

# 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 (Ord.3040) and State CEQA Guidelines (Section 15063).

## PROJECT LABEL:

<b>APN:</b>	<b>0466-181-59, 60, 61, 62</b>	<b>USGS Quad:</b>	Wild Crossing
<b>APPLICANT:</b>	Sunlight Partners LLC. (LANDPRO Solar)	<b>Latitude:</b>	34.763042
<b>COMMUNITY:</b>	Helendale/ 1 <sup>st</sup> Supervisorial District	<b>Longitude:</b>	-117.32365
<b>LOCATION:</b>	Wild Road and Smithson Road, Southwest corner	<b>T, R, Section</b>	T8N, R4W, Section 20, SW ¼
<b>PROJECT NO:</b>	P201200174/CUP	<b>Planning Area:</b>	Desert Region
<b>STAFF:</b>	Chris Conner	<b>Zoning:</b>	RL-5
<b>REP(S):</b>	Mark Roberts, Sunlight Partners	<b>Overlays:</b>	Dam Inundation Biotic Resources
<b>PROPOSAL:</b>	Conditional Use Permit to establish a 7.5 MW photovoltaic solar facility on 80.6 acres.		

## PROJECT CONTACT INFORMATION:

**Lead agency:** County of San Bernardino  
Land Use Services - Planning  
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San Bernardino, CA 92415

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**Project Sponsor:** Sunlight Partners, Mark Roberts  
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## PROJECT SUMMARY:

The proposed project is Conditional Use Permit P201200174 for a 7.5 MW photovoltaic solar generating facility on four existing parcels (APN 0466-181-59, 60, 61, 62) at the southwest corner of Wild Road and Smithson Road in the unincorporated community of Helendale in San Bernardino County, just northeast of the Silver Lakes Country Club. The proposed project is anticipated to be operated for about 35 years.

Project facilities are proposed to include photovoltaic panels mounted on single axis trackers, supported by steel piers driven into the ground to an appropriate depth, as determined by soil conditions. Each block of trackers will have a concrete pad, supporting the 500 W inverters and mechanical components. The pad will be approximately 8 feet wide and 30 feet long. The height of the panels at horizontal is not anticipated to exceed 7 feet. The trackers will form rows running north and south. The site will be surrounded by an 8 foot high chain link fence with a video monitoring system. There is a perimeter access road and two interior north-south access roads and three interior east-west access roads. The perimeter and access roads are 20 feet in width.

Construction of the facility is proposed in four phases, with each phase taking approximately 10 weeks. Initial construction activities will include grading, trenching and driving the steel piers into the ground which will take approximately three weeks. Although, these activities may generate considerable noise, up to 100 dBA at 50 feet, and potential vibration, they will be of limited duration and pursuant to County Code Section 83.01.080 are exempt, as long as they are conducted between 7:00 AM and 7:00 PM, except Sundays and Federal holidays. Up to 80 workers are expected on the site during construction. During construction, there will be a staging area, which will

include construction offices, a first aid station, temporary buildings, worker parking, truck loading and unloading facilities, and an area for assembling the solar array equipment. Vehicle travel routes will be from National Trails Highway via Vista Road, to Helendale Road to Smithson road to the site, with the main access along the south side of the project from Smithson Road.

This will be an unmanned facility with personnel expect to be on site approximately three to four times per year to perform maintenance and monitoring duties including washing the solar panels, which is anticipated to consume approximately 10,000 gallons of water during each visit.

An existing single-family residence and accessory structures will remain on the project site, separated by a fence from the photovoltaic panels.

**ENVIRONMENTAL/EXISTING SITE CONDITIONS:**

The proposed project is within the Mojave Desert region, in unincorporated San Bernardino County, just northeast of the unincorporated community of Silver Lakes. The Helendale Community Services District Park and Equestrian facility is adjacent to the site on the west side. The site and surrounding properties, except the property to the south are zoned Rural Living-5- acre minimum lot size (RL-5). The property to the south is zoned Single Residential (RS). Electrical power generation facilities may be permitted in the RL-5 District, subject approval of a Conditional Use Permit.

AREA	EXISTING LAND USE	ZONING/OVERLAY DISTRICTS
Site	Single-family residence	Rural Living (RL-5)/Dam Inundation Overlay
North	Vacant	Rural Living (RL-5)
South	Vacant	Single Residential (RS)/Dam Inundation Overlay
East	Several single-family residences	Rural Living (RL-5)/Dam Inundation Overlay
West	Helendale Community Services District Park and Equestrian Facility	Rural Living (RL-5)/Dam Inundation Overlay

Smithson Road abuts the site on the south and east sides, which is partially paved on the south side of the project, but unpaved on the east side. Wild Road abuts the site on the north side and is partially paved.

The Mojave River bed and FEMA designated Floodway is approximately 1,000 feet to the southeast of the site. The site is designated FEMA designated Zones D and X, with the 100-year floodplain immediately adjacent to the site at the southeast corner. The site is within the Dam Inundation Area of the Mojave River Forks and Silverwood Lake Dams, which are located approximately 30 and 33 miles upstream along the Mojave River.

As indicated by the General Biological Resources Assessment performed by RCA Associates, evaluation of past aerial photos indicates that the site has been farmed for at least ten years, which has resulted in the removal of most native vegetation. Currently, the site supports a variety of plants typical of fallow agricultural field and disturbed grasslands. Dominant species include saltbush (*Atriplex canescens*), seepweed (*Sueda moquinii*), Russain Thistle (*Salsola tragus*), and brome grasses, (*Bromus* sp.). Elevations ranged from 2,390 to 2,410 feet (MSL) with a slight slope to the northeast. Soils consist of disturbed sandy loam with a few gravels and small rocks present. No sensitive wildlife species were observed during general biological surveys.

## **DESCRIPTION OF PROJECT**

The developer has applied for a Conditional Use Permit P201200174 to allow a 7.5 MW photovoltaic solar generating facility on four existing parcels (APN 0466-181-59, 60, 61, 62) at the southwest corner of Wild Road and Smithson Road in the unincorporated community of Helendale in San Bernardino County, just northeast of the Silver Lakes Country Club. The proposed project is anticipated to be operated for about 35 years. If the project is approved, the four lots will be required to be merged into one.

The proposed Solar Generating Facility will be a phased project with a total generating capacity of 7.5 megawatts alternating current (MW-AC) once all construction has been completed. Initial construction will be located in the southern portion of the Site encompassing APN 0466-181-62. Additional phases will be constructed in the central part of the Property encompassing APN 0466-181-60 & 61) and the final phase will be located in the northern portion of the Site (APN 0466-181-59). The Project Site is 80.6 gross acres in size and includes a single family residence and accessory structures, which will remain, but be fenced off from the solar generating facility (see Figures 1 – 5 for site location and for the proposed solar facility layout). The solar generating facility will operate year-round producing electric power during the daytime hours. Proposed construction will begin with site preparation and construction of Phase I following approval from all applicable agencies. Other phases will proceed as necessary and as per agency approval. No permanent on-site operations and maintenance facility will be constructed on the Property, and no portions of the Project Site will be paved.

The Project Site will employ photovoltaic (PV) modules that convert sunlight directly into electrical energy without the use of heat transfer fluid or cooling water. Electrical energy produced by the facility will be delivered to the existing regional transmission system in the area. The connection point is located along Smithson Road. The proponent has initiated the interconnection process and the project has a 7.5 MW queue position with the California Independent System Operator. The Project will utilize a series of arrays of PV modules to convert solar energy directly to electrical power for export to the electrical grid. The Project Site will be operated over a period of about 35 years.

As noted above, the Project Site will be developed in a phased approach, and project construction for each of the proposed Phases will consist of (1) site preparation; (2) PV system installation and testing, and (3) site cleanup and restoration. The specific activities associated with the construction of each Phase are summarized below:

**Site Preparation:** The staging areas will be initially cleared and graded and the existing access roads will be improved, as necessary, to appropriate construction standards to allow for the movement of heavy construction vehicles. The staging area will include construction offices, a first aid station, temporary buildings, worker parking, truck loading and unloading facilities, and an area for assembling the solar array equipment. Road corridors on-site will be surveyed, cleared, and graded in order to move equipment, materials, and workers on the Site as needed. Flagging will be utilized to denote the location of buried electrical lines, PV array locations, and the location of various facilities. The Project Site will be fenced with a security fence (i.e., chain-link) and security gates will be installed with a controlled main access gate located at the entrances. Initial erosion and sedimentation controls will be installed as per Best Management Practices (BMPS), and water truck reloading stations will be established for dust control.

**PV Installation and Testing:** Installation of the PV system will require earthwork, grading, and erosion control. Plant substations will be constructed and the PV modules, supports, and associated electrical equipment will be installed. The mounting and support structures will be constructed of steel/concrete and the design will be finalized pending final analysis of the soil conditions. Concrete used for the footings, foundations, pads, and substation equipment will be produced at an off-site location by a local provider and transported to the Site via truck. The final specifications for the concrete will be determined during detailed design engineering; however, production will meet applicable building codes. Waste generated during the construction phase will be non-hazardous and will include cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spool. No hazardous materials will be generated during the construction phase; although, construction equipment will contain various hazardous substances such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum based products. No permanent buildings will be constructed on the Property.

**Site Cleanup and Restoration:** Once construction has been completed, site cleanup will occur including the removal of construction wastes and materials from the Site, which will be placed at a local waste collection center. Re-seeding with native grasses and/or shrubs may be implemented, as necessary, to stabilize soils and minimize sediment runoff during major storm events. The proponent will implement BMPs during the construction phases. The proponent will utilize BMPs for erosion control, and the Project will comply with all applicable post-construction water quality standards. Construction for each phase will take approximately 10 weeks and information on manpower requirements is provided in Table 1. The first two weeks will include moving heavy machinery on-site, grading the ground and compaction of the service roads in preparation for construction. Installation of the steel beams into the ground will take place during the third week during which the beams will be vibrated into the ground.

The remaining steel components will be transported to the Site at a rate of approximately 10 truckloads a day where they will be mounted onto the beams. During this process, up to 80 workers will be on-site at any one time. Once completed, the PV panels will be transported to the Site and installed. During week seven, the electrical lines will be buried in trenches and the concrete will be laid for the inverters during this time. During the 10<sup>th</sup> week, the panels and inverters will be completely installed and the solar plant connected to the electrical grid. Once construction is completed, the solar plant will go online with power supplied to the electrical grid.

Maintenance will be performed on a regular basis with approximately two people visiting the Project Site four to five times per year. During the maintenance visits, the grasses and shrubs will be mowed and the PV panels and electrical equipment will also be maintained. This Project Site will be an unmanned facility. For additional information see Figures 1 – 3.

**TABLE 1. PROJECTED MANPOWER, DELIVERY TRUCKS, AND DUMPSTER USAGE BY WEEK.  
 (Per Phase)**

<b>Week</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>Average</b>
Manpower	4	8	16	24	32	32	32	32	18	12	0	0	17.5
Delivery Trucks	4	4	8	8	8	8	4	2	1	1	1	0	4.08
10-Yard Dumpster	0	0	1	1	1	2	3	3	1	1	0	0	1.08

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

- Federal: U.S. Army Corps of Engineers, U.S. Fish and Wildlife
- State of California: Fish and Game, Caltrans, Regional Water Quality Control Board (Lahontan Region), Mojave Desert Air Quality Management District
- County of San Bernardino: Land Use Services – Code Enforcement, Building and Safety; Public Health – Environmental Health Services; Public Works – Land Development, Solid Waste, Traffic; and Drainage



Figure 2





**EVALUATION FORMAT**

The County of San Bernardino prepared this initial study in compliance with the California Environmental Quality Act (CEQA) Guidelines. The format of the study is as follows. Staff evaluated the project based upon its effect on 18 major categories of environmental factors. Staff reviewed each factor 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. Staff categorizes the effect of the project into one of the following four categories of possible determinations:

Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
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Staff provides substantiation to justify each determination and one of the four following conclusions as a summary of the analysis for each of the major environmental factors.

1. Significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are (Listing the impacts requiring analysis within the EIR).
2. 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 mitigation measures)
3. No significant adverse impacts are identified or anticipated and no mitigation measures are required. (Optional mitigation may be added by stating: “As a precautionary measure to further reduce any potential for impacts, the following requirement shall apply”):
4. No impacts are identified or anticipated and no mitigation measures are required.

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: MITIGATED NEGATIVE DECLARATION REPORT**

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 3 for additional information.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry	<input type="checkbox"/>	Air Quality
<input type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Geology/Soils
<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards and Hazardous Materials	<input type="checkbox"/>	Hydrology/Water Quality
<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources	<input 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:**

On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed project could not have a significant effect on the environment, and a <b>NEGATIVE DECLARATION</b> will be prepared.
<input checked="" type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will 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 <b>MITIGATED NEGATIVE DECLARATION</b> has been prepared with mitigation measures as discussed in this report.
<input type="checkbox"/>	I find that the proposed project <b>MAY</b> have a significant effect on the environment, and an <b>ENVIRONMENTAL IMPACT REPORT</b> is required.
<input type="checkbox"/>	I find that the proposed project <b>MAY</b> 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 <b>ENVIRONMENTAL IMPACT REPORT</b> is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or <b>NEGATIVE DECLARATION</b> pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or <b>NEGATIVE DECLARATION</b> , including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature (prepared by: Chris Conner, Senior Planner)

Date

Signature: David Prusch, Supervising Planner

Date

6/4/13

6/4/13

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>I. AESTHETICS:</b> Would 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 would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

- I a) **Less Than Significant Impact:** The proposed project is located a little less than a mile northwesterly of Historic Route 66 (National Trails Highway), which is designated a scenic route in the General Plan. In this portion, the scenic qualities are primarily the Mojave River, which is approximately 1/3 mile wide in this area and still in a natural state, and the hills to the south and east of the highway. The project site is beyond the Mojave River from the highway and would be partially visible since the highway is a higher elevation. The Property has been significantly disturbed by past agricultural activities over the last several decades and very little native vegetation is present throughout the site. The proposed project would have a low profile, with maximum heights of the solar panels less than 10 feet. Although the project site would be visible, it is relatively distant from the highway and would not significantly interfere with views of the distant mountains on the horizon to the west so the impacts are less than significant.
- I b) **Less Than Significant Impact:** The proposed project is located about one mile northwest of the Historic Route 66 (National Trails Highway) but would not substantially damage any scenic resources, including, but not limited to trees, rock outcroppings, or historic buildings visible from the highway, as the site has been farmed for a number of years and has no historic buildings, significant trees, or very little native vegetation present throughout the site, so the impacts are less than significant.
- I c) **Less Than Significant Impact:** The proposed project will have a low profile and will be fenced for security purposes. The current visual character of the site and vicinity includes several single-family dwellings on large lots with numerous accessory structures and outdoor storage, an adjacent equine facility, fallow agricultural fields, and nearby undisturbed desert habitat. The project is not expected to substantially degrade the existing visual character of the site or surrounding area.
- I d) **No Impact:** The solar panels will be designed such that they are non-reflective and appear black to the eye; therefore, the amount of glare coming from the Site is expected to be negligible. Motion-sensors will be utilized and no night-time lighting will be installed. In addition, the project must comply with San Bernardino County Ordinance No. 3900 that regulates glare, outdoor lighting, and night sky protection in the desert region. Therefore, the proposed facility would not have a significant impact on daytime or nighttime views in the area. Therefore, no substantial impacts to light or glare would occur, nor will night-time views be impacted.

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>II. AGRICULTURE AND FOREST RESOURCES:</b> 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 the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<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  if project is located in the Important Farmlands Overlay)

The proposed project would not be located on Important Farmland, as mapped by the State of California, and is not located in an Agricultural Preserve area (California Department of Conservation, 2008). The site was previously utilized for farming for several decades and alfalfa was the main crop; although, the site has been fallow for several years.

II a-e) **No Impact:** The proposed project will not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California Department of Conservation 2008). The Site is zoned RL-5 for rural living and includes renewable energy production facilities as a use subject to a Conditional Use Permit. The proposed project would not conflict with existing zoning codes or conflict with the Williamson Act. The site does not contain any prime soils or statewide soils, nor is the site under an agricultural contract. The proposed project is located in the high desert of Southern California which is characterized by high temperatures during the summer and low temperatures during the winter, with low humidity and low rainfall. No forest resources are present on the site nor is the property located in an area noted for forest resources. The proposed project will have no impact on agricultural or forest resources.

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>III. AIR QUALITY:</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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"/>

**SUBSTANTIATION** (Discuss conformity with the Mojave Desert Air Quality Management Plan (MDAQMP), if applicable):

The proposed Project is expected to have a minimal impact on the air quality of the area and will produce relatively few emissions during construction (three month period for each phase) and negligible emissions during operation. In addition, the development of renewable energy sources is expected to produce cumulative and regional environmental benefits therefore an Air Quality Analysis is not required.

III a) **Less Than Significant Impact:** There will be no expected conflict or obstruction of any air quality plans. Most of the polluting emissions will be produced during the construction period where earthmovers, delivery trucks and personal vehicles will be used during the construction phase. These emissions will be in the form of exhaust and dust. The amount of exhaust associated with this Project will be negligible compared to the yearly exhaust levels of San Bernardino County. The Project is located within the Mojave Desert Air Quality Management District (District) which is non-attainment for ozone and PM<sub>10</sub>. The District currently has adopted federal attainment plans (1995 for PM<sub>10</sub> and 2004 for ozone) for these two pollutants. The project is expected to generate minor particulate and ozone precursors during the 10 week construction period, however, these will be less than or roughly equal to pollutants generated by other land uses for this property such as farming (farrowing, plowing, etc.). Mitigation will include use of water trucks to reduce particulate emissions during construction. A dust control Plan will be developed and submitted to the County and MDAQMD for review and approval prior to issuance of a grading permit and/or land disturbance.

III b) **Less Than Significant Impact:** The total vehicle miles traveled directly related to the proposed project is not expected to exceed approximately 150,000 miles based on a maximum of about 60 miles per day for worker vehicles and 200 miles for delivery vehicles (calculated 138,400 miles, but will use 150,000 as worst case). This relates to less than a 0.0007 percent increase per phase in vehicle miles traveled for the Project based on an estimated 22 billion miles traveled each year in San Bernardino County (California Department of Transportation 2008). For the three phases, maximum vehicle miles traveled will be 750,000 miles (using 150,000 for each 1.5 MW project); however these will not likely occur during a one year period (more likely at least two years). The amount of vehicle emissions of criteria pollutants (NO<sub>x</sub>, SO<sub>2</sub>, CO, etc.) associated with the Project is expected to be non-significant (0.0035 percent) compared to the amount of exhaust emitted by the County on a yearly basis. Construction emissions of particulates are also expected to be negligible (comparable to plowing the Site) and will utilize a water truck at least twice daily for mitigation to control particulate emissions. Operational emissions will

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involve only 2-3 trips to the Site annually. This will involve negligible vehicle emissions and negligible dust emissions from driving on the gravel roads.

- III c) **No Impact:** The Project is not expected to produce cumulatively significant emissions for ozone or PM<sub>10</sub>. During construction activities, dust will be produced by general activity on-site, especially earth-moving activities. The Mojave Desert Air Quality Management District Rule 403.2 requires that mitigations be taken to reduce the amount of dust produced during construction periods. These mitigations include periodic watering via water truck to minimize any visible fugitive dust emissions, taking actions to prevent the tracking of bulk material onto public roads, reducing non-essential earth-moving activities when wind exceeds gusts of 25 miles per hour or an hourly average wind speed of 15 miles per hour. Any project-related spills or tracking of bulk material on public surfaces will be cleaned up within 24 hours as required by the Mojave Desert Air Quality Management District (1996). After construction has been completed, the amount of air pollutants are expected to be reduced considerably since photovoltaic energy production systems do not generate emissions that would cause reduction of air quality or produce objectionable odors. Air emissions will also occur during occasional maintenance; however, these emissions will be at non-significant levels (generally twice per year). However, it is recommended that maintenance vehicles be kept in good condition and not be allowed to idle for extended periods of time.
- III d) **Less than Significant Impact.** The MDAQMD defines sensitive receptors as residences, schools, daycare centers, playgrounds, and medical facilities. There are scattered residences in the area, but no other sensitive receptors in close proximity to the project area. The nearest residences to the proposed project are approximately 200 – 350 feet east. In addition, electricity generation via the use of photovoltaic systems does not generate chemical emissions that would negatively contribute to air quality. Furthermore, the County's general conditions and standards as well as project-specific design and construction features incorporated into the proposed project such as dust suppression techniques per MDAQMD's Rule 403 would reduce any potential impacts from the project. No significant adverse impacts are identified or anticipated and no additional mitigation measures are required.
- III e) **Less than Significant Impact.** Electricity generation via the use of photovoltaic systems does not generate chemical emissions that would negatively contribute to air quality or produce objectionable odors. Potential odor generation associated with the proposed project would be limited to construction sources such as diesel exhaust and dust. No significant odor impacts related to project implementation are anticipated due to the nature and short-term extent of potential sources, as well as the intervening distance to sensitive receptors. Therefore, the operation of the project would have a less than significant impact associated with the creation of objectionable odors affecting a substantial number of people.

**Although impacts to Air Quality are considered to be less-than-significant the following mitigation measures are required as conditions of project approval.**

**AQ – Construction Mitigation. Developer shall submit written verification that all construction contracts and sub-contracts for the project contain provisions that require adherence to the following standards to reduce impacts to air quality: During construction, each contractor and subcontractor shall implement the following, whenever feasible:**

- **MDAQMD-approved Dust Control Plan (DCP) submitted with the Grading Plans. The DCP shall include these elements to reduce dust production:**
- **Exposed soil shall be kept continually moist through a minimum of twice daily waterings to reduce fugitive dust during all grading and construction activities**
- **Street sweeping shall be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles.**
- **Site access driveways and adjacent streets shall be washed daily, if there are visible signs of any dirt track-out at the conclusion of any workday.**
- **Tires of vehicles will be washed before the vehicle leaves the project site and enters a paved road.**
- **All trucks hauling dirt away from the site shall be covered**
- **During high wind conditions (i.e., wind speeds exceeding 25 mph), areas with disturbed soil shall be watered hourly and activities on unpaved surfaces shall be terminated until wind speeds no longer exceed 25 mph.**
- **Storage piles that are to be left in place for more than three working days shall either be:**

- **Sprayed with a non-toxic soil binder, or**
- **Covered with plastic, or**
- **Re-vegetated until placed in use.**
- **Provide documentation prior to beginning construction demonstrating that the project proponents will comply with all MDAQMD regulations.**
- **Suspend use of all construction equipment operations during second stage smog alerts. For daily forecast, call (800) 367 4710 (San Bernardino and Riverside counties).**
- **Trucks/equipment shall not be left idling on site for periods in excess of ten minutes.**
- **Provide temporary traffic control during all phases of construction.**
- **Provide on site food service for construction workers.**
- **Use reformulated low-sulfur diesel fuel in equipment and use low-NOx engines, alternative fuels and electrification. Apply 4-6 degree injection timing retard to diesel IC engines. Use catalytic converters on gasoline-powered equipment.**
- **Minimize concurrent use of equipment through equipment phasing.**
- **Substitute electric and gasoline-powered equipment for diesel-powered equipment.**
- **Onsite electrical power hook-ups shall be provided for electric construction tools to eliminate the need for diesel-powered electronic generators.**
- **Maintain construction equipment engines in good order to reduce emissions. The developer shall have each contractor certify that all construction equipment is properly serviced and maintained in good operating condition.**
- **Install storm water control systems to prevent mud deposition onto paved areas.**
- **Contractors shall use low sulfur fuel for stationary construction equipment as required by AQMD Rules 431.1 and 431.2 to reduce the release of undesirable emissions.**

*(MM AQ-1, Prior to Land Disturbance/Grading)*

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>IV. BIOLOGICAL RESOURCES:</b> Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and 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, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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"/>

**SUBSTANTIATION** (Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database ):

IV a&b) **Less Than Significant With Mitigation:** The project site is located within areas identified by the San Bernardino County Biotic Resources Overlays as potentially having medium density desert tortoise and burrowing owl habitat and is approximately 300 feet southeasterly from the area designated for Mojave ground squirrel.

A General Biological Resources Assessment was prepared for the site, and a habitat assessment for the Mohave ground squirrel was performed (RCA Associates, 2012b). The Site was utilized for farming activities for several years and currently supports a fallow agricultural field. The vegetation is somewhat limited with saltbush (*Atriplex canescens*), wheelscale (*A. elegans*), bush seepweed (*Sueda moquinii*), yellow-green matchweed (*Gutierrezia sarothrae*), and grasses (*Bromus* sp.) the most common species. Common annuals consist primarily of erodium (*Erodium cicutarium*), fiddleneck (*Amsinckia tessellata*), Russian thistle (*Salsola tragus*), and alfalfa (*Medigo sativa*). Wildlife which utilize the Site either as permanent resident species or transients include common species such as ravens (*Corvus corax*), song sparrows (*Amphispiza melodia*), and mourning doves (*Zenaida macroura*). Reptile diversity is limited in the region; although, side-blotched lizards (*Uta stansburiana*) and western whiptail lizards (*Cnemidophorus tigris*) are common in the region and likely inhabit the Site. No mammals were observed during previous field investigations, although, desert cottontail rabbits (*Sylvilagus auduboni*), jackrabbits (*Lepus californica*), and Antelope ground squirrels (*Ammospermophilus leucurus*) could potentially occur on the Site. Coyotes (*Canis latrans*) occasionally traverse the Site as indicated by tracks and scats. No riparian habitat or other sensitive natural habitat was identified on the project site.

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Focused surveys were also performed for the desert tortoise and burrowing owl by RCA Associates in 2012 (RCA Associates 2012b,d). No tortoises or burrowing owls were identified on the site during the 2012 surveys, nor does the site support suitable habitat for the Mohave ground squirrel due to the existing conditions (RCA Associates 2012a,c). Burrowing owls could potentially utilize the site in the future if suitable burrows become available; however, a pre-construction surveys will be conducted 30-days prior to the start of construction to determine if the species is present on the site. A Mojave Monkey Flower Assessment was also conducted (Phoenix Biological Consulting 2012), which concluded that the site is not suitable Mojave Monkey Flower habitat based on the site visit and literature search.

Therefore, the proposed project will not have any significant impact on any species that has been identified as a candidate, sensitive, or special status species and a less than significant impact on burrowing owl with a pre-construction survey and mitigation if any burrowing owls are observed.

- IV c & d) **No Impact:** As discussed in IV a & b above and as identified in the General Biological Assessment and Focused Surveys (RCA Associates, 2012a-d) for this property no sensitive species were observed and the site does not support native communities. No riparian habitat or federally protected wetlands (including marshes, vernal pools, coastal, etc.) are present on the site; consequently, the proposed project will not impact these types of sensitive habitats or any regulation pertaining to these habitats. No distinct wildlife corridors were identified on the site or in the immediate surrounding area; therefore, the proposed project will not interfere with the movement of any native resident or migratory fish or wildlife or with established native resident or migratory wildlife corridors, nor will the project impede the use of any wildlife nursery sites. The site is quite flat and slopes from the southeast corner of the site toward the northeast at approximately 0.3% toward the Mojave River. No impact is anticipated.
- IV e) **Less Than Significant Impact With Mitigation:** As discussed in IVa & b above, the project site is located within areas identified by the San Bernardino County Biotic Resources Overlays as potentially having medium density desert tortoise and burrowing owl habitat and is approximately 300 feet southeasterly from the area designated for Mojave ground squirrel. Focused surveys did not identify any suitable habitat habitats for sensitive species. Burrowing owls could potentially utilize the site in the future if suitable burrows become available; however, a pre-construction surveys will be conducted 30-days prior to the start of construction to determine if the species is present on the site.
- IV f) **No Impact:** The project does not conflict with conflict with any provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impact is anticipated.

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

**Pre-construction Survey.** As a standard operating procedure for projects located in native habitat, a qualified biologist shall conduct a 30-day preconstruction survey to determine if DT, MGS, and/or BUOW have migrated onto the site. If the biologist encounters any of these species during the pre-construction survey, then the project proponent must contact the appropriate regulatory authority (USFWS and/or CDFG) to obtain the required take authorization for the project. *(MM BIO-1, Prior to Land Disturbance/Grading)*

**Nesting Birds.** The State of California prohibits the “take” of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal shall be conducted outside of the State identified nesting season (February 15 through September 1). Alternatively, a qualified biologist shall evaluate the site prior to initiation of ground disturbance to determine the presence or absence of nesting birds. Avoidance of active bird nests **MUST** occur during the nesting season. If an active nest is located in the project construction area it will be flagged and a 300-foot avoidance buffer placed around it. No activity will occur within the 300-foot buffer until the young have fledged the nest. *(MM BIO-2, Prior to Land Disturbance/Grading)*

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

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

V a-d) **No Impacts:** CRM Tech, Inc., conducted an archaeological records search at the San Bernardino Archaeological Information Center in Redlands, California, and the California State Historic Property Data File was also reviewed (CRM Tech, Inc. 2012). The records search indicates that there are no cultural resources on the Site or on adjacent properties. However, four historic sites have been documented within about a 0.5 miles radius and two prehistoric sites have been recorded within 1.0 mile radius. Since no grading is proposed and no historical resources were encountered during the course of their study, CRM Tech recommended a determination of No Impact. However, if buried cultural materials are encountered during future construction activities, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

**No impacts have been identified or anticipated and no mitigation measures are required.**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>VI. GEOLOGY AND SOILS:</b> Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<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 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<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):

VI a-i) **No Impact:** The Project is located in an area for which no Alquist Priolo Special Studies Maps have been prepared (CRA 2013). Some faults or possible faults are shown for the Kramer Hills Quadrangle, more than 10 miles to the northwest, and for the Turtle Valley Quadrangle, about the same distance to the southeast. (CRA 2013). These maps show possible minor faults, but there has been no mapping at the Project Site, likely due to the lack of known faults.

VI a-ii-iii) **Less Than Significant Impact:** Since the Project Site is located in Southern California; the Site is at moderate risk of an earthquake event which would result in ground shaking. Substantial seismic ground shaking is not expected as indicated by the Geotechnical Report (Merrell Johnson 2012a). In the event that a strong earthquake occurs, there is a low to moderate risk of liquefaction; however, any liquefaction is expected to be localized and have minimal impact on the solar facility (Merrell Johnson 2012a).

VI a-iv) **No Impact:** The Site has flat topography with a very slight slope (less than one percent) and there is no possibility of landslides. Since the Site is flat, erosion is not expected to be significant. If any erosion channels develop during construction, off-site flows of sediment should be blocked by use of silt fences, straw bales or similar erosion control measures.

VI b) **Less Than Significant Impact:** Since the Site is flat, erosion is not expected to be significant. If any erosion channels develop during construction, off-site flows of sediment should be blocked by use of silt fences, straw bales or similar erosion control measures. The surface soil will be graded and transported around the Site resulting in the potential loss of some topsoil. However, the topography of the Site is such that such losses will be minimal. Where additional planting is anticipated, soils will be stockpiled during construction and utilized in these areas.

Surface soils may be graded down to three feet in depth at certain locations in order to provide support for footings or slabs. In general, pilings or piers will be used with the solar arrays to ensure stability. Piers must be sunk to eight feet in depth and pilings to 12 feet in depth (Merrell Johnson 2012a) according to the geotechnical report on the Site. Soils are sandy silts, sand and gravelly sand and are generally deep and well drained (EDR 2012).

VI c) **Less Than Significant Impact:** The site does not have unstable soils according to the geotechnical report (Merrell Johnson 2012a). The site is nearly flat and has sandy loam soils. There is a low to moderate possibility of liquefaction in the event of an earthquake.

VI d) **Less Than Significant Impact:** The soil on the site has been significantly disturbed due to past farming activities; however, the soils are sandy loams which are expected to have low potential for being expansive (Merrell Johnson Companies 2012a).

VI e) **No Impact:** No septic systems, sewers or other wastewater systems will be used for the Project.

**No significant adverse impacts are anticipated for geology or soils and no mitigation measures are required.**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>VII. GREENHOUSE GAS EMISSIONS:</b> Would 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 an applicable plan, policy or regulation 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:**

- VII a) **Less Than Significant Impact:** The Project, once fully built and operational, will provide a “clean” source of energy that will not emit greenhouse gases (GHG). The only major source of greenhouse gas emissions that will be associated with the project are construction and maintenance vehicles. During construction, several heavy vehicles will be used which emit a variety of GHGs, including carbon dioxide. After construction, maintenance vehicles will be the primary source of GHGs, however, these will only be used about twice annually on each phase of the project.
- VII b) **Less Than Significant Impact:** The State of California has adopted standards aimed at reducing the levels of greenhouse gas emissions under an executive order from the Governor in 2005, the subsequent passage of an Assembly Bill (AB32) and a statewide emissions inventory updated in 2010. GHGs must be reduced to 1990 levels by the year 2020 under these regulations. The project will release only minor amounts of GHGs from vehicles during the relatively short construction period (10 weeks). These can be further reduced by the Mitigation Measures suggested below.

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>VIII. HAZARDS AND HAZARDOUS MATERIALS:</b> Would 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, would 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, would 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, would 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:**

VIII a) **Less Than Significant Impact:** Some hazardous materials may be present during construction including fuel, lubricants and/or hydraulics used by construction machinery. It is recommended the machinery be kept in good condition to prevent hazardous material leaks and that all construction workers have proper safety training for working with or around heavy machinery. All other equipment containing potentially hazardous material should be kept in good condition and the operators have proper safety instruction/training and follow all manufacturer recommendations before use. All other hazardous material being brought and/or installed on-site should be treated with caution to ensure that any workers or the environment are not exposed. During construction, a first aid station should be maintained in an accessible area of the Site.

VIII b) **Less Than Significant Impact:** The Solar Project will contain little operational hazardous material or waste. The potentially hazardous materials are limited to glycol-based coolant, lubricants for the tracking system, and lubricants for other moving parts. These materials are mildly toxic and will not present a major risk to the handlers or the environment.

A Phase I Site Assessment was performed for the Project Site and it was determined that no signs of contamination or dumping of any hazardous materials has occurred on the Site (Westech 2012). However, an adjacent parcel (Silverlakes Farms) has had several underground tank incidents according to the records search conducted as part of the Site assessment. These sites have been closed and/or cleaned up or are currently being recycled with off-site disposal (EDR 2012).

- VIII c) **No Impact:** The Project is not within one quarter mile of any existing or proposed school. The nearest school is 1.4 miles south of the project at Riverview and Vista Roads. The project will not use any acutely hazardous materials.
- VIII d) **No Impact:** The Site is not listed on any government list of hazardous sites (EDR 2012).
- VIII e-f) **No Impact:** The Site will not interfere with air traffic or airports. The solar panels are dark and non-reflective and will not create any daytime glare. All lights used on the Site at night will be downward directed. The Project Site is not within two miles of any airport or airstrip. The nearest airport is Southern California Logistics Airport, approximately 10 miles south of the project. The project is not expected to have any impact on air traffic.
- VIII g) **No Impact:** The Project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- VIII h) **Less Than Significant Impact:** The proposed project will not substantially increase the risk of wildfire in the Site. Furthermore, it may reduce the wildfire risk by removing some of the existing vegetation and by the periodic trimming of any plant growth on-site. These maintenance activities will reduce the amount of combustible fuel. Compaction of the soil will also reduce the amount of plant growth, which will further decrease the risk of wildfire on-site. The only risk of on-site wildfire ignition would be from an electrical malfunction. However, if the electrical equipment is installed properly and follows all state and county safety codes, the risk of on-site ignition is minimal

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>IX. HYDROLOGY AND WATER QUALITY:</b> Would 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 would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<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 which would result in substantial erosion or siltation on- or off-site?	<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 would result in flooding on- or off-site?	<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 stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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:**

The levels of pollutants in stormwater runoff from the Site are not expected to be significant after construction has been completed, assuming all equipment is kept in good condition. Several BMPs are possible for the Site if any of the pollutants become of concern. There are three types of BMPs listed by the San Bernardino County Stormwater Program: 1) Site design BMPs incorporate site features to control the runoff rate, 2) Source control BMPs reduce potential for stormwater runoff and pollutants from coming into contact with each other, and 3) Treatment control, BMPs are systems that treat the adverse impacts of stormwater and runoff pollution.

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Since most of the surface area on the Project Site will be native soils and plants, there are a few site design BMPs possible. The small amount impervious area that is proposed on site (for footings and pilings) will be segmented and water will immediately drain into nearby pervious soils (Merrell Johnson 2012b).

There are more possible source control BMPs (both structural and non-structural) recommended for the Site. Non-structural BMPs include providing a “Spill Contingency Plan” in accordance with Section 6.59 of the California Health and Safety Code, employee BMP training, and annual inspections of any drainage facilities installed on-site. Structural source control BMPs include having a secondary containment structure for any liquid chemical such as rims on the concrete pads for the inverters (see section in this document on hazardous materials) and the potential use of alternate, less polluting materials or structures. All pollutants of concern will be addressed by site design or control BMPs. Potential treatment control BMPs for the Site may include retention of native vegetation along the edges of the Site, infiltration basins and filtration systems. However, it is unlikely that any site design or treatment control BMPs will be required for the Project Site given that source control BMPs can be used where needed.

- IX a) **Less Than Significant Impact:** A Water Quality Management Plan (WQMP) will be required to be prepared prior to issuance of grading permits or any ground disturbing activity. Provision of a WQMP and adherence with the County Public Works Best Management Practices (BMPs) is a standard condition of approval. The Site is roughly 0.2 miles from the Mojave River, however, the site is flat, with only about 0.3 % slope and no flow patterns or tributaries toward the river from the Site were observed. Nutrients and sediments are potential pollutants which may flow from the Site during major storm events. However, after construction is completed, these pollutant concentrations are not expected to be significantly higher (for each phase) than historical levels. In a large storm event, some debris from regular grass and shrub trimming may also flow from the Site, although most of this debris will be trapped on-site. Metals, organic compounds, and oil and grease will be associated with maintenance and construction vehicles; however, any potential issues will produce either temporary or non-significant levels of pollutants, assuming the vehicles are kept in good condition.
- IX b) **Less Than Significant Impact:** The Project will use local water supplies during construction and periodic maintenance of the site. Minimal grading of the site is anticipated since the site was previously farmed and is already flat. Water usage will be significantly less than used previously for any farming activities. Run-off from the solar panels will fall to the ground and most of the ground within the proposed project area will remain permeable (impervious surface will remain below five percent), so water percolation and groundwater recharge will remain unchanged by the implementation of the project.
- IX c-d) **Less Than Significant Impact:** The footprint of the solar arrays will be small and will not significantly change the drainage patterns since the Site will remain almost completely pervious. For most of the Site, the drainage pattern for a 100-year storm is 51 cubic feet per second sheet flow. This flow would cross the Site at a maximum depth of three inches, which will pass below the solar arrays and will be minimally impacted by the Project (Merrell Johnson 2012b) as described in the Hydrology Study of the Site. These flows will not result in alteration of drainage patterns, nor significant erosion, nor offsite flooding, since the Site is relatively flat, has drainage patterns reflecting sheet flow and little or no established channels.
- IX e) **No Impact:** There are no planned stormwater channels. Since the Project will not affect impervious surface (less than five percent change), the existing stormwater runoff channels along Smithson Road and Wild Road are not expected to be affected.
- IX f) **Less Than Significant Impact:** There are no water resources on the Site, and no blueline streams or other drainage channels are present on the Site. The Mojave River is located about 0.2 miles to the southeast; however, the project is not expected to impact the water quality of this channel.
- IX g-h) **Less Than Significant Impact:** The southeast corner of the site is adjacent to the 100-year floodplain of the Mojave River. Approximately 50 % of the southeastern portion of the project site is located within Flood Zone X according to FEMA Panel Number 4500H, dated 8/28/2008, with the remainder of the site located within Flood Zone D. No structures would be present to redirect or impede flood-flows, which will pass below the Solar Arrays.

- IX i) **Less Than Significant Impact.** Although the project site is located within the Dam Inundation Area related to potential failure of the Mojave River Forks and Silverwood Lake Dams, which are located approximately 30 and 33 miles upstream along the Mojave River, the unmanned facility will not expose people or structures to a significant risk of loss, injury, or death. The proposed project will not impact any evacuation routes. The County General Plan prohibits only critical, essential, and high-risk land uses within the inundation overlay.
- IX j) **No Impact.** The project site will not be impacted by inundation by seiche, tsunami, or mudflow, because the project is not adjacent to any body of water that has the potential of seiche or tsunami nor is the project site in the path of any potential mudflow

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>X. LAND USE AND PLANNING:</b> Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 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:**

- X a) **No Impact:** The project site is located just northeast of the unincorporated community of Silver Lakes and adjacent on the project's west side to the Helendale Community Services District Park and Equestrian facility. There are a few scattered residences on east side of the project on minimum 5-acre parcels. The project is surrounded on the north, east, and south by roads and will not physically divide an established community.
- X b) **Less Than Significant Impact:** The Site is currently listed in the San Bernardino County General Plan Land Use Element as Rural Living (RL-5) Land Use Zoning District. This category is oriented mainly to single-family residential use; however, this zoning does permit use for energy production facilities such as the proposed solar project, subject to approval of a Conditional Use Permit. The proposed project site is mapped within a Biotic Resources (BR) overlay, with the potential for desert tortoise, western burrowing owl, and Mohave ground squirrel in the area approximately 300 feet northwesterly of the project site. As required by the BR overlay, the proponent submitted reports with the project application that identified all biotic resources located on and adjacent to the site. The reports concluded that no sensitive species or habitat existed on the site, but did identify a mitigation measure requiring a pre-construction survey for burrowing owl, prior to commencement of construction.
- X c) **No Impact:** The project does not conflict with any provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impact is anticipated.

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XI. MINERAL RESOURCES:</b> Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<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):

XI a-b) **No Impact:** There are no known mineral resources on the Site and there have been no mining activities on the Property. Therefore, the proposed solar project will not result in the loss of the availability of a known mineral resource that would be of value to the region and residents of the state, nor will the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Gravel may be needed on the site for interior road surfacing; however, the amount of gravel that will be utilized is expected to be minimal and will be obtained off-site from an existing sand and gravel mine. Soil will be stockpiled for purposes of planting native vegetation once construction is completed.

**No impacts have been identified or anticipated and no mitigation measures are required.**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XII. NOISE:</b> Would 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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, would 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, would 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 ):

XII a –d) **Less Than Significant Impact:** During the construction period for each of the Phases, the level of noise will increase in the area due to heavy machinery and other construction related activities, especially during the early stages of construction, including grading, trenching and driving the steel piers into the ground which will take approximately three weeks. Although, these activities may generate considerable noise, up to 100 dBA at 50 feet, and potential vibration, they will be of limited duration and pursuant to County Code Section 83.01.080 are exempt, as long as they are conducted between 7:00 AM and 7:00 PM, except Sundays and Federal holidays.

After construction has been completed, occasional increases in noise levels may occur during site maintenance. However, the noise levels during construction and maintenance are expected to be less than significant since temporary construction and maintenance noise is considered exempt pursuant to County Code Section 83.01.080.

XII e-f) **No Impact:** The Project is not located within two miles of an airport or airstrip. The nearest airport is Southern California Logistics Airport approximately ten miles south of the project. The project will not expose people residing or working in the project area to excessive noise levels related to airport traffic. .

**No Significant noise impacts have been identified and no mitigation measures are necessary.**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XIII. POPULATION AND HOUSING:</b> Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through 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**

XIII a-c) **No Impact:** The project is located in a sparsely populated area of San Bernardino County. A maximum of about 80 workers will be on the site at any one time during the construction period. The total construction period for each phase will take approximately ten weeks, but most workers would be on site for only a few weeks of that period. There are no existing structures (i.e., houses, barns, etc.) within the proposed construction area and no structures (i.e., buildings, sheds, etc.) will be constructed on the site as part of the proposed solar project. There is a house within the southwest corner of the property, however it is outside of the proposed construction area. The project will be un-manned; therefore, it will not induce any population growth in the area nor will the project cause the displacement of any existing houses. In addition, no persons will be displaced due to construction of the solar project.

**No impacts have been identified or anticipated and no mitigation measures are required.**

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**XIV. PUBLIC SERVICES**

a) Would 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**

XIV a) **Fire Protection – Less Than Significant Impact:** Fire protection will be provided by the San Bernardino County Fire Department. The Fire District will require regular trimming of the on-site vegetation to prevent fire hazards. Interior roads will also need to be compacted to 80,000 pounds to allow fire truck access in the event a fire does occur and the road surface must be an all-weather surface. Two points of access will be required and the Fire Department may also require the installation of hammerheads to allow easy access to the Site by fire trucks. The above requirements will be conditions of approval. The project will not result in the need for additional fire protection services. The proponent will implement comprehensive safety measures that comply with federal state, and local worker safety and fire protection codes to minimize the potential for the occurrence of any brush fires during construction and during the life of the project. Because of the low probability of any fires occurring and the short-term nature of potential fire protection needs, the proposed project is not expected to generate any significant impacts.

XIV a) **Police Protection – Less Than Significant Impact:** Policing will be provided by the San Bernardino County Sheriff and the nearest office is about ten miles south of the site in Victorville, California. The proponent will install a chain-link fence for added security, and infrared cameras and remote notification will also be installed to reduce the likelihood of vandalism. Impacts to the Fire Department and Sheriff’s Department are not expected to be significant because of the low probability of any activities which may require a response from the Sheriff’s Department.

XIV a) **Schools – No Impact:** The site will be unmanned and long-term operation of the site will place no demand on school services since no residences will need to be constructed as part of the project and will not result in a temporary or permanent population increase in the local population.

XIV a) **Parks – No Impact:** Long-term operation of the project will place no demand on parks because the project will not involve the construction of residences nor will it result in a temporary or permanent increase in the local population.

XIV a) **Other Public Facilities - No Impact:** The proposed project will not result in the construction of any residences or result in an increase in the local population; therefore, the project will not generate any impacts to other public facilities.

**No significant impacts have been identified or anticipated and mitigation measures are required.**

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	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XV. RECREATION:</b>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<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**

XV. a, b) **No Impact:** The proposed project will be an un-manned solar facility once construction is completed; therefore, increases in use of local neighborhood and regional parks are not expected to occur. No new residences will be constructed and no additional increases in the local population will occur. Therefore, the project will not cause an increase in the use of local recreational facilities. The Helendale Community Services District Park and Equestrian Center is located adjacent to the Site on its west side. Potential use of this area as a park is not anticipated to be affected by the Project.

**No impacts have been identified or anticipated and no mitigations are required.**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XVI. TRANSPORTATION/TRAFFIC:</b> Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<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 checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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**

XVI a-b) **Less than Significant Impact:** Vehicle travel routes to the site will be from National Trails Highway via Vista Road, to Helendale Road to Smithson road to the site, with the main access along the south side of the project from Smithson Road. Construction traffic and periodic maintenance traffic will utilize this route to the site. These are all paved roads. Smithson Road continues around the east side of the project as a dirt road and provides access to several single family residences to the east of the property. Wild Road runs along the north side of the property, and is paved extending from Helendale Road. Wild Road continues beyond the project site to the northeast as a dirt road providing access to scattered residential properties in the area. During construction up to 80 workers per day may access the site and periodic deliveries of materials with a total of up to approximately 150 deliveries during the construction period. This increase is not expected to create a significant impact on local traffic due to an existing low traffic volume along Smithson Road and Wild Road. The number of vehicles entering and exiting the Project Site during peak construction will be approximately 25-40 vehicles per day including about four to eight delivery trucks. During non-peak periods the number of vehicles is expected to be approximately four to 12 vehicles per day and up to two to four delivery trucks. Most of the vehicle traffic will occur in a half-hour to hour period each morning and in late afternoon. After construction has been completed, maintenance vehicles will arrive at the Site three to five times a year for regular site maintenance. Maintenance traffic will enter the Site from Wild Road or Smithson Road located along the northern and eastern boundaries of the Site. This amount of traffic is within the capacity of the two-lane paved road, since existing traffic on the adjacent road is very light. Impacts are considered less than significant, since these impacts would be temporary during construction. Following construction, personnel would visit the site three to four times per year to perform maintenance activities.

- XV c) **No Impact.** The project would not 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. There are no airports in the vicinity of the project. As discussed in the Noise section of this document, the nearest airport is Southern California Logistics Airport, which is approximately 10 miles to the south.
- XVI d) **Less than Significant Impact:** The project will not substantially increase hazards due to a design feature or incompatible uses. The project site is adjacent to an established road accessed at points with good site distance and properly controlled intersections. There are no incompatible uses proposed by the project that would impact surrounding land uses.
- XVI e) **Less than Significant Impact:** Emergency access can occur at both the north and south ends of the Site via existing paved roads. The Fire Department will also require that 80,000 pound loads be the design of all on-site roads and that compaction of the gravel be sufficient to sustain these loads. The Fire Department may also require hammerhead turnarounds near the Site entrances or at other locations within the Site. Therefore, no impact is expected for emergency access.
- XVI f) **No Impact:** There are currently no public transit, bicycle or pedestrian facilities at the Site. The Project would not interfere with any such facilities and dedication of adjacent roads will be required as a condition of the project approval.

**No significant impacts have been identified or anticipated and no mitigations are required.**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XVII. UTILITIES AND SERVICE SYSTEMS:</b> Would 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 checked="" type="checkbox"/>	<input 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 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 type="checkbox"/>	<input checked="" type="checkbox"/>

**SUBSTANTIATION**

- XVII a-b) **No Impact:** The Project will generate no wastewater. During construction, portable restroom facilities will be maintained on the Site by an independent service company. These will be periodically cleaned and pumped as needed and then removed from the Site. There will be no facilities needed during operation of the facility since there will be no on-site workers, except visiting maintenance technicians or crews to clean the arrays.
- XVII c) **Less Than Significant Impact:** The Project will cause a negligible increase in stormwater runoff due to this very small change in impervious surface. No directed stormwater systems or improvements of existing ditches are deemed to be necessary along the adjacent roadways (Merrell Johnson 2012b). See Section on XI. Hydrology and Water Quality for further information on stormwater facilities.
- XVII d) **No Impact:** Any water usage on-site for activities such as cleaning will be minimal and brought in via water truck from an off-site source. The amount of impervious surface area increase will be minimal due to the small footprint of the project and the small footprint of footings, piers and pilings necessary to support each array. No water entitlements are needed.
- XVII e) **No Impact:** No wastewater treatment will be necessary (see XVII a-b above).
- XVII f-g) **Less Than Significant Impact:** The proposed project will be an unmanned solar power generating facility, generating no process waste and only small quantities of solid waste requiring disposal. During construction, the proponent will provide trash and recycling dumpsters on site. The proponent must complete the Solid

Waste Management Division's Construction Waste Management Recycling Plan, Parts 1 and 2. The project is required to comply with federal, state, and local statutes and regulations related to solid waste disposal. Organic waste such as grass and shrub clippings during maintenance activities will be left on-site to naturally decompose.

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

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**VIII. 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <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 will cause substantial adverse effects on human beings, either directly or indirectly?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**SUBSTANTIATION**

- XVIII a) **Less Than Significant Impact with Mitigation:** Several similar solar power projects are being proposed for San Bernardino County, and more can be expected if the solar projects are considered successful sources of clean and renewable energy. However, assuming each solar project implements mitigation measures to ensure non-significance in the areas described in this document, no significant cumulative effects are expected. At some point, if large acreages in the County are committed to renewable energy this may begin to limit habitat for other biological species.
- XVIII b) **Less Than Significant Impact:** The project does not have impacts that are individually limited but cumulatively considerable. The sites of projects in the area to which this project would add cumulative impacts are capable of absorbing such uses without generating any cumulatively significant impacts.
- XVIII c) **No Impact:** The Project will not result in substantial adverse effects on humans, either directly or indirectly. It is recommended that the mitigation measures listed in Biology be taken to further ensure less than significant environmental impacts from the project including stormwater pollution and from hazardous materials.

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

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## **XIX. LIST OF MITIGATION MEASURES**

(Any mitigation measures, which are not “self-monitoring,” shall have a Mitigation Monitoring and Reporting Program prepared and adopted at time of project approval)

**Condition Compliance Release Form (CCRF) Mitigation Measures** (Condition compliance will be verified by existing procedure)

**AQ – Construction Mitigation.** Developer shall submit written verification that all construction contracts and sub-contracts for the project contain provisions that require adherence to the following standards to reduce impacts to air quality: During construction, each contractor and subcontractor shall implement the following, whenever feasible:

- **MDAQMD-approved Dust Control Plan (DCP) submitted with the Grading Plans. The DCP shall include these elements to reduce dust production:**
- **Exposed soil shall be kept continually moist through a minimum of twice daily waterings to reduce fugitive dust during all grading and construction activities**
- **Street sweeping shall be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles.**
- **Site access driveways and adjacent streets shall be washed daily, if there are visible signs of any dirt track-out at the conclusion of any workday.**
- **Tires of vehicles will be washed before the vehicle leaves the project site and enters a paved road.**
- **All trucks hauling dirt away from the site shall be covered**
- **During high wind conditions (i.e., wind speeds exceeding 25 mph), areas with disturbed soil shall be watered hourly and activities on unpaved surfaces shall be terminated until wind speeds no longer exceed 25 mph.**
- **Storage piles that are to be left in place for more than three working days shall either be:**
- **Sprayed with a non-toxic soil binder, or**
- **Covered with plastic, or**
- **Re-vegetated until placed in use.**
- **Provide documentation prior to beginning construction demonstrating that the project proponents will comply with all MDAQMD regulations.**
- **Suspend use of all construction equipment operations during second stage smog alerts. For daily forecast, call (800) 367 4710 (San Bernardino and Riverside counties).**
- **Trucks/equipment shall not be left idling on site for periods in excess of ten minutes.**
- **Provide temporary traffic control during all phases of construction.**
- **Provide on site food service for construction workers.**
- **Use reformulated low-sulfur diesel fuel in equipment and use low-NOx engines, alternative fuels and electrification. Apply 4-6 degree injection timing retard to diesel IC engines. Use catalytic converters on gasoline-powered equipment.**
- **Minimize concurrent use of equipment through equipment phasing.**
- **Substitute electric and gasoline-powered equipment for diesel-powered equipment.**
- **Onsite electrical power hook-ups shall be provided for electric construction tools to eliminate the need for diesel-powered electronic generators.**
- **Maintain construction equipment engines in good order to reduce emissions. The developer shall have each contractor certify that all construction equipment is properly serviced and maintained in good operating condition.**
- **Install storm water control systems to prevent mud deposition onto paved areas.**
- **Contractors shall use low sulfur fuel for stationary construction equipment as required by AQMD Rules 431.1 and 431.2 to reduce the release of undesirable emissions.**

***(MM AQ-1, Prior to Land Disturbance/Grading)***

**Pre-construction Survey.** As a standard operating procedure for projects located in native habitat, a qualified biologist shall conduct a 30-day preconstruction survey to determine if DT, MGS, and/or BUOW have migrated onto the site. If the biologist encounters any of these species during the pre-construction survey, then the project proponent must contact the appropriate regulatory authority (USFWS and/or CDFG) to obtain the required take authorization for the project. *(MM BIO-1, Prior to Land Disturbance/Grading)*

**Nesting Birds.** The State of California prohibits the “take” of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal shall be conducted outside of the State identified nesting season (February 15 through September 1). Alternatively, a qualified biologist shall evaluate the site prior to initiation of ground disturbance to determine the presence or absence of nesting birds. Avoidance of active bird nests **MUST** occur during the nesting season. If an active nest is located in the project construction area it will be flagged and a 300-foot avoidance buffer placed around it. No activity will occur within the 300-foot buffer until the young have fledged the nest. *(MM BIO-2, Prior to Land Disturbance/Grading)*

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