacent properties, roadways or any light spill into any wildland areas surrounding the site that might affect nocturnal animals. No light will project onto adjacent roadways in a manner that interferes with on-coming traffic. All lighting will be limited to that necessary for maintenance activities, security, and safety purposes. All signs proposed by this project will only be lit by steady, stationary, shielded light directed at the sign, by light inside the sign or by direct stationary neon lighting.*

AES-2 *Anti-Reflective/Diffusion Coatings. Solar panels and hardware shall be designed to minimize glare and spectral highlighting. To the extent feasible, emerging technologies shall be utilized that introduce diffusion coatings and nanotechnological innovations that will effectively reduce the refractive index of the solar cells and protective glass. These technological advancements are intended to make the solar panels more efficient at converting incident sunlight into electrical power, but have the tertiary effect of reducing the amount of light that escapes into the atmosphere in the form of reflected light, which would be the potential source of glare and spectral highlighting. The developer shall submit for review and gain approval of technical specifications for the proposed coatings or other proposed methods to reduce glare and spectral highlighting prior to issuance of building permits.*

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
II. AGRICULTURE AND FORESTRY RESOURCES				
<p>- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Will the project:</p>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SUBSTANTIATION: (Check <input type="checkbox"/> if project is located in the Important Farmlands Overlay):				

- a) **No Impact.** The Farmland Mapping and Monitoring Program of the California Department of Conservation is charged with mapping Prime Farmland, Unique Farmland, Farmland of Statewide Importance, and Farmland of Local Importance (Farmland) across the state. The project would not convert Farmland, as shown on the FMMP maps, to non-agricultural use,

since the proposed project is not designated as such. There is no impact and no further analysis is warranted.

- b) **No Impact.** The proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. The current General Plan land use designation for the project area is IN, which allows the development of renewable energy generation facility with a CUP (Development Code Section 82.06). The proposed project area is not under a Williamson Act contract. There is no impact and no further analysis is warranted.
- c) **No Impact.** The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. The proposed project area is currently vacant land, which has never been designated as forest land or timberland. No rezoning of the project site would be required as the proposed energy facility is compatible with the current zoning designation of IN. There is no impact and no further analysis is warranted.
- d) **No Impact.** The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. The proposed project site is vacant and covered with desert vegetation. There is no impact and no further analysis is warranted.
- e) **No Impact.** The proposed project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. The current General Plan land use designation for the project area is IN, which allows the development of renewable energy generation facility with a CUP (Development Code Section 82.06). There is no impact and no further analysis is warranted.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
III. AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Will the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>SUBSTANTIATION:</i> <i>(Discuss conformity with the Mojave Air Quality Management Plan, if applicable):</i>				

- a) **Less than Significant Impact.** Giroux & Associates prepared an Air Quality Impact Analysis (AQIA) for the project in November 2013. The AQIA evaluates emissions from construction and operations, focusing on criteria air pollutants, hazardous emissions, and greenhouse gases (GHG). The full report, with baseline emissions data, analysis methodologies and emissions modeling output, is included as Appendix A.

The proposed project would not conflict with or obstruct implementation of the applicable air quality plan. The project site is in the Victor Valley portion of the Mojave Desert Air Basin (MDAB) and under the air quality planning jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). The Victor Valley area is designated “non-attainment” for State and federal ambient air quality standards (AAQS) for ozone (O₃) and inhalable particulate matter (PM-10).

From 2007 to 2011, the O₃ standards were exceeded up to 73 days per year at the Phelan monitoring station, while PM-10 standards (at the closest monitoring station, in Victorville) were exceeded on fewer than five days per year. PM-2.5 thresholds have not been exceeded in recent years, but the region formally remains in non-attainment for this pollutant. The Mojave Air Quality Management Plan (AQMP) provides a program for obtaining attainment status for those monitored air pollution standards. The AQMP bases existing and future air pollution emissions on employment and residential growth projections, as derived from local and regional General Plans and other projections. While the proposed project is not identified specifically in the General Plan, it would not generate

new homes or significant employment opportunities that will change the County's projections.

Attainment of ozone standards is most strongly linked to air quality improvements in upwind communities; the AQIA attributes the majority ozone pollution in the MDAB to sources outside the air basin. PM-10 and PM-2.5, however, is affected by construction, unpaved road travel, open fires and/or agricultural practices. Therefore, in order to limit the production of fugitive dust during implementation of the proposed project, construction activities would be conducted in accordance with MDAQMD Rules 403 - *Fugitive Dust* and 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. This includes using water trucks to minimize the production of visible dust emissions to 20 percent opacity in areas of where grading or vegetation removal occurs, within the staging areas, and on any unpaved roads utilized during project construction.

Over its lifetime, the proposed project would not violate the regulations set forth by the MDAQMD *Rule Book* or *CEQA and Federal Conformity Guidelines*. Electricity generation via the use of photovoltaic systems does not generate chemical emissions that would negatively contribute to air quality. The proposed project is designed to limit the amount of vegetation that would be removed and grading required for access, which would limit fugitive dust generated during the life of the project.

Given that the proposed project would not alter the population or employment projections considered during the development of the AQMP, and considering the minor emissions attributable to the proposed project during operation (refer to discussion in Item III.b below), impacts associated with AQMP consistency would be less than significant.

- b) **Less than Significant Impact with Mitigation Incorporated.** The proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Air quality impacts would include construction exhaust emissions generated from diesel- and gasoline-powered equipment construction equipment, vegetation clearing, grading, construction worker commuting, and construction material deliveries (including the delivery of solar panels from out-of-state locations). Fugitive dust emissions include particulate matter and are a potential concern because the project is in a non-attainment area for PM-10 and PM-2.5, as well as ozone.

The AQIA calculated on-site grading and construction equipment emissions and construction crew commuting and truck delivery emissions using the CalEEMod computer model (version 2013.2.2). The EMFAC2011 program was used for estimating emissions from on-road vehicles during operations. The AQIA uses the following MDAQMD-adopted numerical emissions thresholds as indicators of potential impacts:

Carbon Monoxide (CO)	548 pounds/day	100 tons/year
Nitrogen Oxides (NO _x)	137 pounds/day	25 tons/year
Sulfur Oxides (SO _x)	137 pounds/day	25 tons/year
Reactive Organic Gases (ROG)	137 pounds/day	25 tons/year
Particulate Matter (PM-10)	82 pounds/day	15 tons/year
Particulate Matter (PM-2.5)	82 pounds/day	15 tons/year

Following is a summary of the AQIA's construction equipment fleet assumptions and emissions calculations for both phases of construction activity.

Phase 1: Site Preparation and Grading, 1.5-Month Duration

- 1 Dozer
- 2 Loaders/backhoes
- 2 Graders
- 1 Water truck
- 13 Construction worker vehicles
- 38 truck deliveries per day (20 miles round trip)

Phase 2: Equipment Installation and Distribution Lines, 3-Month Duration

- 3 Trenchers
- 3 Welders
- 3 Rough Terrain Forklifts
- 1 Generator Set
- 2 Loaders/Backhoes
- 33 Construction worker vehicles
- 15 Truck deliveries per day (20 miles round trip)
- 15 Truck deliveries per day (100 miles round trip) – solar panels

The AQIA determined all criteria pollutants generated by the project would be well below their respective thresholds (see Tables 5 and 6 of the AQIA for detailed emissions calculations). In compliance with MDAQMD Rule 403, because the region is in non-attainment for particulate matter emissions, the use of Best Available Control Measures (BACMs) is required even if a project does not exceed thresholds. BACMs for the project consist of enhanced dust control mitigation measures (see Mitigation Measure AQ-2); with these measures, PM-10 and PM-2.5 emissions would be reduced by about 40 percent. As noted in Item III.a above, all required dust abatement measures would be consistent with MDAQMD Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*.

Mitigation Measures AQ-1 and AQ-3, which describe standard County requirements imposed on conditional use permits, would further ensure that emissions from increased vehicle trips would have less-than-significant air quality impacts.

On both a daily and an annual basis, none of the criteria pollutants would exceed the MDAQMD thresholds (with or without the recommended mitigation). **Tables 3 and 4**, below, provide detailed calculations.

**Table 3. Maximum Daily Construction Activity Emissions (pounds/day)
4.5-month duration**

Activity	ROG	NO _x	CO	SO ₂	PM-10	PM-2.5
Phases 1 and 2						
Unmitigated	7.1	59.3	42.5	0.1	12.7	6.6
w/Fugitive Dust Mitigation*	7.1	59.3	42.5	0.1	7.4	4.4
MDAQMD Threshold	137	137	548	137	82	82
Exceeds Threshold?	No	No	No	No	No	No
Source: Giroux & Associates, 2013.						
*enhanced fugitive dust control measures are incorporated into Mitigation AQ-2.						

**Table 4. Construction Activity Emissions (tons/year)
4.5-month duration**

Activity	ROG	NO _x	CO	SO ₂	PM-10	PM-2.5
Phases 1 and 2						
Unmitigated	0.3	3.1	2.2	0.0	0.4	0.3
w/Fugitive Dust Mitigation*	0.3	3.1	2.2	0.0	0.3	0.2
MDAQMD Threshold	25	25	100	25	15	15
Exceeds Threshold?	No	No	No	No	No	No

Source: Giroux & Associates, 2013.

*enhanced fugitive dust control measures are incorporated into Mitigation Measure AQ-2.

The project would generate negligible air emissions during operations because the facility would be automated and would require minimal onsite personnel. Periodic repairs, equipment cleaning, and site monitoring would be conducted, but no permanent staff would be onsite. Solar panels and associated equipment would have an operating life of several decades; therefore, replacement of panels would be very infrequent. The solar panels may be cleaned twice annually, requiring a work crew and light trucks (5 or fewer vehicles). Maintenance and security personnel would visit the site regularly (generally, every few days). For a conservative estimate, the AQIA assumes one visit per day to the site. Based on these factors, operational traffic associated with the project would be minimal.

The AQIA used those factors and commuting distances to calculate operational emissions for cleaning and security. **Table 5**, below, depicts annual operational activity emissions. The table shows that operational emissions are negligible. All criteria pollutants would be less than one percent of their respective MDAQMD daily and annual thresholds and are less than significant. No mitigation is necessary for operational air emissions.

Following the termination of operations, decommissioning activities, as discussed in the

Project Overview section above, would result in ground-disturbing activities similar to those occurring during construction, but would be of a significantly shorter duration. Activities would include the removal and recycling of solar panels and associated equipment, and the restoration of disturbed soil and revegetation of the site with native vegetation. Accordingly, the emissions and applicable control strategies for decommissioning would be similar to those for construction.

Table 5. Operational Activity Emissions (tons/year)

Activity	ROG	NO _x	CO	SO ₂	PM-10	PM-2.5
Cleaning, Security, and Maintenance						
1 site visit per day, 50-mile round trip	0.003	0.009	0.084	0.000	0.000	0.000
MDAQMD Threshold	25	25	100	25	15	15
Exceeds Threshold?	No	No	No	No	No	No

Source: Giroux & Associates, 2013.

Based on the above analysis, project construction and operations would neither violate any air quality standard nor contribute substantially to an existing or projected air quality violation. Mitigation Measures AQ-1 through AQ-3 are required to achieve compliance with regional air quality regulations and the County's CUP implementation requirements. With application of this mitigation measure, impacts are less than significant.

- c) **Less than Significant Impact.** The proposed project would not result in a cumulatively 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 which exceed quantitative thresholds for ozone precursors). As previously discussed in Items III.a and III.b, the project's contribution to criteria pollutants during the temporary construction period would be localized and mitigated to below a level of significance. As also indicated, operational activities would generate insubstantial quantities of air pollutants that are not deemed cumulatively considerable. Since no other sources of potential long-term air emissions would result, impacts would be less than significant.
- d) **Less than Significant Impact.** The proposed project would not expose sensitive receptors to substantial pollutant concentrations (see Items III.a through III.c regarding criteria pollutants). The project's construction and operations would not result in any significant air pollutant emissions, and nearby sensitive receptors (consisting of residences) would not be significantly impacted by such emissions.

With regard to potentially hazardous air emissions, electricity generation via the use of photovoltaic systems does not generate chemical emissions that would negatively affect air

quality. Small amounts of hazardous air pollutants are contained in the diesel exhaust of the construction equipment to be used to prepare the site and install the solar panels. Diesel exposure risk is calculated based on a 70-year lifetime with the receptor located outdoors permanently. Resident exposure to construction equipment exhaust emissions will only be for several months. The combination of limited exhaust particulate emissions, brief resident exposure and generally good daytime desert dispersion conditions renders hazardous emissions impacts as less-than-significant.

For those reasons, impacts are less than significant and an assessment of potential human health risks attributable to emissions of hazardous air pollutants is not required.

- e) **Less than Significant Impact.** The proposed project would not create objectionable odors that would affect a substantial number of people. Electricity generation via the use of photovoltaic systems does not generate emissions that would negatively contribute to air quality or produce objectionable odors. Potential odor generation associated with the proposed project would be limited to short-term construction sources such as diesel exhaust; however, no significant odor impacts are anticipated due to the short-term duration of such emissions, as well as the intervening distance to sensitive receptors. Odor generation impacts would be less than significant and no further analysis is warranted.

SIGNIFICANCE: Possible significant adverse impacts have been identified or are anticipated and the following mitigation measures are required as conditions of project approval to reduce these impacts to a level considered less than significant:

AIR QUALITY MITIGATION MEASURES:

AQ-1 *AQ/Operational Mitigation. Operation of all off-road and on-road diesel vehicles/equipment will comply with the County Diesel Exhaust Control Measures [SBCC §83.01.040 (c)], including but not limited to:*

- a) *Equipment/vehicles will not be left idling for periods in excess of five minutes.*
- b) *Engines will be maintained in good working order to reduce emissions.*
- c) *Onsite electrical power connections will be made available where feasible.*
- d) *Ultra low-sulfur diesel fuel will be utilized.*
- e) *Electric and gasoline powered equipment will be substituted for diesel powered equipment where feasible.*
- f) *Signs will be posted requiring all vehicle drivers and equipment operators to turn off engines when not in use.*
- g) *All transportation refrigeration units (TRUs) will be provided electric connections.*

AQ-2 *AQ/Dust Control Plan. The developer will prepare, submit, and obtain approval from San Bernardino County Planning of a Dust Control Plan (DCP) consistent with Mojave Desert Air Quality Management District guidelines and a letter agreeing to include in any construction contracts/subcontracts a requirement that project contractors adhere to the requirements of the DCP. The DCP will include the following elements to reduce dust production:*

- a) *Exposed soils and haul roads will be watered three (3) times per day to reduce fugitive dust during all grading/construction activities. Inactive areas will be treated with soil stabilizers such as hay bales or aggregate cover.*
- b) *Street sweeping will be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles.*
- c) *Site access driveways and adjacent streets will be washed daily, if there are visible signs of any dirt track-out at the conclusion of any workday.*
- d) *Construction vehicle tires will be washed prior to leaving the project site.*
- e) *All trucks hauling dirt away from the site will be covered, and speeds on unpaved roads will be reduced below 15 miles per hour.*
- f) *During high wind conditions (i.e., wind speeds exceeding 25 mph), areas with disturbed soil will be watered hourly and activities on unpaved surfaces will cease until wind speeds no longer exceed 25 mph.*
- g) *Storage piles that are to be left in place for more than three working days will either be sprayed with a non-toxic soil binder, covered with plastic or revegetated.*

AQ-3 *AQ – Installation. The developer will submit for review and obtain approval from County Planning of evidence that all air quality mitigation measures have been installed properly and that specified performance objectives are being met to the satisfaction of County Planning and County Building and Safety.*

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
IV. BIOLOGICAL RESOURCES - Will the project:				
a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc...) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>SUBSTANTIATION:</i> <i>(Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database <input checked="" type="checkbox"/>): Burrowing owl</i>				

a) **Less than Significant Impact with Mitigation Incorporated.**

Biological Resource Surveys

AMEC Environment & Infrastructure, Inc. (AMEC) conducted general biological investigations of the project site to identify and document any biological resources that might be adversely affected by construction or operation of the project. The Biological Resources Assessment (BRA) study area included the entire project parcel. Surveys were conducted in April and May 2013. Additional areas, including buffers, were analyzed as part of focused surveys. Focused surveys were conducted for desert tortoise and rare plants (with results included in the BRA) and for burrowing owl and Mohave ground squirrel (with

results in separate reports). These reports are further described below.

The purpose of the general survey was to identify potential habitat for any threatened, endangered, or otherwise sensitive plant and wildlife species that may occur in the study areas. Appendix B, *Wildlife and Plant Species Observed During Surveys*, of the BRA lists all plant and wildlife species observed by AMEC biologists in the study area. AMEC also identified biological resources by researching plant and wildlife databases and through literature reviews. As a result of the initial surveys, follow-up focused surveys were conducted for several species, as described separately below. The BRA was prepared in May 2013, and the complete report with detailed findings and recommendations is included in Appendix B. Also found in Appendix B, with detailed findings and recommendations, are Focused Surveys for Burrowing Owl, dated July 2013 and a Mohave Ground Squirrel Survey, dated August 2013. The results of all the surveys are summarized as applicable for Items IV.a to IV.f.

Plant Communities

The plant community present throughout the BRA study area is an intergrade of Joshua Tree Woodland and Mojavean Juniper Woodland and Scrub, dominated by Joshua tree, California juniper, Tucker's oak (in the southwest portion of the parcel, outside the development area), Great Basin sagebrush, peach thorn, bladder-sage, blue sage, Cooper's goldenbush, Interior goldenbush, and California buckwheat. Photographs of on-site plant communities are provided in the BRA.

The plant communities discussed above are composed of numerous plant species. Plant species observations and identifications were completed during the field investigations for the BRA study area. Appendix B of the BRA lists all plant species observed in the study area.

Special Status Plants

Sensitive Plant Species

Sensitive plants include those listed, or candidates for listing, by the U.S. Fish & Wildlife Service (USFWS) and California Department of Fish & Wildlife (CDFW), and species considered sensitive by the California Native Plant Society (CNPS) (particularly Lists 1A, 1B, and 2).

No sensitive plant species were observed within the project site during the general biological field investigations or during focused surveys for rare plants. Most rare plants known from the surrounding area lack appropriate habitat at the project site, and would not be expected to occur on the site. The project site is not in a proposed or final critical habitat area for listed plants. The BRA lists 30 rare plants occurring in the vicinity of the project site based on a literature review and records search. Only three of these species are considered to have any probability (low for all three) of occurrence on the project site: white pygmy-poppy (*Canbya candida*), white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*), and Booth's evening-primrose (*Eremothera boothii* ssp. *boothii*)

It is noted that precipitation in general has been very low this year in the Phelan area, with

just 0.16 inches of rainfall recorded for March, and none recorded for April. This represents approximately 15 percent of the average rainfall total of 1.08 inches for March and April in the project area. Germination of annual plants has been negatively affected by the lack of rain. The BRA, however, concludes that there is very little chance the three rare plants with a probability of occurring on-site are actually present. Further, these plants are not state or federally listed as threatened or endangered. Therefore, no significant impacts to rare plants are anticipated and no mitigation measures are required.

Regulated Plant Species

The San Bernardino County Development Code, Title 8, Chapter 88.01, *Plant Protection and Management*, implements and augments provisions of the California Desert Native Plants Act (California Food and Agricultural Code Section 80000 et seq.), which is intended to regulate the harvesting of desert native plants and require the transplantation of plants from development sites. The County code requires compliance with the Act before the issuance of a development permit or approval of a land use application that would result in removal of the regulated species.

Development Code Section 88.01.030 states:

The provisions in this Chapter, except those of Section 88.01.090 (Tree Protection From Insects and Disease) shall not apply to the removal of regulated trees or plants that may occur in the following situations:

(b) Government owned lands. Removal from lands owned by the United States, State of California, or local government entity, excluding Special Districts (i.e., Special Districts shall be subject to the provisions of this Division.).

Accordingly, the project site, which is owned by the Snowline JUSD (a local government entity) is exempt from the requirements of the County's Plant Protection and Management Ordinance.

Sensitive Wildlife Species

General Wildlife Inventory

The natural communities identified in the BRA serve as part of a functional habitat unit for a variety of wildlife species, both within the study areas and as part of the regional ecosystem. Wildlife species observations and identifications were completed during the field investigations for the BRA. Appendix B of the BRA lists all wildlife species observed in the study area, including sensitive wildlife species. Sensitive wildlife species include those species listed as endangered or threatened under the federal Endangered Species Act (FESA) or the California ESA (CESA), candidates for listing by USFWS or CDFW, and special species of concern to the CDFW.

BRA Table 2 lists 39 sensitive wildlife species identified in database records as occurring within the site vicinity. 29 of these species are deemed to be absent from the project site, generally because of the lack of appropriate habitat.

Two species were observed on the site: coast horned lizard and prairie falcon. One coast horned lizard was found on the southwestern portion of the parcel, outside the proposed

development area (see Figure 5 in Appendix A). One Prairie falcon was observed flying over the central portion of the site during the April 12, 2013 survey. Neither of these species is formally listed as threatened or endangered by state or federal agencies, but the coast horned lizard is considered a “Species of Concern” by the CDFW. The prairie falcon is not expected to nest on the project site, as this falcon nests on cliffs. It is likely that prairie falcons occasionally utilize the site to forage over, or simply fly over the site while enroute to other parts of their home range. AMEC biologists are not aware of any specific mitigation applicable to foraging habitat for sensitive, but unlisted bird species such as the prairie falcon. Similarly, there is no specific mitigation measure applied to coast horned lizards. Impacts to any populations of the unlisted species discussed above on this relatively small, disturbed parcel would be insignificant.

One species, hoary bat, has a moderate possibility of occurring on the site, and the remaining seven species identified in the vicinity have a low possibility of occurring on-site (or only periodically utilize the site for foraging): Cooper’s hawk, long-eared owl, burrowing owl, loggerhead shrike, pallid San Diego pocket mouse, western mastiff bat, and Mohave ground squirrel.

Potential foraging and nesting habitat for Cooper’s hawk, long-eared owl, and loggerhead shrike is present on the project site, with potential nesting habitat located primarily on the southwest portion of the site, where Tucker oaks are present. Both the western mastiff bat and hoary bat have potential to occasionally forage over the site, and the Tucker oaks provide potential roost sites for the hoary bat. Roosting habitat for the western mastiff bat is not present on the site. Marginal habitat is present on the site for pallid San Diego pocket mouse. Marginal habitat for the coast horned lizard and pallid San Diego pocket mouse exists onsite, but even if present, impacts to any populations on this small, disturbed lot would be insignificant. The western mastiff bat would not be expected to roost on the project site, but has a low potential to occasionally forage over the site. Loggerhead shrike has a low potential to nest on the site, and a moderate potential to occasionally forage on the site. Burrowing owl and Mohave ground squirrel will be discussed in more detail below. The only one of these species formally listed as threatened or endangered by state or federal agencies is Mohave ground squirrel (listed by the state as Threatened), although all except Cooper’s hawk are considered “Species of Concern” by the CDFW.

Impacts to nesting birds are minimized through the implementation of pre-construction surveys, as further described below. The project has additionally minimized the potential for impact to Cooper’s hawk, long-eared owl, and loggerhead shrike by avoiding development in the southwest portion of the parcel. There are no specific mitigations that are applied to the unlisted species discussed above, and impacts on this relatively small and disturbed parcel are considered less than significant.

No other sensitive bird, reptile, or mammal species were detected during the survey efforts. No naturally occurring native fish populations or amphibians occur in the study areas.

Desert Tortoise

Desert tortoise (*Gopherus agassizii*) is a federal and State Threatened species. The BRA study area is not located in USFWS-designated critical habitat for the desert tortoise. The

nearest designated USFWS critical habitat is 19 miles to the north.

AMEC performed a USFWS protocol focused survey for the desert tortoise on the site and had negative results. Biologists also performed three belt transect rings spaced at 200, 400, and 600 meters from the perimeter of the project to determine if tortoises were present in the immediate project. No tortoises or their sign were encountered during these “Zone of Influence” surveys. The presence of busy paved roads and residential development, combined with the fragmented nature of the habitat around the project site, make it unlikely that a desert tortoise would wander onto the project site from adjacent lands. Based on the results of the focused survey, desert tortoise is not present on the project site, or in the immediate vicinity. The project would therefore not impact desert tortoise, and no mitigation measures are required.

It is noted that USFWS submitted a comment letter (dated July 19, 2013) on this project, which recommended mitigation against common ravens if the construction and operation of the solar facilities had the potential to increase raven populations. Common ravens prey on desert tortoise populations. No mitigation is required to control common raven populations at the project site. The project would not increase the raven population, as the proposed solar panels are a maximum of 12 feet in height and become hot during the day, which makes them unattractive to common ravens. Ravens prefer to nest and perch in taller structures, which are widely available in the area—including existing powerlines, residences, and plants such as Joshua trees. Additionally, because the site would be unmanned, no food would be consumed or disposed of on the site during operations. During construction, crews would be required to maintain the site in a clean condition with all food waste properly disposed of in sealed container. For these reasons, no mitigation is required to control common raven populations.

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is a species of special concern and its burrow sites are protected. Protocol surveys (detailed in Appendix B) were conducted from April through July 2013, which is during the peak breeding season (February 1 through August 31).

A protocol level habitat assessment for the burrowing owl was conducted by AMEC on April 11 and 12, 2013. The habitat assessment was conducted on foot, visually inspecting and mapping all areas of the site and adjacent areas (a 500 foot buffer around the site) for components of burrowing owl habitat (i.e., sparsely vegetated areas with appropriate sized burrows or man-made structures suitable for burrowing owl use). The first of four focused surveys was conducted concurrent with the habitat assessment. Straight line transects spaced 10 meters apart on the project site and 20 meters apart in the buffer area were walked throughout suitable areas of the site and buffer area in order to identify occupiable habitat. Global positioning system (GPS) units pre-loaded with transect route coordinates were used by surveyors to navigate along each survey transect line. Burrows suitable for burrowing owl occupation were recorded by GPS, and closely monitored and inspected during each subsequent visit for evidence of burrowing owl use (i.e., whitewash, pellets, feathers, and other adornments).

The habitat assessment/first focused survey detected several burrows that were potentially

suitable for burrowing owl occupation, located both on the project site and in the buffer zone around the site. No burrowing owls or evidence thereof (i.e., whitewash, pellets, feathers, tracks, prey remains, egg shell fragments, nest adornment materials, etc.) were observed onsite or on adjacent properties surveyed during any of the four survey visits, or during the Zone of Influence transects walked up to 600 meters around the site.

The results of the breeding season focused survey indicate that the burrowing owl does not currently occupy the site or immediately adjacent areas. However, because the area continues to provide suitable shelter and nesting habitat for burrowing owls, the potential remains for the species to occur on or adjacent to the site in the future. In accordance with CDFW's *Staff Report on Burrowing Owl Mitigation* (2012), a "take avoidance survey" for the burrowing owl should be conducted no less than 14 days prior to the initiation of ground disturbance activities and a final survey should also be conducted within 24 hours prior to ground disturbance. If no burrowing owls are detected during the take avoidance surveys, implementation of ground disturbance activities could proceed without further consideration of this species. If burrowing owls are detected during the take avoidance survey, avoidance and minimization measures would then be required, under the guidance of the CDFW. With the implementation of Mitigation Measures BIO-1, which requires pre-construction burrowing owl surveys, and BIO-2, which requires preparation of a burrowing owl management plan in coordination with CDFW, the potential for impacts to burrowing owl would be reduced to below a level of significance.

Mohave Ground Squirrel

Protocol surveys for the Mohave ground squirrel were conducted from April through July 2013 by EREMICO Biological Services, which is authorized to conduct such surveys under a Memorandum of Understanding with CDFW.

To determine presence of Mohave ground squirrels on the project site, a visual survey was conducted, followed by a trapping survey. The visual survey was conducted by walking a meandering transect through the project site. The purpose of this survey was to unobtrusively search for Mohave ground squirrels, to evaluate the habitat for its potential to support this squirrel, and to select the site for the trapping grid. The Mohave ground squirrel presence-or-absence trapping study was conducted using the CDFW's standardized survey guidelines, as further described in the Mohave Ground Squirrel Survey report, located in Appendix B of this IS. As required by the survey guidelines, three separate trapping periods were conducted, totaling 11,925 trap-hours. No Mohave ground squirrels were trapped during any of the trapping periods. Based on these results, it is concluded the project would have a less than significant impact on Mohave ground squirrel, and no mitigation measures are required.

- b) **Less than Significant Impact.** The site does not contain any riparian habitat. Vegetation on the site is an intergrade of Joshua Tree Woodland and Mojavean Juniper Woodland and Scrub. Joshua Tree Woodland has a State sensitivity ranking of S3.2 (Vulnerable), and as such is considered a "Special Concern" community under CEQA. Mojavean Juniper Woodland and Scrub is considered a secure habitat that is not at risk. Because Joshua Tree Woodland on this site is an intergrade (ecotone) with Mojavean Juniper Woodland and

Scrub, and has been subjected to a variety of disturbances and impacts (such as the spread of invasive species, human activity, and adjacent development), the expression of this plant community on the site does not meet the standard as presented by the CDFW for classifying this habitat as a “High Priority” vegetation type because it does not “exemplify high quality, sustainable, old growth characteristics” (CDFW, 2013). Therefore, modification or loss of a small amount of this lower quality of habitat would not be expected to constitute a significant impact under CEQA. The impact is less than significant.

- c) **No Impact.** AMEC assessed the BRA study area to determine whether any waters and/or wetlands exist on the site that could potentially be under the jurisdiction of the federal government, through the U.S. Army Corps of Engineers (USACE). No such waters and/or wetlands were identified on the site. The project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act, and no mitigation measures are required.
- d) **Less than Significant Impact with Mitigation Incorporated.** While some native wildlife species, especially those particularly tolerant of human disturbances, may occasionally breed on the site, no native wildlife have established nursery or breeding colonies on the site. No naturally occurring native fish populations are present within the project site because the project site has no standing water or significant hydrological drainages where water would be present for an extended period of time.

Wildlife Corridors

The project area offers limited utility as a wildlife corridor. The general vicinity of the site includes residential development, roads and other infrastructure that prevents substantial wildlife movement. The site also has an existing residence and dirt drives which interrupt any corridor function that the site provides. Nonetheless, the following project design features will minimize impacts to wildlife movement within the BRA study area:

- **Lighting:** The project has been designed to minimize night lighting. All outdoor lighting, including street lighting, will be provided in accordance with the Night Sky Protection Ordinance and will only be provided as necessary to meet safety standards. Outdoor lighting will be shielded or directed away from neighboring properties to minimize off-site impacts.
- **Noise:** The projected increases in noise will be reduced to the maximum extent practicable during construction activities. During all grading on-site, the construction contractors will equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers’ standards to reduce construction equipment noise to the maximum extent possible. The construction contractor will place all stationary construction equipment so that emitted noise is directed away from off-site locations. In addition, all construction work would occur during daylight hours only.
- **Human and Vehicular Disturbances:** Operations and maintenance of the solar facilities will only occur on occasion and during daylight hours. Vehicles will only be

operated on existing roads and reduced speed limits will be observed to minimize the risk of wildlife-vehicle collisions.

- **Dust:** Standard construction-related BMPs, such as dust control, will be implemented.

Nesting Birds

The study area has the potential to support nesting birds due to the presence of shrubs and ground cover. Disturbing or destroying active nests during construction would be a violation of the Migratory Bird Treaty Act (MBTA). In addition, nests and eggs are protected under Fish and Game Code Section 3503. Thus, the removal of vegetation during the breeding season is considered a potentially significant impact. Nesting activity typically occurs from February 15 to August 31.

In order to avoid potentially significant impacts during construction, the project will be mitigated in one of two ways: 1) habitat avoidance by removing vegetation outside of the nesting season, or 2) if construction is to occur during the nesting season, avoidance of active nests as deemed appropriate by a qualified biologist during construction monitoring. The implementation of these measures, detailed in Mitigation Measure BIO-3, would reduce this impact to a level that is less than significant.

Foraging Raptors

Although there is no raptor nesting habitat on the project site, the study area may support foraging habitat for a number of raptor species. However, in light of the amount of habitat that remains available for this species within the region, removal of foraging habitat represents a less than significant impact to regional raptor populations.

- e) **Less Than Significant Impact.** The San Bernardino County General Plan (Conservation Element and Open Space Element) sets forth the following policies relevant to the protection of natural resources:

1. Encourage the greater retention of existing native vegetation for new development projects to help conserve water, retain soil in place and reduce air pollutants.

Project Consistency: As described further in the project description section above, the project consists of development on only 34 acres of a 50-acre parcel, leaving nearly one-third of the site in its current condition, with existing vegetation remaining in place. In addition, the project would not require regular use of water during operations. Water use could be required for occasional panel washing (approximately two times per year), resulting in less than 1 acre-foot of water consumed. During construction, dust control measures (see Mitigation Measure AQ-2) would be employed to reduce fugitive dust during grading and other ground disturbance activities. During operations, potential sources of dust would be limited to onsite roadways within the site; however, these would consist of gravel, an aggregate base, or native materials with a soil stabilization material; therefore, dust and air pollutants would be contained and limited to less than significant levels. As described above in Section IV.b., the County's decommissioning requirements in

Chapter 84.29 of the County's Development Code, Renewable Energy Generation Facilities, Decommissioning Requirements (Section 84.29.6060) state that native plants must be salvaged prior to construction and transplanted and the site must be revegetated subsequent to decommissioning with native plants.

2. Require future land development practices to be compatible with the existing topography and scenic vistas, and protect the natural vegetation.

Project Consistency: The project site is relatively flat and does not contain scenic vistas. The project will not require will not significant manipulation of the existing site grades that will be inconsistent with the surrounding topography. See response to IV.e.1. above regarding protection of the natural vegetation.

3. Require retention of existing native vegetation for new development projects, particularly Joshua trees, Mojave yuccas and creosote rings, and other species protected by the Development Code and other regulations.

Project Consistency: See response to IV.e.1. above regarding protection of native vegetation. Plants protected by the California Desert Native Plants Act are afforded removal and relocation protections under the County Development Code, Title 8, Chapter 88.01, *Plant Protection and Management*. The County specifically exempts from these requirements for public agency projects. Insofar as the project will comply with the County Development Code and any permit conditions, development of the proposed project would not conflict with the General Plan, local policies or ordinances protecting biological resources.

4. Reduce disturbances to fragile desert soils as much as practicable in order to reduce fugitive dust.

Project Consistency: See response to IV.e.1. and 2. above regarding preventing fugitive dust emissions and the limited grading activities proposed onsite.

5. Ensure that Off-Highway Vehicle use within the plan area and in the surrounding region is managed to protect residential uses and environmentally sensitive areas.

Project Consistency: Off-Highway Vehicle use will not be permitted on the project site; this will be enforced with the installation of security fencing around the project perimeter.

- f) **No Impact.** The project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. The study area is within the Western Mojave Plan boundary; however that plan currently applies only to federal Bureau of Land Management (BLM) lands and not to the study areas. The project site is also within the planning area of the Desert Renewable Energy Conservation Plan; however, this Habit Conservation Plan and Natural Community Conservation Plan is still in development and has not been adopted. The project will have no significant impact relating to Habitat Conservation Plans, Natural Community Conservation Plans, and Recovery Plans. There would be no take of critical habitat and, therefore, no land use conflict with existing management plans would occur.

SIGNIFICANCE: Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of project approval to reduce these impacts to a level below significant:

BIOLOGICAL RESOURCES MITIGATION MEASURES:

BIO-1 *Burrowing Owl Mitigation – Pre-Construction Surveys.* Within 14 days prior to ground disturbance, the Applicant will retain a qualified biologist to conduct burrowing owl surveys within the area to be disturbed. The survey will be performed by walking parallel transects spaced no more than 20 meters apart, and will be focused on detecting burrows that are occupied, or are suitable for occupation, by the burrowing owl. The results of the surveys, including graphics showing the locations of any active burrows detected and any avoidance measures required, will be submitted to the County of San Bernardino and the California Department of Fish & Wildlife (CDFW) within 14 days following completion of the surveys. If active burrows are detected, the following take avoidance measures will be implemented:

- If burrowing owls are observed using burrows on-site during the non-breeding season (September through January, unless determined otherwise by a qualified biologist based on field observations in the region), occupied burrows will be left undisturbed, and no construction activity will take place within 300 feet of the burrow where feasible (see below).
- If avoiding disturbance of owls and owl burrows on-site is infeasible, owls will be excluded from all active burrows through the use of exclusion devices placed in occupied burrows in accordance with protocols established in CDFW's Staff Report on Burrowing Owl Mitigation (2012). Specifically, exclusion devices, utilizing one-way doors, will be installed in the entrance of all active burrows. The devices will be left in the burrows for at least 48 hours to ensure that all owls have been excluded from the burrows. Each of the burrows will then be excavated by hand and/or mechanically and refilled to prevent reoccupation. Exclusion will continue until the owls have been successfully excluded from the disturbance area, as determined by a qualified biologist.
- Any active burrowing owl burrows detected on-site during the breeding season (February through August, unless determined otherwise by a qualified biologist based on field observations in the region), will not be disturbed. Construction activities will not be conducted within 300 feet of an active on-site burrow at this season.

BIO-2 *Burrowing Owl Mitigation – Management Plan.* Prior to issuance of a grading permit, a habitat management plan for the burrowing owl will be developed. The plan will include provisions for protecting foraging habitat and replacing any active burrows from which owls may be passively evicted as allowed by Mitigation Measure BIO-1. At a minimum, the plan will include the following elements:

- If occupied burrows are to be removed, the plan will contain schematic diagrams of artificial burrow designs and a map of potential artificial burrow locations that would compensate for the burrows removed.

- *All active on-site burrows excavated as described in Mitigation Measure BIO-1 will be replaced with suitable natural or artificial burrows within the preservation areas approved by the County of San Bernardino.*
- *Measures prohibiting the use of rodenticides during the construction process if any active on-site burrows are identified.*
- *The plan will ensure that adequate suitable burrowing owl foraging habitat is provided in proximity to natural or artificial burrows within off-site mitigation areas.*

The Burrowing Owl Management Plan will be submitted to the County of San Bernardino and the California Department of Fish and Wildlife for review and approval prior to issuance of a grading permit for the Project.

BIO-3 *Nesting Bird Mitigation – Pre-Construction Surveys. Within 30 days prior to vegetation clearing or ground disturbance associated with construction or grading that would occur during the nesting/breeding season (February through August, unless determined otherwise by a qualified biologist based on observations in the region), the Applicant will retain a qualified biologist to determine if active nests of species protected by the Migratory Bird Treaty Act or the California Fish and Game Code are present within or adjacent to the disturbance zone or within 100 feet (300 feet for raptors) of the disturbance zone. The surveys will be conducted no more than seven days prior to initiation of disturbance work within active project areas. If ground disturbance activities are delayed, then additional pre-disturbance surveys will be conducted such that no more than seven days will have elapsed between the survey and ground disturbance activities. If ground disturbance will be phased across the project site, pre-disturbance surveys may also be phased to conform to the development schedule.*

If active nests are found, clearing and construction within 100 feet of the nest (or a lesser distance if approved by the U.S. Fish & Wildlife Service) will be postponed or halted, until the nest is vacated and juveniles have fledged, as determined by the biologist. Avoidance buffers will be established in the field with highly visible construction fencing or flagging, and construction personnel will be instructed on the sensitivity of nest areas. A qualified biologist will serve as a construction monitor during those periods when construction activities will occur near active nests to ensure that no inadvertent impacts on these nests occur.

The results of pre-construction nesting bird surveys, including graphics showing the locations of any nests detected, and documentation of any avoidance measures taken, will be submitted to the County of San Bernardino and California Department of Fish & Wildlife within 14 days of completion of the pre-construction surveys or construction monitoring to document compliance with applicable state and federal laws pertaining to the protection of native birds.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
V. CULTURAL RESOURCES - Will the project				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: (Check if the project is located in the Cultural or Paleontologic Resources overlays or cite results of cultural resource review):

- a) **Less than Significant Impact with Mitigation Incorporated.** BCR Consulting (BCR) prepared a Cultural Resources Assessment (CRA) for the 25-acre project site in November 2013. The purpose was to identify and document any cultural resources that might be located in the project's area of potential effect (APE) and to evaluate such resources pursuant to National Historic Preservation Act (NHPA) Section 106, CEQA, and the County's General Plan. The Cultural Assessment identified historic or archaeological properties by means of pedestrian survey and research in appropriate historical and archaeological archives. The full report, with detailed findings and recommendations, is included as Appendix C.

Literature Review and Records Search

BCR conducted a cultural resources records search and literature review at the California Historic Resources Information System (CHRIS) San Bernardino Archaeological Information Center (SBAIC) at the San Bernardino County Museum in Redlands, California. Additional research was conducted at the Phelan Memorial Library. BCR also reviewed databases for the National Register of Historic Places (National Register), the California Register of Historical Resources (California Register), and documents and inventories published by the California Office of Historic Preservation, including California Points of Historical Interest, California Historical Landmarks, Listing of National Register Properties, and the Inventory of Historic Structures.

The records search revealed that 14 cultural resources studies have previously been conducted within a one-mile radius of the project site; none of these studies covered the site itself. The studies identified 17 cultural resources, including 14 historic, one prehistoric, and two of unknown age.

Additional research completed by BCR revealed that the project site contained a building by 1938. This property was established as part of a 160-acre homestead awarded to George

Washington Hooser in 1917. As part of his homestead obligation, Mr. Hooser established a farm (no longer present) and constructed two buildings on the original property, including the house mentioned above and an unspecified building to the northwest of the current study area.

NAHC Records Search and Consultation

BCR commissioned a Sacred Lands File (SLF) records search through the Native American Heritage Commission (NAHC), which is the State's trustee agency for the protection and preservation of American Indian cultural resources. The SLF search did not indicate the presence of American Indian or prehistoric cultural resources (including properties, places, or archaeological sites) in the vicinity of the project site.

An SLF is not an exhaustive inventory of sacred places; thus, NAHC provides a list of culturally affiliated tribes and individuals that may have knowledge of the religious and cultural significance of the properties in the APE. In compliance with State and federal mandates, BCR initiated consultation with the 11 listed tribes and interested American Indian consulting parties by requesting information regarding American Indian or prehistoric resources (archaeological sites, sacred lands, or artifacts) that may be affected by the proposed project. As of December 2013, BCR had received one response from the American Indian community. Daniel McCarthy, Director of the Cultural Resources Management Department of the San Manuel Band of Mission Indians, responded via email on May 15, 2013, requesting a copy of the CRA when completed. The CRA was sent to Mr. McCarthy on June 13, 2013. No additional comment has been received from the San Manuel Band.

Pedestrian Field Survey

To identify any previously unrecorded archaeological resources and to determine the potential for buried archaeological deposits, BCR performed pedestrian field surveys of the project site on April 25, 2013. The survey was conducted by walking parallel transects spaced approximately 15 meters apart across 100 percent of the project site, where accessible. BCR recorded any identified resources using DPR 523 forms, GPS coordinates for mapping purposes, and digital photography.

Evaluation of Potential Resource

The records search and field survey identified one historic-period resource, a structure constructed circa 1917-1938 (designated as P-36-026823). CEQA calls for the evaluation and recordation of historic and archaeological resources. The criteria for determining the significance of impacts to cultural resources are based on Section 15064.5 of the CEQA Guidelines and Guidelines for the Nomination of Properties to the California Register. Properties eligible for listing in the California Register and subject to review under CEQA are those meeting the criteria for listing in the California Register, National Register, or designation under a local ordinance.

Significance criteria to determine eligibility for the California Register of Historical Resources are based on National Register criteria. For a property to be eligible for inclusion on the California Register, one or more of the following criteria must be met:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.;
2. It is associated with the lives of persons important to local, California, or U.S. history;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of a master, possesses high artistic values; and/or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, the California Register requires that sufficient time has passed since a resource's period of significance to "obtain a scholarly perspective on the events or individuals associated with the resources" (California Code of Regulations 4852 [d][2]). The California Register also requires that a resource possess integrity. This is defined as the ability for the resource to convey its significance through seven aspects: location, setting, design, materials, workmanship, feeling, and association.

Potential Resource: Former Residential Structure

One historic-period structure, originally used as a residence, was identified on the site during the research phase. The structure was evaluated in greater detail during the pedestrian survey; a DPR 523 form was completed for the project, and is included within Appendix C. The structure and its surroundings consist of a main building with attached garage, overturned outhouse, and yard. The main building is a simple, one-story vernacular structure constructed circa 1917-1938. The roof is aluminum and side-gabled. The structure exhibits severe alterations, including an addition that spans the length of the original building along the east elevation, and a one-car garage attached to the original north elevation. It is wood frame with non-original fabricated siding and contains various double-hung and aluminum windows that clearly mark the placement of the alterations. The house is in fair condition, but alterations have compromised its integrity. A modern outhouse is lying on its side to the north of the house. Six rock piles have been stacked in the yard to the southeast of the house, and consist of native and non-native rocks and debris. One prehistoric quartzite core and several amethyst glass fragments were noted in these piles, but they lack provenance. Beyond the immediate vicinity of the residence, the area is overgrown in natural vegetation and retains no evidence of homesteading activities.

BCR assessed this potential resource relative to the four criteria, listed above, for listing in the California Register.

- Criterion 1: The former residential structure and its surroundings represent a homestead common throughout the region during the period of significance (early 20th century/post World War I era), and as such is not associated with any events that have made a significant contribution to the broad patterns of local or regional history.
- Criterion 2: Extensive research has failed to specifically associate the property with any individuals who have been notable in local, state, or national history.
- Criterion 3: The house is a simple example of a vernacular house and does not embody the distinctive characteristics of a type, period, region, or method of construction, or

represent the work of an important creative individual or possess high artistic values.

- Criterion 4: Extensive research has exhausted this resource's data potential, and as such the resource has not and is not likely to yield information important in prehistory or history.

The historic-age building and associated features are therefore not considered eligible under any of the four criteria for listing on the California Register and have shown to lack integrity of setting, design, materials, workmanship, feeling, and association. As a result the historic-age building and associated features are not considered a historical resource under CEQA.

Conclusion

Based on the lack of historical resources on the site, as determined by records searches and field surveys, the project would not cause a substantial adverse change in the significance of a historical resource.

- b) **Less than Significant Impact with Mitigation Incorporated.** The proposed project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 (see Item V.a above). Records searches and field surveys in support of the CRA identified no archaeological resources on the site; therefore, the effects of the project on such resources are not considered a significant effect on the environment (CEQA Guidelines §15064.5(c)(4)). Mitigation measures require the applicant to retain on-call a qualified archaeologist. In the event of the discovery of buried cultural resources, the project archaeologist would be brought on-site to monitor ground-disturbing activities and excavations and temporarily redirect activities from the vicinity of the find in order to evaluate the significance of the resource and to provide proper management recommendations. See Mitigation Measures CR-1 and CR-2 below.
- c) **Less than Significant Impact with Mitigation Incorporated.** BCR assessed impacts to paleontological resources in the CRA. Appendix C to the CRA contains the results of a paleontology records check prepared by the Natural History Museum of Los Angeles County, Vertebrate Paleontology Section (L.A. County Museum). The purpose of this records check was to determine the likelihood of any onsite paleontological resources being found and to determine the potential for disturbance of undiscovered resources during construction, pursuant to CEQA and the County's General Plan.

The project site slopes downward to the north, with an elevation change of about 50-60 feet (from 3,890 feet to 3,830 feet) over a distance of 0.5 mile. There are no unique geologic features on or adjacent to the project site.

Surficial deposits in the proposed project area consist of older Quaternary Alluvium, derived as coarse fan deposits from the San Gabriel Mountains to the south. The paleontology records check identified no fossil vertebrate localities anywhere in the vicinity. Somewhat finer-grained older Quaternary deposits, such as those exposed east of Interstate 15, may occur at unknown depth below the exposed older Quaternary Alluvium in the project area. The closest fossil vertebrate locality (designated LACM 1224) identified in these older

Quaternary deposits is east-northeast of the project area, west of Spring Valley Lake (13 miles from the site), that produced a specimen of fossil camel (*Camelops*). Additionally, east-northeast of the project area, on the western side of the Mojave River below the bluffs, an otherwise unrecorded specimen of mammoth was collected in 1961 from older Quaternary Alluvium deposits.

Surface grading or shallow excavations in the uppermost few feet of the coarse older Quaternary Alluvium exposed in the project area are unlikely to uncover significant vertebrate fossils. Deeper excavations that extend into finer-grained older Quaternary deposits, however, may well encounter significant fossil vertebrate remains. The CRA, therefore, recommends any substantial excavations in the project area be monitored to allow for recovery of fossil remains discovered. To minimize the potential for impact to paleontological resources, the project would be subject to Mitigation Measure PR-1, which involves pre-grading preparation of a paleontological monitoring plan by a qualified, County-approved paleontologist.

If grading or excavation activities reach depths of two meters or more (5.5 to 6 feet), then Mitigation Measures PR-2 to PR-3 would be implemented to identify, evaluate, and recover paleontological resources. The mitigation measures are consistent with the recommendations set forth by the L.A. County Museum, and their implementation would reduce impacts to paleontological resources to a level that is less than significant.

- d) **Less than Significant Impact with Mitigation Incorporated.** Field surveys conducted as part of the CRA did not encounter any evidence of human remains. The project site is not located on or near a known cemetery, and no human remains are anticipated to be disturbed during the construction phase. Mitigation Measure CR-3 ensures that in accordance with applicable regulations, construction activities would halt in the event of discovery of human remains, and consultation and treatment would occur as prescribed by law.

SIGNIFICANCE: Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of project approval to reduce these impacts to a level below significant:

CULTURAL RESOURCES MITIGATION MEASURES:

CR-1 *Construction Monitoring.* A qualified archaeologist will be retained by the Applicant/landowner and approved by the reviewing agencies prior to the commencement of the project. The archaeologist will be on-call to monitor ground-disturbing activities and excavations on the project site following identification of potential cultural resources by project personnel.

CR-2 *Resource Evaluation and Disposition.* If archaeological resources are encountered during implementation of the project, ground-disturbing activities will be temporarily redirected from the vicinity of the find. The archaeologist will be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find and determine appropriate treatment that may include the development and implementation of a data recovery investigation or preservation in place. All cultural resources recovered will be

documented on California Department of Parks and Recreation Site Forms to be filed with the California Historic Resources Information System (CHRIS) San Bernardino Archaeological Information Center (SBAIC) at the San Bernardino County Museum in Redlands, California. The archaeologist will prepare a final report about the find to be filed with the Applicant/landowner and the CHRIS-SBAIC. The report will include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National Register of Historic Places and California Register of Historical Resources and CEQA. The Applicant, in consultation with the Lead Agency and archaeologist, will designate repositories in the event that resources are recovered.

CR-3 Human Remains. If human remains are encountered unexpectedly during construction excavations and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance will occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action will be taken in dealing with the remains. The landowner will then undertake additional steps as necessary in accordance with CEQA Guidelines Section 15064.5(e) and PRC Section 5097.98.

PALEONTOLOGICAL RESOURCES MITIGATION MEASURES:

PR-1 Pre-Construction Responsibilities. A qualified paleontologist will be retained by the Applicant and approved by the County of San Bernardino prior to the implementation of the Proposed Project to execute a paleontological monitoring plan. A qualified paleontologist is defined here as a paleontologist meeting the qualifications established by the Society of Vertebrate Paleontologists. The paleontologist will:

1. Review the grading study and coordinate with project engineers to become familiar with the proposed depths and patterns of grading across the project site.
2. Enter into a repository agreement with an accredited institution (such as the San Bernardino County Museum) before grading operations commence to ensure that an appropriate facility has been selected to curate any fossils encountered during the monitoring program.

PR-2 Construction Monitoring. A paleontological monitor, supervised by the paleontologist, will monitor all project-related ground-disturbing activities that reach two meters (5.5 to 6 feet) or more in depth. Pile driving is not considered a ground-disturbing activity for the purposes of this mitigation measure. If fossils are found during ground-disturbing activities, the paleontological monitor will be empowered to halt those activities within 25 feet of the find to allow evaluation of the find and determination of appropriate treatment.

PR-3 Resource Collection and Disposition. The paleontological monitor and/or the paleontologist will collect all significant fossils encountered. All significant fossils will be stabilized and prepared to a point of identification and permanent preservation. The paleontologist will

prepare a final report on the monitoring. If fossils were identified, the report will contain an appropriate description of the fossils, treatment, and curation. A copy of the report will be filed with the Applicant, the County of San Bernardino, and the San Bernardino County Museum, and will accompany any curated fossils.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
VI. GEOLOGY AND SOILS - Will the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 181-B of the California Building Code (2001) creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION: (Check if project is located in the Geologic Hazards Overlay District):

- a) i) **No Impact.** The proposed project site is not located within an Alquist-Priolo Earthquake Fault Zone. While the potential for onsite ground rupture cannot be totally discounted (e.g., unmapped faults could conceivably underlie the project site), the likelihood of such an occurrence is considered low due to the absence of known faults within the site. There is no impact related to the exposure of persons or structures to rupture of a known earthquake fault.
- ii) **Less than Significant Impact.** The project site is within a seismically active region and is potentially subject to strong ground acceleration from earthquake events along major regional faults. The nearest identified fault line to the project site is the San Andreas Fault (located about 8 miles southwest of the site), which is capable of generating significant

seismic activity.

The proposed project would not include any habitable structures. Nonetheless, the design of any structures on-site would incorporate measures to accommodate projected seismic loading, pursuant to existing California Building Code (CBC) and local building regulations. Specific measures that may be used for the proposed project include proper fill composition and compaction; anchoring (or other means of for securing applicable structures); and the use of appropriate pipeline materials, dimensions, and flexible joints. Based on the incorporation of applicable measures into project design and construction, potential project impacts associated with strong seismic ground shaking would be less than significant.

iii) **Less than Significant Impact.** Liquefaction is the phenomenon whereby soils lose shear strength and exhibit fluid-like flow behavior. Other types of seismic-related ground failure include ground rupture (as discussed in Section VI.a.i), landslide (as discussed in Section VI.a.iv), dynamic ground subsidence (or settlement), and lateral spreading.

Loose granular soils are most susceptible to liquefaction, and the phenomenon is generally restricted to saturated or near-saturated soils at depths of less than 50 feet. As detailed in the Geotechnical Investigation prepared for the project by Geocon West (see Appendix D), the soils underlying the region include artificial fill underlain by Holocene Age alluvial deposits consisting of sand, silt, clay, and gravel. Although artificial fill was not encountered during site exploration, fill may exist onsite between excavations and in portions of the site that were not directly explored. Soils on the site are medium dense to very dense. A review of water well data indicates groundwater levels are 850 feet beneath the ground surface. Due to the density of sites and depth of groundwater below the site, the site is not considered to be susceptible to liquefaction. The potential project impacts associated with liquefaction would be less than significant and no further analysis is warranted.

iv) **No Impact.** The proposed project would not have any risks associated with landslides. Landslides are the downslope movement of geologic materials. The stability of slopes is related to a variety of factors, including the slope's steepness, the strength of geologic materials, and the characteristics of bedding planes, joints, faults, vegetation, surface water, and groundwater conditions. The project area is relatively flat terrain where landslides have not historically been an issue; therefore, no significant impacts are anticipated with respect to seismic-related (or other) landslide hazards, and no further analysis is warranted.

- b) **Less than Significant Impact.** Construction activities could result in substantial soil erosion if the sites are not properly designed. The potential impacts of soil erosion would be minimized through implementation of Development Code requirements. Specifically, the applicant would prepare a Stormwater Pollution Prevention Plan (SWPPP) in compliance with the requirements of the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. The SWPPP would prescribe temporary Best Management Practices (BMPs) to control wind and water erosion during and shortly after construction of the project. A preliminary Water Quality Management Plan (WQMP) will be prepared to specify permanent BMPs to control erosion and sedimentation once construction is

complete (see Section IX.c for related discussion). The impact on soil erosion is less than significant and no further analysis is warranted.

- c) **Less than Significant Impact.** The Geotechnical Investigation indicates that site soils typically consist of artificial fill underlain by Holocene Age alluvial deposits consisting of sand, silt, clay, and gravel. Existing artificial fill and alluvial deposits found on-site may be re-used as engineered fill, provided Geotechnical Investigation recommendations are adhered to. From a geotechnical standpoint, the site is suited for driven pier foundations to support the structures associated with the proposed solar array. During construction, the geotechnical engineer would provide on-site observation of site preparation and grading, fill placement and foundation installation, thus ensuring that geotechnical conditions are as anticipated and that the contractor's work meets with the criteria in the approved plans and specifications.

Overall, adherence to the Geotechnical Investigation recommendations and implementation of San Bernardino County Development Code grading standards, as applicable, would minimize the potential impact of on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. General Plan Geologic Hazards Overlay mapping (EHFHC, Victorville/San Bernardino) for the project area indicates that the area is not expected to be subject to landslide or liquefaction. The impact of geologic instability is therefore less than significant and no further analysis is warranted.

- d) **Less than Significant.** Expansive (or shrink-swell) behavior is attributable to the water-holding capacity of clay minerals and can adversely affect the structural integrity of facilities. In general, compliance with Building Code requirements would minimize potential impacts to project facilities. Site soils are determined by the Geotechnical Investigation to be typically medium dense to very dense, are deemed to be non-expansive. Prior to placing any fills or constructing any overlying improvements, loose surface soils would be scarified and compacted according to Geotechnical Investigation specifications.

The lack of housing or permanent employees on the site ensures that risks to human safety would be minimal. Therefore, impacts would be less than significant and no further analysis is warranted.

- e) **No Impact.** The project does not propose to use septic tanks or alternative wastewater disposal systems; therefore, no impacts are would occur. No further analysis is warranted.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
VII GREENHOUSE GAS EMISSIONS - Will the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION:

- a) **Less than Significant Impact.** The project would not generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment. In September 2006, the State enacted the Global Warming Solutions Act (Assembly Bill 32), which was created to address greenhouse gases emitted by human activity and implicated in global climate change. The Act requires that the greenhouse gas (GHG) emissions in California be reduced to 1990 levels by 2020. This is part of a larger plan in which California hopes to reduce its emissions to 80 percent below 1990 levels by 2050.

Additionally, through the California Climate Action Registry (CCAR, now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been developed. GHG sources are categorized into direct sources (i.e., from the project site itself and from activities directly associated with operations) and indirect sources (i.e., not directly associated with the project, but impacted by its operations). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

As discussed in Section III (Air Quality) of this document, the proposed project's primary contribution to air emissions is attributable to construction activities, including the delivery of PV panels, support structures and other project equipment to the site. Project construction would result in GHG emissions from construction equipment, panel and project equipment deliveries, and construction workers' personal vehicles traveling to and from the site. Construction-related GHG emissions vary depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel.

The primary emissions that would result from the proposed project occur as carbon dioxide (CO₂) from gasoline and diesel combustion, with more limited vehicle tailpipe emissions of nitrous oxide (N₂O) and methane (CH₄), as well as other GHG emissions related to vehicle cooling systems. To account for variations in the effectiveness of these gases on climate change, a measure called CO₂-equivalent (CO₂e) is used.

Pursuant to Section 15064.4 of the State CEQA Guidelines, the treatment of GHG

emissions follows a process of quantification of project-related GHG emissions, determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. The AQIA used the CalEEMod and EMFAC2011 computer models to quantify construction-period and operational GHG emissions. Modeling predicts construction activities would generate 350 metric tons CO₂e emissions.

For screening purposes, the temporary construction activity GHG emissions were compared to the chronic operational emissions in the ARB's interim thresholds. The screening level operational threshold is 7,000 metric tons (MT) of CO₂e per year. Construction activities generating a total of 350 MT per year are well below this threshold and are considered less than significant.

Operational-period emissions would be produced through vehicle travel for panel cleaning, maintenance, and security. The AQIA calculates those emissions at about 8 metric tons of CO₂e per year. However, during its operational life, the project would fully offset its operational GHG emissions. The offset effect of solar power results from the displacement of electrical power production that would otherwise occur at fossil-fueled power plants that necessarily generate GHGs alongside electricity. As designed, the 5.8-MW rated plant, with a typical 20 percent solar capacity factor, would annually produce 10,160 megawatt-hour (MW-HR) of electrical energy. The generation of 1 MW-HR of electricity in California produces an average of 0.331 MT of CO₂e. The offset created by 10,160 MW-HR per year from a solar power facility would be 3,360 MT CO₂e. Subtracting the project's operational GHG emissions yields a net GHG benefit of over 3,352 MT CO₂e per year. Therefore, the project would reduce regional GHG emissions during operations, and GHG impacts are considered beneficial.

- b) **Less than Significant Impact.** The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. In December 2011, the County Board of Supervisors adopted a Greenhouse Gas Emissions Reduction Plan (GHG Reduction Plan). The GHG Reduction Plan states that “[w]ith the application of the GHG performance standards, projects that are exempt from CEQA and small projects that do not exceed 3,000 MTCO₂e per year will be considered to be consistent with the Plan and determined to have a less than significant individual and cumulative impact for GHG emissions.” (p. 4-5). Applicable performance standards are identified in Appendix F of the GHG Reduction Plan. As noted in Appendix F, these performance standards apply to all projects and are included as Conditions of Approval when discretionary approvals are granted. Therefore, all applicable performance standards will be included in the Conditions of Approval for the project. In addition, as described in Item VII.a., the project is well below the 3,000 MTCO₂e per year screening threshold.

Because the project will be required to comply with all applicable performance standards identified in the GHG Reduction Plan, and GHG emissions would not exceed the 3,000 MTCO₂e per year screening threshold, the project is determined to be consistent with the County's GHG Reduction Plan.

No significant adverse impacts are identified or anticipated and no mitigation measures are required

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
VIII HAZARDS AND HAZARDOUS MATERIALS - Will the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION:

- a) **Less than Significant Impact.** The proposed project is not expected to result in impacts from hazards and hazardous materials with respect to creating a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This is because the proposed project would not involve the routine transport, use, or disposal of significant amounts of hazardous materials as defined by the Hazardous Materials Transportation Uniform Safety Act. During construction, the proposed project would involve the transport of general construction materials (i.e., concrete, wood, metal,

fuel, etc.) as well as the materials necessary to construct the proposed PV arrays. Construction activities would involve the use of hazardous materials such as fuels and greases for the fueling and servicing of construction equipment. Such substances may be stored in temporary storage tanks/sheds that would be located on the project site. Although these types of materials are not acutely hazardous, they are classified as hazardous materials and create the potential for accidental spillage, which could expose workers. The use, storage, transport, and disposal of hazardous materials used in construction of the facility would be carried out accordance with federal, state, and County regulations. No extremely hazardous substances (i.e., governed under Title 40, Part 335 of the Code of Federal Regulations) are anticipated to be produced, used, stored, transported, or disposed of as a result of project construction. As needed, Material Safety Data Sheets for all applicable materials present on-site would be made readily available to on-site personnel as required by the SBCFD Hazardous Materials Division. During construction of the facility, non-hazardous construction debris would be generated and disposed of in local landfills. Sanitary waste would be managed using portable toilets, with waste being disposed of at approved sites.

The PV panels and inverters would produce no waste during operation. PV panels are in a solid and non-leachable state; broken PV panels would not be a source of pollution to stormwater.

The nearest designated truck routes to the site are US 395 and I-15, 4 and 5 miles to the east, respectively, and accessible via Phelan Road.

The project would be required to comply with federal, state, and county laws, ordinances, and regulations; therefore, the project would result in less-than-significant impacts related to the creation of significant hazards through the routine transport, use, or disposal of hazardous materials.

- b) **Less than Significant Impact.** The proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. With the exception of construction-related materials such as fuels, lubricants, adhesives, and solvents, the proposed project would not generate or require the use or storage of significant quantities of hazardous substances. The toxicity and potential release of these materials would depend on the quantity of material, type of storage container, safety protocols used on the site, location and/or proximity to residences, frequency and duration of spills or storage leaks, and the reactivity of hazardous substances with other materials. Therefore, a complete list of all materials used on-site, how the materials would be transported, and in what form they would be used would be recorded to maintain safety and prevent possible environmental contamination or worker exposure. Compliance with regulations and standard protocols during the storage, transportation, and usage of any hazardous materials would ensure no substantial impacts would occur. The PV panels used in the proposed project are environmentally sealed collections of PV cells that require no chemicals and produce no waste materials. There is no a battery backup component, thus minimizing the need for transporting, using, or disposing of the hazardous materials that

may be associated with the project. As such, there is a less-than significant impact associated with creating a significant hazard to the public or the environment.

- c) **No Impact.** There is no school located within ¼ mile of the project. The nearest school is 1 mile to the northeast. There would be no impact related to hazardous emissions or the handling of hazardous materials near schools resulting from implementation of the project.
- d) **No Impact.** The project site is not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The proposed project would not create a significant hazard to the public or the environment. Therefore, the project would result in a less than significant impact associated with hazardous materials sites.
- e) **No Impact.** The proposed project area is not located in the vicinity of any public or public use airport. The site is not within the boundaries of an airport land use plan. The nearest public or public use airport is Southern California Logistics Airport, 13 miles to the northeast. The project would result in no safety hazards for people residing or working in the project area as a result of proximity to an airport.
- f) **No Impact.** The proposed project area is not located within the vicinity of a private airstrip; therefore, it would not result in a safety hazard for people residing or working in the project area. The nearest private airstrip is Adelanto Airport, located approximately 9 miles to the north of the project site. There is no impact and no further analysis is warranted.
- g) **No Impact.** Activities associated with the proposed project would not impede existing emergency response plans for the project site and/or other land uses in the project vicinity. The project would not result in any closures of existing roadways that might have an effect on emergency response or evacuation plans in the vicinity of the project site. In addition, all vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. Accordingly, implementation of the proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. There is no impact and no further analysis is warranted.
- h) **Less than Significant Impact.** The project site is not within an area of high or very high fire hazard, as determined by CAL FIRE. However, any development, along with the associated human activity, in previously undeveloped areas increases the potential of the occurrence of wildfires in the region. Although vegetation on the project site consists of native grasses and shrubs, species of non-native plants (noxious weeds) included on the weed list of the California Department of Food and Agriculture may occur in the project area. In addition to posing a major threat to biological resources, the spread of noxious weeds can result in increased fire frequency by providing sufficient fuel to carry fires. As a condition of project approval, the developer will comply with San Bernardino County weed abatement regulations (SBCC§ 23.031-23.043) and periodically clear the site of all non-complying vegetation, including weeds such as Russian thistle (tumbleweed, *Salsola tragus*), London rocket (*Sisymbrium itio*), redstem filaree (*Erodium cicutarium*), foxtail chess (*Bromus madritensis*), and cheatgrass (*Bromus tectorum*). The project will also conform to the requirements of the

Safety Element of the General Plan and the applicable portions of the San Bernardino County Code (primarily Title 2, Division 3, "Fire Protection and Explosives and Hazardous Materials"). Through compliance with these standards, the risks associated with wildfires on the project site are reduced to below a level of significance. No further analysis is warranted.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
IX HYDROLOGY AND WATER QUALITY - Will the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will 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 will not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that will result in substantial erosion or siltation on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structure which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **Less than Significant Impact.** Operation of the project would not require the regular use of water or produce any form of wastewater. Waste Discharge Requirements (issued by the Lahontan Regional Water Quality Control Board) are not applicable to the project. The project would result in less-than-significant impacts related to the violation of any water quality standards. Further discussion on potential water quality impacts is provided in e), below.
- b) **Less than Significant Impact.** Operation of the proposed project would require minimal amounts of water, limited to cleaning of solar panels up to two times per year, using a total of less than 1 acre-foot of water per year. The project will not house permanent employees, nor include onsite restrooms. The project would also create a very small amount of imperviousness—less than 1 percent of the site would be made impervious as a result of the project. Therefore, since the project would not use substantial amounts of groundwater or create large, impermeable surfaces, it would not cause depletion of groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Groundwater aquifer volume and recharge would not be significantly impacted by the implementation of the project.
- c) **Less than Significant Impact.** A review of the site for jurisdictional drainages was completed as part of the BRA (Appendix B). No drainages were found to be present on the site. As described in the Hydrology Report (Appendix E), the project would not otherwise result in any noteworthy change in the drainage pattern of the site, with a negligible (0.5 percent) increase in imperviousness and no substantial structures modifying stormwater flows. The project not result any substantial alteration to the drainage pattern of the site or area, nor would it cause any substantial erosion or siltation on- or off-site.
- d) **Less than Significant Impact.** As described in c.), above, the project would not impact any drainages, and the project would not otherwise result in any noteworthy change in the drainage pattern of the site, with a negligible (0.5 percent) increase in imperviousness and no substantial structures modifying stormwater flows. The Hydrology Report also calculates the runoff generated by the project to be 0.14 acre-feet, which is deemed to be negligible. The project not result any substantial alteration to the drainage pattern of the site or area, nor would it result in any substantial increase in runoff that could cause flooding on-or off-site.
- e) **Less than Significant Impact.** The project site is in a rural area with no developed storm & drainage system. As calculated in the Hydrology Report, site imperviousness would increase only slightly (from 0 percent to 0.5 percent) and runoff from the site would increase a negligible 0.14 acre-feet. Additionally, the project would not contain elements that would cause runoff to be polluted or otherwise degrade the quality of storm waters. The project would have a less than significant impact related to the capacity of storm drainage systems
- f) **Less than Significant Impact.** The project site is in a rural area with no developed storm & drainage system. As calculated in the Hydrology Report, site imperviousness would increase only slightly (from 0 percent to 0.5 percent) and runoff from the site would increase a negligible 0.14 acre-feet. Additionally, the project would not contain elements that would cause runoff to be polluted or otherwise degrade the quality of storm waters. The project would have a less than significant impact related to the capacity of storm drainage systems

and the quality of waters leaving the site.

- g) **No Impact.** The proposed project is a solar energy generation facility, and would not include any housing. Therefore, there would be no impact related to the placement of housing within a FEMA-delineated 100-year flood zone. No further analysis is warranted.
- h) **No Impact.** The proposed project is in Zone X on FEMA map number 06071C6475H and not within a 1 percent annual chance (100-year) flood hazard area. The nearest FEMA-delineated 100-year floodplain is 4.5 miles to the northwest. There would be no impact related to impedance or redirection of flood flows within that 100-year flood zone.
- i) **Less than Significant Impact.** The project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, because the project site is not within any identified path of a potential inundation flow that might result in the event of a dam or levee failure or that might occur from a river, stream, lake or sheet flow situation. There is no impact and no further analysis is warranted.
- j) **No Impact.** The project site would not be subject to inundation by seiche, tsunami, or mudflow. A tsunami is a series of ocean waves generated in the ocean by an impulsive disturbance. Due to the inland location of the proposed project, tsunamis are not considered a threat. A seiche is an oscillating surface wave in a restricted or enclosed body of water generated by ground motion, usually during an earthquake. Inundation from a seiche can occur if the wave overflows a containment wall or the banks of a water body. No impacts are expected to occur because the project is not adjacent to any marine or inland water bodies. The soils in the project area are well-drained, the terrain is relatively flat, and mudflows have not historically been an issue in the proposed project area. No further analysis is warranted.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
X. LAND USE AND PLANNING - Will the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **Less than Significant Impact.** The project would not physically divide an established community, because the project is located in an unincorporated part of the County that has sparse residential development and would occupy an area that is currently vacant. The project would not require the abandonment or relocation of any public rights-of-way, nor would it create an impediment for residents in the project area. The project would prevent unauthorized crossing of the project site, which was used as an extension of Hollister Road. There is no dedicated right-of-way or easement crossing the site to extend Hollister Road. All parcels in the vicinity of the site have legal access from other directions, and unauthorized crossing of the project site is therefore not required to guarantee access to local parcels. Therefore, there would be no impact related to the dividing of an established community. No further analysis is warranted.
- b) **No Impact.** The project site's land use zoning district is IN. According to Development Code Section 82.06.040, electrical power generation is a conditionally permitted use in this district. Therefore, approval of the CUP included in the project application would allow the project to be consistent with its land use zoning designation. It is noted that an inconsistency currently exists within the Development Code, where Section 84.29.020 fails to identify the IN district as an acceptable zone for renewable energy generation facilities. To rectify this, the County Board of Supervisors recently approved a Development Code Amendment confirming that solar power plants are conditionally permitted within the IN zone. This Code Amendment will take effect in January 2014.
- There are no other applicable plans adopted for the purpose of avoiding or mitigating an environmental effect that govern land use at the site. There is a less than significant impact and no further analysis is warranted.
- c) **No Impact.** The project area is within the boundaries of the West Mojave Plan. The West Mojave Plan is a federal land use plan amendment to the Bureau of Land Management's California Desert Conservation Area (CDCA) Plan that presents a comprehensive strategy to

conserve and protect sensitive plants and animals and the natural communities of which they are a part. The West Mojave Plan is applicable only to BLM-administered public lands within the West Mojave Plan area. Although the study area is within the West Mojave Plan area, it is not encompassed within BLM lands; therefore, future development would not be subject to the requirements of the West Mojave Plan.

A West Mojave Habitat Conservation Plan (HCP) for private lands is in preparation, and has not yet been approved by local or State agencies. Should the West Mojave HCP for development on private lands be adopted prior to implementation of the project, any future development would have to be consistent with its conditions.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XI. MINERAL RESOURCES - Will the project:				
a) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION: (Check if project is located within the Mineral Resource Zone Overlay):

- a) **No Impact.** The project will not result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state, because there are no identified important mineral resources on the project site and the site is not within a Mineral Resource Zone Overlay. No further analysis is warranted.
- b) **No Impact.** The proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan (see discussion in Item XI.a). There is no impact and no further analysis is warranted.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XII. NOISE - Will the project result in:				
a) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION: (Check if the project is located in the Noise Hazard Overlay District or is subject to severe noise levels according to the General Plan Noise Element):

- a) **Less than Significant Impact with Mitigation Incorporated.** Sensitive noise receptors in the vicinity of the project site include scattered residences. Without mitigation, noise generated from the proposed project could temporarily exceed standards established in the General Plan or Noise Ordinance, or applicable standards of other agencies. Specifically, construction of the proposed project may potentially create some elevated short-term construction noise impacts from construction equipment between the hours of 7 a.m. and 7 p.m. Section 83.01.080(g)(3) specifically exempts “temporary construction, maintenance, repair, or demolition activities” from County noise standards, when such activities occur between 7 a.m. and 7 p.m., excluding Sundays and federal holidays.” With implementation of Mitigation Measure N-1, no significant impacts are anticipated. The mitigation measure ensures that noise generation from construction equipment/vehicle operation would be limited to daytime hours and would be localized, temporary, and transitory in nature. Construction-period impacts are therefore less than significant with the implementation of Mitigation Measure N-1.

Operation of the proposed project would not generate audible levels of noise or perceptible levels of vibration in the surrounding community. Onsite noises would be limited to small motors that rotate the photovoltaic panels on the single-axis tracking system, noise from

inverters and pad-mounted transformers, and maintenance activities (including occasional cleaning, drive motor repair, tracker repair, electrical connection repair, and panel replacement). The small motors used to rotate the panels would produce very low levels of noise, operate only during daylight, and be imperceptible from nearby residences. Similarly, the proposed inverters and pad-mounted transformers are small in scale and located over 250 feet from nearby residences, minimizing potential noise impacts. Maintenance activities would be infrequent and only during daylight hours. The project would not include dwellings or other development, nor would it have the potential to generate any significant number of additional vehicle trips after construction is completed.

Based on this analysis, it is concluded that the proposed project would not have a substantial adverse effect on noise during operations; impacts would be less than significant and no mitigation measures are required to reduce operational-period impacts.

- b) **Less than Significant Impact.** Groundborne vibration and groundborne noise could originate from earth movement during the construction phase of the proposed project as well as from the operation and maintenance of the facilities. Operation of the proposed project would introduce noise that would be associated with the moving parts of the tracker panels as well as general maintenance activities associated with the facility. Noise from these operational generators would be minimal in nature and would not create a significant noise impact within the surrounding area. The project would be expected to comply with all applicable requirements for long-term operation, as well as with measures to reduce excessive groundborne vibration and noise, to ensure that the project would not expose persons or structures to excessive groundborne vibration. Impacts would be less than significant.
- c) **Less than Significant Impact.** The proposed project would not create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. The project would result in temporary noise increases during construction but would not create any substantial permanent increase in the ambient noise levels. Operational-period activities would include the occasional use of vehicles and the use of equipment that produce minimal noise levels at site boundaries.

Inverters would be centrally located in the solar field. The final inverter design has not yet been determined; however, uncontrolled inverter noise is expected to be up to 61 dBA at a distance of 10 meters (33 feet) from the inverters. Noise would only be produced by inverters during daytime hours, when the PV panels are producing electricity. Transformers would likely be located with the inverters. A typical inverter transformer in such an installation would be a 1,000 kVA liquid-immersed distribution transformer, which would result in average sound levels of 58 dBA at the source based on National Electrical Manufacturers Association (NEMA) requirements. While no specific transformer model has been selected, any transformer used onsite would follow the NEMA requirements, resulting in an average sound level of 58 dBA. The combined noise level of each inverter and transformer pair would drop to below 55 dBA at 100 feet, a distance which is within project boundaries or within public rights-of-way. Therefore, the combined noise of the inverters and transformers would be well

below the Development Code's standard for stationary noise sources in residential areas of 55 dBA between 7 a.m. and 10 p.m. and 45 dBA between 10 p.m. and 7 a.m. (Table 83-2). Because the inverters would not be operating outside of daytime hours, there would be virtually no operational noise during nighttime hours. Therefore, the project would not have a substantial adverse effect related to a substantial permanent increase in ambient noise levels and no mitigation measures are required.

- d) **Less than Significant Impact with Mitigation Incorporated.** Noise generated during the project's 4.5-month construction period could potentially result in some temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Specifically, construction of the proposed project may potentially create some elevated short-term construction noise impacts from construction equipment. Mitigation Measure N-1 would ensure that impacts are below a level of significance by limiting noise-generating activities to the hours of 7 a.m. to 7 p.m., requiring the muffling of construction equipment where feasible, and requiring that stationary construction equipment be placed in a manner so that emitted noise is directed away from sensitive receptors.

During operations, noise from the facility would occur periodically due to occasional maintenance activities, twice-annual washings, and periodic visits by security staff. These activities would produce limited amounts of noise from pickup trucks and other light vehicles; such impacts would be temporary. Additionally, operating vehicles would only be located at any single point on the site for a very limited duration. Maintenance, repair, and washing activities would occur exclusively during daylight hours.

Because these impacts are a result of temporary maintenance activities, and with implementation of Mitigation Measure N-1, which limits these temporary activities to the hours of 7 a.m. to 7 p.m., excluding Sundays and Federal holidays, they fall under the exemption provided by Section 83.01.080(g)(3) of the Development Code. Therefore, with implementation of Mitigation Measure N-1, temporary or periodic noise impacts would be less-than-significant.

- e) **No Impact.** The proposed project area is not located within the boundaries of an airport land use plan, and is not in the vicinity of an airport. The nearest airport is Southern California Logistics Airport, 13 miles to the northeast. Due to the distance of the airport from the project site, there would be no noise impacts from the airstrip on workers in the area.
- f) **No Impact.** The proposed project area is not located within the vicinity of a private airstrip. The nearest private airstrip is Adelanto Airport, located approximately 9 miles to the northwest of the project area. Due to the distance of the airstrip from the project site, there would be no noise impacts from the airstrip on workers in the area.

SIGNIFICANCE: Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of project approval to reduce these impacts to a level below significant:

NOISE MITIGATION MEASURES:

N-1 *Noise Mitigation.* The developer will submit for review and obtain approval of an agreement letter that stipulates that all construction contracts/subcontracts contain as a requirement that the following noise attenuation measures be implemented:

- a) *Noise levels of any project use or activity will be maintained at or below adopted County noise standards (SBCC 83.01.080). The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.*
- b) *Exterior construction activities will be limited between 7 a.m. and 7 p.m. There will be no exterior construction activities on Sundays or National Holidays.*
- c) *Construction equipment will be muffled per manufacturer's specifications. Electrically powered equipment will be used instead of pneumatic or internal combustion powered equipment, where feasible.*
- d) *All stationary construction equipment will be placed in a manner so that emitted noise is directed away from sensitive receptors nearest the project site.*

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XIII. POPULATION AND HOUSING - Will the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **No Impact.** The proposed project will not induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). Construction is anticipated to take approximately 4.5 months, with a peak workforce of 65 construction workers on the site. These workers would commute to the site from nearby communities such as Pinon Hills and Phelan, with some traveling from more distant areas such as Victorville, Hesperia, and San Bernardino. There would be no permanent staffing onsite during operations. Accordingly, the proposed project would not result in any impacts to housing or related infrastructure, nor would it require construction of additional housing. The project would not result in a substantial adverse effect related to substantial population growth in the area, and no mitigation measures are required.
- b) **No Impact.** The proposed project would not displace existing housing. There would be no impact related to displacement of housing.
- c) **No Impact.** The proposed project would not displace local residents. There would be no impact related to the displacement of people.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
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XIV. PUBLIC SERVICES

- a) Will the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **Fire – Less than Significant Impact.** The proposed project area is serviced by the SBCFD. The nearest fire station is Baldy Mesa Station 16, located 3.5 miles to the northeast of the project site. This station houses Brush Patrol vehicles. Phelan Station 10, located 7 miles west of the project site, houses one Medic Ambulance and one Medic Engine (Type 1). The proposed project would not substantially impact service ratios, response times, or other performance objectives related to fire protection. However, during construction, some public services including fire protection may be required; these would be short-term requirements and would not require increases in the level of public service offered or affect the agency's response time. The project would incorporate perimeter and internal access driveway systems that are accessible to emergency equipment. Entry gates would incorporate knox locks or similar devices to allow 24-hour access for emergency responders.

Any development, along with the associated human activity, in previously undeveloped areas increases the potential of the occurrence of wildfires. Comprehensive safety measures that comply with federal, state, and local worker safety and fire protection codes and regulations would be implemented for the proposed project that would minimize the potential for fires to occur during project construction and operations. Because of the low probability and short-term nature of potential fire protection needs during construction, the proposed project would not result in significant impacts associated with fire protection.

Police Protection – Less than Significant Impact. The proposed project area and other

unincorporated portions of the County are served by the SBCSD. The proposed project would not impact service ratios, response times, or other performance objectives related to police protection. However, during construction, some public services including police protection may be required. These would be short-term requirements and would not require increases in the level of public service offered or affect the agency's response times. In order to protect against theft and vandalism, the proposed project would employ its own security patrol crews to survey the project site during construction and operation of the project. Additionally, the project would incorporate security fencing and would be remotely monitored.

Schools – No Impact. Long-term operation of the proposed facilities would place no demand on school services because it would not involve the construction of facilities that require such services and would not involve the introduction of a temporary or permanent human population into this area. There would be no impact on schools and no further analysis is warranted.

Parks – No Impact. Long-term operation of the proposed facilities would place no demand on parks because it would not involve the construction of housing and would not involve the introduction of a temporary or permanent human population into this area. There would be no impact on parks and no further analysis is warranted.

Other Public Facilities – No Impact. The proposed project would not result in an increased resident population or a significant increase in the local workforce. Based on these factors, the proposed project would not result in any long-term impacts to other public facilities and no further analysis is warranted.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XV. RECREATION				
a) Will the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **No Impact.** The proposed would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. No new residences or recreational facilities would be constructed as part of the proposed project and the proposed project would not induce population growth in adjacent areas. No significant adverse impacts on recreation would result from implementation of the project and no further analysis is warranted.
- b) **No Impact.** The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. No new residences or recreational facilities would be constructed as part of the proposed project. The proposed project would not induce population growth in adjacent areas and would not increase the use of recreational facilities in surrounding neighborhoods. No significant adverse impacts on recreation would result from implementation of the project and no further analysis is warranted.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XVI. TRANSPORTATION/TRAFFIC – Will the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and greenways, pedestrian and bicycle paths, and mass transit.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **Less than Significant Impact.** A Trip Generation Analysis was prepared for the project by RGP Planning & Development Services in June 2013 (see Appendix F). The Trip Generation Analysis reveals that the proposed project would not result in any decline in the performance of the area's circulation system. During construction, a maximum of 98 passenger car equivalent (PCE) trips per day would occur, including a combination of passenger vehicles and large trucks. This number of trips would have a minimal impact on access routes to the project site, including SR-138 and Phelan Road. During operations, the project would be unmanned and would generate less than one roundtrip per day for security and maintenance purposes.

Due to the rural nature of the project area, alternative means of transportation, including mass transit and pedestrian and bicycle routes, are generally unavailable, and would therefore not be negatively impacted by the project. Because the site would be

unmanned, there would be no increase in demand for alternative means of transportation.

Therefore, the proposed project would not conflict with any applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. No significant adverse impacts on transportation or traffic would result from implementation of the project and no further analysis is warranted.

- b) **Less than Significant Impact.** As noted under impact a), above, the Trip Generation Analysis prepared for the project reveals that the proposed project would not result in any decline in the performance of the area's circulation system during the operational period. During construction, there would be an impact to Phelan Road, which currently operates at a Level of Service F. Because the construction period is of limited duration and construction trucks would travel throughout the day rather than being concentrated during peak hours, this impact is less than significant. The proposed project would therefore not 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.

The proposed project would result in a less-than-significant increase in traffic in relation to the existing traffic load and capacity of the street system. At the initiation of project construction, equipment that may include water trucks, backhoes, and loaders would be mobilized to the project site using White Road. This equipment would then be stored onsite for the duration of construction and used as construction progresses. During operations, the project would be unmanned and would generate very few trips per week for security and maintenance purposes. Based on these facts, no significant adverse impacts on transportation or traffic would result from implementation of the project and no further analysis is warranted.

- c) **No Impact.** The proposed project would not affect air traffic patterns. The project site is not within the vicinity of any airport. The only substantial aboveground modifications would be solar panels and associated equipment with a maximum height of approximately 12 feet.

Potential impacts associated with reflectivity and glare are discussed in Section I, above. Based on the analysis provided in Section I, the project would result in less-than-significant impacts related to glare. Therefore, no significant adverse impacts on air traffic patterns would result from implementation of the project and no further analysis is warranted.

- d) **No Impact.** The proposed project would not include design features that could affect traffic safety, nor would it cause incompatible uses to be present on local roads. Project gates would be inset in accordance with County design standards to prevent vehicle stacking into public roads. No new roads are proposed as part of this project, and no significant increase in traffic is projected during project construction or operations. Therefore, no significant adverse impacts related to roadway design features or incompatible uses would result from implementation of the project and no further analysis is warranted.

- e) **No Impact.** The proposed project would not result in inadequate emergency access to the project area. During project construction, public roads would remain open and available for use by emergency vehicles and other traffic. The proposed project would not result in any roadway closures in the vicinity of the project site. The project site would provide emergency access paths as approved by the SBCFD. The site's entry gate would be equipped with Knox locks or similar devices to permit emergency responders to enter the site 24 hours per day. Perimeter and internal drives would be included to allow access to all points within the project site.
- f) **No Impact.** Due to the rural nature of the project area, no significant public transit, bicycle, or pedestrian facilities presently exist or are planned for implementation in the vicinity of the project site. No alternative transportation policies, plans, or programs have been designated for the proposed project area. Because the project would be unmanned during operations, project implementation would not result in an increase in demand or decline in performance for public transit, bicycle, or pedestrian facilities in the region. Therefore, the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. No significant adverse impacts would result from implementation of the project and no further analysis is warranted.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XVI. UTILITIES AND SERVICE SYSTEMS - Will the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded, entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION:

- a) **No Impact.** The proposed project would not exceed wastewater treatment requirements of the Lahontan RWQCB. During construction, wastewater would be contained within portable toilet facilities and disposed of at an approved site. No employees would be permanently stationed at the site, and no permanent restrooms are planned. The project would discharge uncontaminated water that is used to clean the solar panels, with no toxicants or cleaning agents used. The County General Plan defers to applicable RWQCB water control requirements, and the proposed project's water discharge does not require treatment or permitting according to the regulations of the Lahontan RWQCB.
- b) **No Impact.** The proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. The project would require minimal water use, consisting of less than 1 acre-foot of water for panel cleaning per year. Because the site would not contain a permanent workforce, no toilet facilities would be required and there would be no demand for wastewater service.

- c) **No Impact.** The proposed project would not require the construction or expansion of stormwater drainage facilities. The proposed project would discharge uncontaminated water that is used to clean the solar panels, with no toxicants or cleaning agents used. The insubstantial quantity of discharged water generated by cleaning (less than 1 acre-foot) would evaporate or be absorbed into the soils onsite. Impervious surfaces created by the project would amount to less than 1 percent of the on the project site.
- d) **No Impact.** It is expected less than 1 acre-foot of water would be required to wash the panels each year. Water would be delivered by truck for this purpose. The project would not be served by a direct connection to any water system, or by an on-site well. Because of the negligible water supply requirements for the project (equivalent to about two single-family homes), there are no impacts associated with the need for new or expanded water supply entitlements.
- e) **No Impact.** The proposed project would not require or result in the construction of new wastewater treatment facilities or the expansion of existing wastewater treatment facilities. Accordingly, no impacts are anticipated from implementation of the proposed project.
- f) **Less than Significant Impact.** Less than significant impacts related to landfill capacity are anticipated from the proposed project. The proposed project largely consists of short-term construction activities (with short-term waste generation limited to minor quantities of construction debris) and would not result in long-term solid waste generation. Solid wastes associated with the proposed project would be disposed of as appropriate in local landfills or at a recycling facility. The nearest active landfill is the Victorville Sanitary Landfill, located 19 miles northeast of the project site. This landfill is not scheduled to cease operations until the year 2047.

The panels and tracking system would eventually need to be disposed of (decommissioned). Most parts of the proposed PV system are recyclable. Panels typically consist of silicon, glass, and a metal frame. Tracking systems (not counting the motors and control systems) typically consist of aluminum and concrete. All of these materials can be recycled. Concrete from deconstruction would be recycled through local recyclers. Metal and scrap equipment and parts that do not have free flowing oil would be sent for salvage. Equipment containing any free flowing oil would be managed as hazardous waste and be evaluated before disposal at a properly-permitted disposal facility. Oil and lubricants removed from equipment would be managed as used oil and disposed in accordance with applicable State hazardous waste disposal requirements.

- g) **Less than Significant Impact.** The proposed project would comply with all federal, state, and local statutes and regulation related to solid waste. The project would consist of short-term construction activities (with short-term waste generation limited to minor quantities of construction debris) and thus would not result in long-term solid waste generation. Solid wastes produced during the construction phase of this project, or during future decommission activity would be disposed of in accordance with all applicable statutes and regulations. Accordingly, anticipated impacts from the proposed project related to landfill capacity are less than significant.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XVII. MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION:

- a) **Less than Significant Impact with Mitigation Incorporated.** As discussed in Section IV. above, without mitigation, the project could result in significant impacts to burrowing owl and nesting bird species. These species are commonly found throughout the region, including in preserved habitat areas and protected open space covering hundreds of thousands of acres. Mitigation Measures BIO-1 through BIO-3, are incorporated to reduce biological impacts on the project site to below a level of significance. With the implementation of these mitigation measures, implementation of the proposed project would not degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.
- b) **Less than Significant Impact.** Cumulative impacts are defined as two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period. The *CEQA Guidelines*, Section 15130 (a) and (b), states:
- (a) *Cumulative impacts shall be discussed when the project's incremental effect is*

cumulatively considerable.

- (b) *The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.*

There are currently no significant project in the entitlement process or under development within the vicinity of the project site. Cumulative impacts would therefore be less than significant.

- c) **Less than Significant Impact.** As described in Sections I through XVI, above, prior to mitigation, the project has potentially significant impacts in the areas of aesthetics, air quality, biological resources, cultural resources, and noise. With the implementation of the mitigation measures provided in this Initial Study, these impacts are reduced to below a level of significance. There are no project impacts which remain significant and unavoidable following implementation of mitigation measures. In addition, for environmental issue areas that were not found to be significantly impacted by the project and therefore do not include mitigation measures, the implementation of project design features and County policies, standards, and guidelines would ensure that there would be no substantial adverse effects on human beings, either directly or indirectly.

Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of project approval to reduce these impacts to a level below significant:

XVIII. MITIGATION MEASURES:

(Any mitigation measures which are not “self-monitoring” will have a Mitigation Monitoring and Reporting Program prepared and adopted at time of project approval. Condition compliance will be verified by existing procedure [CCRF].)

AESTHETICS

AES-1 *Lighting Requirements. The area of illumination from any lighting will be confined to within the site boundaries to minimize impacts to night sky views from surrounding properties. On-site lighting will be fully shielded, diffused, or directed in a manner to avoid glare directed at adjacent properties, roadways or any light spill into any wildland areas surrounding the site that might affect nocturnal animals. No light will project onto adjacent roadways in a manner that interferes with on-coming traffic. All lighting will be limited to that necessary for maintenance activities, security, and safety purposes. All signs proposed by this project will only be lit by steady, stationary, shielded light directed at the sign, by light inside the sign or by direct stationary neon lighting.*

AES-2 *Anti-Reflective/Diffusion Coatings. Solar panels and hardware shall be designed to minimize glare and spectral highlighting. To the extent feasible, emerging*

technologies shall be utilized that introduce diffusion coatings and nanotechnological innovations that will effectively reduce the refractive index of the solar cells and protective glass. These technological advancements are intended to make the solar panels more efficient at converting incident sunlight into electrical power, but have the tertiary effect of reducing the amount of light that escapes into the atmosphere in the form of reflected light, which would be the potential source of glare and spectral highlighting. The developer shall submit for review and gain approval of technical specifications for the proposed coatings or other proposed methods to reduce glare and spectral highlighting prior to issuance of building permits. .

AIR QUALITY

AQ-1 AQ/Operational Mitigation. Operation of all off-road and on-road diesel vehicles/equipment will comply with the County Diesel Exhaust Control Measures [SBCC §83.01.040 (c)], including but not limited to:

- h) Equipment/vehicles will not be left idling for periods in excess of five minutes.
- i) Engines will be maintained in good working order to reduce emissions.
- j) Onsite electrical power connections will be made available where feasible.
- k) Ultra low-sulfur diesel fuel will be utilized.
- l) Electric and gasoline powered equipment will substituted for diesel powered equipment where feasible.
- m) Signs will be posted requiring all vehicle drivers and equipment operators to turn off engines when not in use.
- n) All transportation refrigeration units (TRUs) will be provided electric connections.

AQ-2 AQ/Dust Control Plan. The developer will prepare, submit and obtain approval from County Planning of a Dust Control Plan (DCP) consistent with MDAQMD guidelines and a letter agreeing to include in any construction contracts/subcontracts a requirement that project contractors adhere to the requirements of the DCP. The DCP will include the following elements to reduce dust production:

- h) Exposed soils and haul roads will be watered three (3) times per day to reduce fugitive dust during all grading/construction activities. Inactive areas will be treated with soil stabilizers such as hay bales or aggregate cover.
- i) Street sweeping will be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles.
- j) Site access driveways and adjacent streets will be washed daily, if there are visible signs of any dirt track-out at the conclusion of any workday.
- k) Construction vehicle tires will be washed prior to leaving the project site.
- l) All trucks hauling dirt away from the site will be covered, and speeds on unpaved roads will be reduced below 15 miles per hour.

BIOLOGICAL RESOURCES

BIO-1 *Burrowing Owl Mitigation – Pre-Construction Surveys.* Within 14 days prior to ground disturbance, the Applicant will retain a qualified biologist to conduct burrowing owl surveys within the area to be disturbed. The survey will be performed by walking parallel transects spaced no more than 20 meters apart, and will be focused on detecting burrows that are occupied, or are suitable for occupation, by the burrowing owl. The results of the surveys, including graphics showing the locations of any active burrows detected and any avoidance measures required, will be submitted to the County of San Bernardino and the California Department of Fish & Wildlife within 14 days following completion of the surveys. If active burrows are detected, the following take avoidance measures will be implemented:

- If burrowing owls are observed using burrows on-site during the non-breeding season (September through January, unless determined otherwise by a qualified biologist based on field observations in the region), occupied burrows will be left undisturbed, and no construction activity will take place within 300 feet of the burrow where feasible (see below).
- If avoiding disturbance of owls and owl burrows on-site is infeasible, owls will be excluded from all active burrows through the use of exclusion devices placed in occupied burrows in accordance with California Burrowing Owl Consortium (1993) protocols. Specifically, exclusion devices, utilizing one-way doors, will be installed in the entrance of all active burrows. The devices will be left in the burrows for at least 48 hours to ensure that all owls have been excluded from the burrows. Each of the burrows will then be excavated by hand and/or mechanically and refilled to prevent reoccupation. Exclusion will continue until the owls have been successfully excluded from the disturbance area, as determined by a qualified biologist.
- Any active burrowing owl burrows detected on-site during the breeding season (February through August, unless determined otherwise by a qualified biologist based on field observations in the region), will not be disturbed. Construction activities will not be conducted within 300 feet of an active on-site burrow at this season.

BIO-2 *Burrowing Owl Mitigation – Management Plan.* Prior to issuance of a grading permit, a habitat management plan for the burrowing owl will be developed. The plan will include provisions for protecting foraging habitat and replacing any active burrows from which owls may be passively evicted as allowed by Mitigation Measure BIO-1. At a minimum, the plan will include the following elements:

- If occupied burrows are to be removed, the plan will contain schematic diagrams of artificial burrow designs and a map of potential artificial burrow locations that would compensate for the burrows removed.

- *All active on-site burrows excavated as described in Mitigation Measure BIO-1 will be replaced with suitable natural or artificial burrows within the preservation areas approved by the County of San Bernardino.*
- *Measures prohibiting the use of rodenticides during the construction process if any active on-site burrows are identified.*
- *The plan will ensure that adequate suitable burrowing owl foraging habitat is provided in proximity to natural or artificial burrows within off-site mitigation areas.*

The Burrowing Owl Management Plan will be submitted to the County of San Bernardino and the California Department of Fish and Wildlife for review and approval prior to issuance of a grading permit for the Project.

BIO-3 *Nesting Bird Mitigation – Pre-Construction Surveys. Within 30 days prior to vegetation clearing or ground disturbance associated with construction or grading that would occur during the nesting/breeding season (February through August, unless determined otherwise by a qualified biologist based on observations in the region), the Applicant will retain a qualified biologist to determine if active nests of species protected by the Migratory Bird Treaty Act or the California Fish and Game Code are present within or adjacent to the disturbance zone or within 100 feet (300 feet for raptors) of the disturbance zone. The surveys will be conducted no more than seven days prior to initiation of disturbance work within active project areas. If ground disturbance activities are delayed, then additional pre-disturbance surveys will be conducted such that no more than seven days will have elapsed between the survey and ground disturbance activities. If ground disturbance will be phased across the project site, pre-disturbance surveys may also be phased to conform to the development schedule.*

If active nests are found, clearing and construction within 100 feet of the nest (or a lesser distance if approved by the U.S. Fish & Wildlife Service) will be postponed or halted, until the nest is vacated and juveniles have fledged, as determined by the biologist. Avoidance buffers will be established in the field with highly visible construction fencing or flagging, and construction personnel will be instructed on the sensitivity of nest areas. A qualified biologist will serve as a construction monitor during those periods when construction activities will occur near active nests to ensure that no inadvertent impacts on these nests occur.

The results of pre-construction nesting bird surveys, including graphics showing the locations of any nests detected, and documentation of any avoidance measures taken, will be submitted to the County of San Bernardino and California Department of Fish & Wildlife within 14 days of completion of the pre-construction surveys or construction monitoring to document compliance with applicable state and federal laws pertaining to the protection of native birds.

CULTURAL AND PALEONTOLOGICAL RESOURCES

CR-1 *Construction Monitoring. A qualified archaeologist will be retained by the Applicant/landowner and approved by the reviewing agencies prior to the commencement of the project. The archaeologist will be on-call to monitor ground-disturbing activities and excavations on the project site following identification of potential cultural resources by project personnel.*

CR-2 *Resource Evaluation and Disposition. If archaeological resources are encountered during implementation of the project, ground-disturbing activities will be temporarily redirected from the vicinity of the find. The archaeologist will be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find and determine appropriate treatment that may include the development and implementation of a data recovery investigation or preservation in place. All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the California Historic Resources Information System (CHRIS) San Bernardino Archaeological Information Center (SBAIC) at the San Bernardino County Museum in Redlands, California. The archaeologist will prepare a final report about the find to be filed with the Applicant/landowner and the CHRIS-SBAIC. The report will include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National Register of Historic Places and California Register of Historical Resources and CEQA. The Applicant, in consultation with the Lead Agency and archaeologist, will designate repositories in the event that resources are recovered.*

CR-3 *Human Remains. If human remains are encountered unexpectedly during construction excavations and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance will occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action will be taken in dealing with the remains. The landowner will then undertake additional steps as necessary in accordance with CEQA Guidelines Section 15064.5(e) and PRC Section 5097.98.*

PR-1 *Pre-Construction Responsibilities. A qualified paleontologist will be retained by the Applicant and approved by the County of San Bernardino prior to the implementation of the Proposed Project to execute a paleontological monitoring plan. A qualified paleontologist is defined here as a paleontologist meeting the qualifications established by the Society of Vertebrate Paleontologists. The paleontologist will:*

1. *Review the grading study and coordinate with project engineers to become familiar with the proposed depths and patterns of grading across the project site.*
2. *Enter into a repository agreement with an accredited institution (such as the San Bernardino County Museum) before grading operations commence to ensure that an appropriate facility has been selected to curate any fossils encountered during the monitoring program.*

PR-2 *Construction Monitoring.* *A paleontological monitor, supervised by the paleontologist, will monitor all project-related ground-disturbing activities that reach two meters (5.5 to 6 feet) or more in depth. Pile driving is not considered a ground-disturbing activity for the purposes of this mitigation measure. If fossils are found during ground-disturbing activities, the paleontological monitor will be empowered to halt those activities within 25 feet of the find to allow evaluation of the find and determination of appropriate treatment.*

PR-3 *Resource Collection and Disposition.* *The paleontological monitor and/or the paleontologist will collect all significant fossils encountered. All significant fossils will be stabilized and prepared to a point of identification and permanent preservation. The paleontologist will prepare a final report on the monitoring. If fossils were identified, the report will contain an appropriate description of the fossils, treatment, and curation. A copy of the report will be filed with the Applicant, the County of San Bernardino, and the San Bernardino County Museum, and will accompany any curated fossils.*

NOISE

N-1 *Noise Mitigation.* *The developer will submit for review and obtain approval of an agreement letter that stipulates that all construction contracts/subcontracts contain as a requirement that the following noise attenuation measures be implemented:*

- a) *Noise levels of any project use or activity will be maintained at or below adopted County noise standards (SBCC 83.01.080). The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.*
- b) *Exterior construction activities will be limited between 7 a.m. and 7 p.m. There will be no exterior construction activities on Sundays or National Holidays.*
- c) *Construction equipment will be muffled per manufacturer's specifications. Electrically powered equipment will be used instead of pneumatic or internal combustion powered equipment, where feasible.*
- d) *All stationary construction equipment will be placed in a manner so that emitted noise is directed away from sensitive receptors nearest the project site.*

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RGP Planning & Development Services. (2013, June 15). White Road Solar Construction Management Plan & Trip Generation Analysis.

LIST OF APPENDICES

Appendix A Air Quality and Greenhouse Gas Emissions Impact Analysis

Appendix B Biological Reports

General Biological Resources Assessment (May 2013) – *includes Desert Tortoise and Rare Plants surveys*

Focused Surveys for Burrowing Owl (July 2013)

Mojave Ground Squirrel Survey (August 2013)

Appendix C Cultural Resources Assessment – *includes Paleontological Resources letter*

Appendix D Geotechnical Investigation

Appendix E Preliminary Hydrology Report

Appendix F Construction Management Plan and Trip Generation Letter

EXHIBIT E

Comments from LRWQCB and Response



Lahontan Regional Water Quality Control Board

February 10, 2014

File: Environmental Doc Review
San Bernardino County

Chris Conner, Senior Planner
County of San Bernardino Land Use Services
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COMMENTS ON THE CONDITIONAL USE PERMIT APPLICATION FOR SUN EDISON – WHITE ROAD SOLAR FACILITY, SAN BERNARDINO COUNTY, STATE CLEARINGHOUSE NUMBER 2014011021

The California Regional Water Quality Control Board, Lahontan Region (Water Board) staff received the Conditional Use Permit (CUP) for the above-referenced project (Project) on January 13, 2014. The CUP was prepared by San Bernardino County (County) and submitted in compliance with provisions of the California Environmental Quality Act (CEQA). 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 CUP, we have determined that impacts to ephemeral drainages from planned road crossings constructed onsite may require a Clean Water Act (CWA) section 401 water quality certification for impacts to federal waters or dredge and fill waste discharge requirements, both obtained from the Water Board. In addition, the Project proponent must obtain a storm water permit from the State Water Resources Control Board (State Water Board) and ensure that an effective combination of sediment and erosion control best management practices (BMPs) are implemented to treat storm water runoff during construction and post-construction storm water runoff during the life of the Project.

Project Description

The Project is a photovoltaic (PV) solar energy development that would generate up to 5.8 megawatts of electricity. The Project site is undisturbed land owned by the Snowline Joint Unified School District and will be leased to Sun Edison. The Project site totals 48 acres and is located within the Phelan community, an unincorporated area of San Bernardino County. Project components include installation of over 18,000 solar panels, an electrical collection system, an onsite current inverter, access roads, and fencing. Electricity generated at the Project site will be transported to the local power network, which has power lines located along White Road. White Road bounds the Project site to the east.

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 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.

Specific Comments

1. Water Board staff have identified potential ephemeral drainages on the Project site. Although the environmental document stated that the Project has been designed to avoid ephemeral drainages, access roads around and through the site are planned, along with powerline extensions that may be overhead or underground. Therefore, ephemeral drainages may be impacted. We request that the Project proponent obtain a CWA section 401 water quality certification or dredge and fill waste discharge requirements from the Water Board (see Permitting Requirements below).
2. 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. Where feasible, existing vegetation should be mowed so that after construction the vegetation could reestablish and help mitigate for potential storm water impacts.
3. Water Board staff reviewed the hydrology and erosion potential study and appreciate the detail of the calculations as shown in Figures C-1 to C-5. However, we noted that the potential for scour around the concrete piers that will support the PV panels was not considered. We request an analysis be performed for the potential scouring around the concrete piers supporting the PV panels using the rainfall intensities and durations selected in the hydrology study.
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 the Project. The CUP needs to specify temporary and permanent sediment and erosion control BMPs that will be implemented to mitigate potential water quality impacts related to storm water.

The temporary BMPs need to be implemented for the Project until such time that vegetation has been restored to pre-Project conditions or permanent BMPs are in-place and functioning.

5. We request that construction be performed in manner consistent with Low Impact Development (LID) principles that will minimize impacts to these ephemeral drainages. We also request that existing cuts for roads be used wherever possible, and that new road construction be minimized. We suggest you review the following websites on LID and include applicable practices of LID in the construction narrative for this project:
<http://water.epa.gov/polwaste/green/index.cfm> and
<http://water.epa.gov/polwaste/green/upload/lidnatl.pdf> or
<http://www.lowimpactdevelopment.org/lidarticles.htm>
6. The environmental document states that there are no jurisdictional waters onsite. However, we request that the Jurisdictional Delineation Report prepared for the Project be submitted to the United States Army Corps of Engineers for verification.
7. We request that construction staging areas be sited in designated areas on or around the Project site. An adequate combination of BMPs must be used to prevent unauthorized non-storm water discharges from the site and to stabilize soils from erosion. Construction equipment should use existing roadways to the extent feasible.
8. 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.

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 Resources Control Board (State Water Board) or Lahontan Water Board. The required permits may include:

1. 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.
2. 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.

Mr. Conner

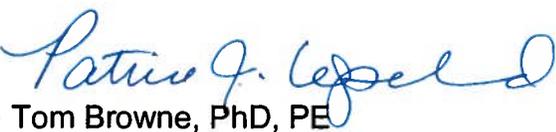
- 4 -

February 10, 2014

3. 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.

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/>.

Thank you for the opportunity to comment on the CUP. If you have any questions regarding this letter, please contact me at (760) 241-7391 (tbrowne@waterboards.ca.gov) or Patrice Copeland, Senior Engineering Geologist, at (760) 241-7404 (patrice.copeland@waterboards.ca.gov).


for: Tom Browne, PhD, PE
Water Resource Control Engineer

cc: State Clearinghouse (SCH 2014011023)
(via email, state.clearinghouse@opr.ca.gov)
Daniel Swenson, US Army Corps of Engineers
(via email, Daniel.p.swenson@usace.army.mil)
Sarah Rains, California Department of Fish and Wildlife
(via email, sarah.rains@wildlife.ca.gov)

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comments.docx

ENVIRONMENT | PLANNING | DEVELOPMENT SOLUTIONS, INC.

March 17, 2014

Tracy Creason
Senior Planner, Land Use Services Department
County of San Bernardino
15900 Smoke Tree Street, Suite 131
Hesperia, CA 92345

Dear Tracy:

RE: Responses to Lahontan RWQCB Comments on Snowline JUSD/SunEdison White Road Site

The following are responses to the comment letter dated February 10, 2014 from the Lahontan Regional Water Quality Control Board:

SPECIFIC COMMENTS

1. *Water Board staff have identified potential ephemeral drainages on the Project site. Although the environmental document stated that the Project has been designed to avoid ephemeral drainages, access roads around and through the site are planned, along with powerline extensions that may be overhead or underground. Therefore, ephemeral drainages may be impacted. We request that the Project proponent obtain a CWA section 401 water quality certification or dredge and fill waste discharge requirements from the Water Board (see Permitting Requirements below).*

Response: Thank you for your comment regarding ephemeral drainages on the project site. The potential for the presence of drainages and wetlands was evaluated on the project site in conjunction with a biological analysis and habitat assessment. This evaluation, completed by AMEC Environment & Infrastructure in May 2013 and included as an appendix to the Initial Study, concludes there are no drainages or other jurisdictional waters present on the site. Based on this determination, there is no requirement for additional permitting from any State or federal agency.

2. *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. Where feasible, existing vegetation should be mowed so that after construction the vegetation could reestablish and help mitigate for potential storm water impacts.*

Response: Thank you for your comment regarding the preservation of vegetation on the site. To the extent feasible, existing vegetation would be retained on the site. Vegetation would be removed only in areas where grading is required and where necessary to place pile foundations.

3. *Water Board staff reviewed the hydrology and erosion potential study and appreciate the detail of the calculations as shown in Figures C-1 to C-5. However, we noted that the potential for scour around the concrete piers that will support the PV panels was not considered. We request an analysis be performed for the potential scouring around the concrete piers supporting the PV panels using the rainfall intensities and durations selected in the hydrology study.*

Response: Thank you for your comment regarding scour impacts on the project site. The project engineer, DeWalt Corporation, performed an analysis of scour impacts. As indicated in their memorandum (Attachment 1), flow velocities for the main flow areas are as high as 7.6 fps. Velocities as high as 3.8 fps occur in the array locations in a minority portion of the central project area. Typically for alluvial soils,

velocities over 2.5 fps can present erosion or scour problems. Potential erosion can be addressed with either directional grading or array pile design. Since velocities are not extremely high, pile extension to allow for scour is a viable solution. If project grading is revised to direct flows away from arrays, then a final design FLO2d model will need to be run to verify adequately reduced velocities. If pile extension is pursued, appropriate soil investigation is required for the scour analysis. Final design of grading and/or pile extensions is to be performed at the time of final design during the permitting process.

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 the Project. The CUP needs to specify temporary and permanent sediment and erosion control BMPs that will be implemented to mitigate potential water quality impacts related to storm water. The temporary BMPs need to be implemented for the Project until such time that vegetation has been restored to pre-Project conditions or permanent BMPs are in-place and functioning.*

Response: Thank you for your comment regarding post-construction stormwater management. Post-construction stormwater management will be controlled through site-specific measures incorporated into the project's Water Quality Management Plan (WQMP), which is required prior to obtaining a grading permit. These measures will be selected based on an assessment of site-specific plans and hydrological conditions. The WQMP will be prepared to the County's standard and to the County's satisfaction. The document will be reviewed for approval by the County prior to project implementation.

5. *We request that construction be performed in manner consistent with Low Impact Development (LID) principles that will minimize impacts to these ephemeral drainages. We also request that existing cuts for roads be used wherever possible, and that new road construction be minimized. We suggest you review the following websites on LID and include applicable practices of LID in the construction narrative for this project: <http://water.epa.gov/polwaste/green/index.cfm> and <http://water.epa.gov/polwaste/green/upload/lidnatl.pdf> or <http://www.lowimpactdevelopment.org/lidarticles.htm>*

Response: Thank you for your comment regarding the implementation of LID principles on the site. Construction on the site will be designed to impact the minimum area required for project implementation. Such measures will be produced on a site-specific basis based on the site's topography, hydrology, and other factors, and will be incorporated, as appropriate, into the site's grading plan, Stormwater Pollution Prevention Plan and WQMP.

6. *The environmental document states that there are no jurisdictional waters onsite. However, we request that the Jurisdictional Delineation Report prepared for the Project be submitted to the United States Army Corps of Engineers for verification.*

Response: Thank you for your comment regarding federal jurisdictional waters on the site. As indicated on page 69 of the project Initial Study/Mitigated Negative Declaration (IS/MND), no drainages were found to be present on the site. Therefore, there is no potential for federal jurisdictional waters to be present, and no need for Army Corps review of the project.

It is noted that local drainages, located outside of the project site, flow to the El Mirage Dry Lake, located to the north. The Army Corps has completed an assessment of another, nearby project (located 6 miles to the west) which flows into the same body of water (Attachment 2). This body has been determined by the Army Corps to be non-jurisdictional for the following reasons:

El Mirage Dry Lake is an intrastate dry lake and a non-relatively permanent waterway (RPW). The published recreational uses of El Mirage Dry lake are limited to a few non-water (no recreational navigation) related activities including hiking, rock hounding, wildlife watching, off-roading area, and ultra-light and other aircraft activity. El Mirage Dry Lake is NOT a traditionally navigable waterway (TNW). This non-RPW has no downstream connectivity to a TNW and has no nexus to interstate or foreign commerce. The non-RPW is NOT an (a)(3) water as defined by 33 CFR 324.3, and the non-RPW does not meet any of the i-iii criteria (no recreation or interstate commerce related to fisheries or industry).

Based on the above information, the Army Corps concluded that this non-RPW is NOT a jurisdictional water of the United States, since the non-RPW has no commerce connection and is not an (a)(3) water by 33 CFR 328.3 and is isolated with no connection to a downstream TNW.

7. *We request that construction staging areas be sited in designated areas on or around the Project site. An adequate combination of BMPs must be used to prevent unauthorized non-storm water discharges from the site and to stabilize soils from erosion. Construction equipment should use existing roadways to the extent feasible.*

Response: Thank you for your comment on construction staging area locations. The project will use existing roadways to the extent feasible to minimize land disturbance. The site is adjacent to an existing roadway (White Road) serving the local community. Construction staging will occur within the site boundaries. Impacts associated with staging areas were analyzed in the IS/MND. See response 4 above regarding the project WQMP.

8. *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.*

Response: Thank you for your comment regarding the scope of appropriate mitigations for the site. Mitigations will be developed on a site-specific basis, taking into account the hydrological conditions existing on the site. Measures will be incorporated into a site-specific WQMP to mitigate impacts as appropriate. The WQMP will be prepared by qualified professionals to the County's standard, and to the County's satisfaction.

PERMITTING REQUIREMENTS

1. *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.*

Response: Thank you for your comment regarding streambed alteration and Section 401 water quality certification. As indicated in the IS/MND and biological reports, there are no drainages or other federal or state jurisdictional present onsite (see responses to Specific Comments 1. and 6., above). Therefore, no waste discharge requirements or streambed alteration approvals are required.

2. *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.*

Response: Thank you for your comment regarding storm water permit requirements. As described on page 59 of the IS/MND, the project is subject to the General Construction Water Permit and would comply with the requirements by preparing and submitting a Stormwater Pollution Prevention Plan (SWPPP) to the County for review and approval prior to obtaining a grading permit.

3. *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.*

Response: Thank you for your comment regarding diversion and/or dewatering activities being subject to discharge and monitoring requirements. Diversion and dewatering activities are not expected as part of the project.



110 S. Montclair Street - Suite 104, Bakersfield, CA 93309
Phone 661-836-9834 FAX 661-836-9761

MEMORANDUM

Attention: Sandy Bergam
Company: DeWalt Corporation
From: Richard Meyer, Meyer Civil Engineering, Inc.
Date: 2-20-2014
RE: Snowline JUSD White Road Solar Project

MCE File: DEW-13-001

Comments:

I am providing the following to address comments in regard to potential scour and erosion on the project site:

“Flow velocities for the main flow areas are as high as 7.6 fps. Velocities as high as 3.8 fps occur in the array locations in a minority portion of the central project area. Typically for alluvial soils, velocities over 2.5 fps can present erosion or scour problems. Potential erosion can be addressed with either directional grading or array pile design. Since velocities are not extremely high, pile extension to allow for scour is a viable solution. If project grading is revised to direct flows away from arrays, then a final design FLO2d model will need to be run to verify adequately reduced velocities. If pile extension is pursued, appropriate soil investigation is required for the scour analysis. Final design of grading and/or pile extensions is to be performed at the time of final design during the permitting process.”

The above has been added to the Executive Summary in the Preliminary Hydrology Report.

A handwritten signature in blue ink that reads "Richard Meyer".



Jurisdictional Delineation Report
Duncan Road Photovoltaic Site
San Bernardino County, California
AMEC Project No. 1355400534
June 2013

ATTACHMENT 2

APPENDIX B

APPROVED JURISDICTIONAL DETERMINATION FROM NEARBY SITE

Jurisdictional Delineation Report
Duncan Road Photovoltaic Site
San Bernardino County, California
AMEC Project No. 1355400534
June 2013

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**APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers**

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 14-Dec-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Los Angeles District, SPL-2009-00884-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : CA - California
County/parish/borough: San Bernardino
City: Phelan
Lat: 34.42636
Long: -117.5841
Universal Transverse Mercator Folder UTM List

UTM list determined by folder location

- NAD83 / UTM zone 36S

Waters UTM List

UTM list determined by waters location

- NAD83 / UTM zone 36S

Name of nearest waterbody: El Mirage Dry Lake

Name of nearest Traditional Navigable Water (TNW): NA

Name of watershed or Hydrologic Unit Code (HUC):

- Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
- Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

- Office Determination Date: 20-Nov-2009
- Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

- Waters subject to the ebb and flow of the tide.
- Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area:¹

Water Name	Water Type(s) Present
Unnamed drainage	Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Area: (m²)

Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: []
OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:
This non-RPW water has been defined as an ephemeral wash with an approximate width of 14-feet and a linear footage of 752-feet within the general project area. The non-RPW is situated in the City of Phelan, and is approximately 14 miles south of El Mirage Dry Lake. Surface flows in the area travel in a general northward direction to El Mirage Dry Lake which is the terminus for most drainages in the area. El Mirage Dry Lake is an intrastate dry lake. Currently, there are no known or published recreational uses of this non-RPW. Furthermore, the published recreational uses of El Mirage Dry lake are limited to a few non-water (no recreational navigation) related activities including hiking, rock hounding, wildlife watching, off-roading area, and ultra-light and other aircraft activity. El Mirage Dry Lake is NOT a TNW or an (a)(3) water. This non-RPW has no downstream connectivity to a TNW and has no nexus to interstate or foreign commerce. The non-RPW is NOT an (a)(3) water as defined by 33 CFR 324.3, and the non-RPW does not meet any of the i-iii criteria (no recreation or interstate commerce related to fisheries or industry) Based on the above information, the Corps concludes that this non-RPW is NOT a jurisdictional water of the United States, since the non-RPW has no commerce connection and is not an (a)(3) water by 33 CFR 328.3 and is isolated with no connection to a downstream TNW.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW
Not Applicable.

2. Wetland Adjacent to TNW
Not Applicable.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: []
Drainage area: []
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics

(a) Relationship with TNW:

- Tributary flows directly into TNW.
 Tributary flows through [] tributaries before entering TNW.
:Number of tributaries

Project waters are [] river miles from TNW.

Project waters are [] river miles from RPW.

Project Waters are [] aerial (straight) miles from TNW.

Project waters are [] aerial(straight) miles from RPW.

- Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:⁵

Tributary Stream Order, if known:
Not Applicable.

(b) General Tributary Characteristics:

Tributary is:
Not Applicable.

Tributary properties with respect to top of bank (estimate):
Not Applicable.

Primary tributary substrate composition:

Not Applicable.

Tributary (conditions, stability, presence, geometry, gradient):

Not Applicable.

(c) Flow:

Not Applicable.

Surface Flow is:

Not Applicable.

Subsurface Flow:

Not Applicable.

Tributary has:

Not Applicable.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:**High Tide Line indicated by:**

Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:**Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).**

Not Applicable.

(iv) Biological Characteristics. Channel supports:

Not Applicable.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**(i) Physical Characteristics:****(a) General Wetland Characteristics:****Properties:**

Not Applicable.

(b) General Flow Relationship with Non-TNW:**Flow is:**

Not Applicable.

Surface flow is:

Not Applicable.

Subsurface flow:

Not Applicable.

(c) Wetland Adjacency Determination with Non-TNW:

Not Applicable.

(d) Proximity (Relationship) to TNW:

Not Applicable.

(ii) Chemical Characteristics:**Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).**

Not Applicable.

(iii) Biological Characteristics. Wetland supports:

Not Applicable.

3. Characteristics of all wetlands adjacent to the tributary (if any):

All wetlands being considered in the cumulative analysis:
Not Applicable.

Summarize overall biological, chemical and physical functions being performed:
Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:
Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

3. Non-RPWs that flow directly or indirectly into TNWs.⁸
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:
Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:
Not Applicable.

7. Impoundments of jurisdictional waters.⁹
Not Applicable.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:¹⁰

Waters Name	Interstate\Foreign Travelers	Fish/Shellfish Commerce	Industrial Commerce	Interstate Isolated	Explain	Other Factors	Explain
Unnamed drainage	-	-	-	-	-	-	-

Identify water body and summarize rationale supporting determination:

Water Name	Adjacent To TNW Rationale	TNW Rationale
Unnamed drainage	-	-

Provide estimates for jurisdictional waters in the review area:

Water Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Unnamed drainage	Isolated (interstate or intrastate) waters, including isolated wetlands	-	971.24544
Total:		0	971.24544

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:
- Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR):
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):
- Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (ie., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:

Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction.

Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD

(listed items shall be included in case file and, where checked and requested, appropriately reference below):

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	-	-
--U.S. Geological Survey map(s).	-	-
--Photographs	-	-
----Aerial	-	-
--Other information	-	California Groudwater Bulletin Number 118, El Mirage Valley Grounwater Basin; El Mirage Dry Lake Off-Highway Vehicle Recreation Area (http://www.blm.gov/ca/st/en/fo/barstow/mirage.html);

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Description

This non-RPW water has been defined as an ephemeral wash with an approximate width of 14-feet and a linear footage of 752-feet within the general project area. The non-RPW is situated in the City of Phelan, and is approximately 14 miles south of El Mirage Dry Lake. Surface

flows in the area travel in a general northward direction to El Mirage Dry Lake which is the terminus for most drainages in the area. El Mirage Dry Lake is an intrastate dry lake. Currently, there are no known or published recreational uses of this non-RPW. Furthermore, the published recreational uses of El Mirage Dry lake are limited to a few non-water (no recreational navigation) related activities including hiking, rock hounding, wildlife watching, off-roading area, and ultra-light and other aircraft activity. El Mirage Dry Lake is NOT a TNW or an (a)(3) water. This non-RPW has no downstream connectivity to a TNW and has no nexus to interstate or foreign commerce. The non-RPW is NOT an (a)(3) water as defined by 33 CFR 324.3, and the non-RPW does not meet any of the i-iii criteria (no recreation or interstate commerce related to fisheries or industry) Based on the above information, the Corps concludes that this non-RPW is NOT a jurisdictional water of the United States, since the non-RPW has no commerce connection and is not an (a)(3) water by 33 CFR 328.3 and is isolated with no connection to a downstream TNW.

- ¹-Boxes checked below shall be supported by completing the appropriate sections in Section III below.
- ²-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
- ³-Supporting documentation is presented in Section III.F.
- ⁴-Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
- ⁵-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
- ⁶-A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
- ⁷-Ibid.
- ⁸-See Footnote #3.
- ⁹-To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
- ¹⁰-Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.