



COUNTY OF SAN BERNARDINO  
NOTICE OF AVAILABILITY (NOA) / NOTICE OF INTENT (NOI) TO ADOPT  
AN INITIAL STUDY / NEGATIVE DECLARATION  
FOR SEPV 9

In accordance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines, County Staff prepared a Draft Initial Study / Negative Declaration (IS/ND) that identify and evaluate the environmental impacts of the below-named SEPV 9.

**Project Title:** SEPV 9

**Project No.:** P201100129

**Project Location:** Bounded by Valle Vista Road to the North, Morongo Road East, Indian Trail Road to the South and Abronia Avenue to the West; Assessor Parcel Numbers: 0611-191-11,15,16

**Project Description:** Conditional Use Permit to to establish a 9-Megawatt Solar Photovoltaic Electricity Generation Facility on 80 acres.

**Environmental Review and Public Comment:** The circulation of the Draft Negative Declaration and Initial Study is to encourage written public comments. Interested persons can review the Draft IS/ND at the following physical location:

**Land Use Services Department - Current Planning Division**  
385 North Arrowhead Avenue, First Floor  
San Bernardino, CA 92415-0182

You may obtain the document in electronic format by telephoning the Land Use Services Department at either (909) 387-4131, or by emailing the Planner at [kwhite@lusd.sbcounty.gov](mailto:kwhite@lusd.sbcounty.gov). To request a PDF version of the document from the Land Use Services Department database, please reference the project number above.

The comment period on the IS/ND starts on October 7, 2010 and closes on **November 8, 2011 at 5:00 PM**. Please submit comments to [kwhite@lusd.sbcounty.gov](mailto:kwhite@lusd.sbcounty.gov) or to:

Kevin White, Senior Planner  
County of San Bernardino  
Land Use Services Department - Current Planning Division  
385 North Arrowhead Avenue, First Floor  
San Bernardino, CA 92415-0182

**Public Hearing:** County Staff will schedule a public hearing to consider adoption of the Final IS/ND at a future date. In advance of the hearing date, Staff will distribute a separate notice regarding that hearing.

**SAN BERNARDINO COUNTY  
INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM**

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

**PROJECT LABEL:**

<b>APN:</b>	<b>0611-191-11,15, &amp;16</b>
<b>Applicant:</b>	Mr. Freeman Hall SEPV9, LLC/Solar Electric Solutions, LLC 21900 Burbank Boulevard, Suite 300 Woodland Hills, CA 91367 (818) 992-3127
<b>Community:</b>	Twenty-nine Palms
<b>Location:</b>	Bounded by Valle Vista Road to the North, Morongo Road East, Indain Trail Road to the South and Abronia Avenue to the West
<b>Project No:</b>	P201100129
<b>Staff:</b>	Kevin White
<b>Rep:</b>	Scott Denham
<b>Proposal:</b>	A Conditional Use Permit to establish a 9- Megawatt Solar Photovoltaic Electricity Generation Facility on 80 acres.

**USGS Quad:** Twenty-nine Palms  
**Lat/Long:** 34°11'17.3290"  
-116°15'25.87199"  
**T, R, Section:** T01N R08E Sec. 12  
**Thomas Bros** P4822/ GRID: A-6

**Community Plan:** N/A  
**LUZD:** RL-5  
**Overlays:** N/A

**PROJECT CONTACT INFORMATION:**

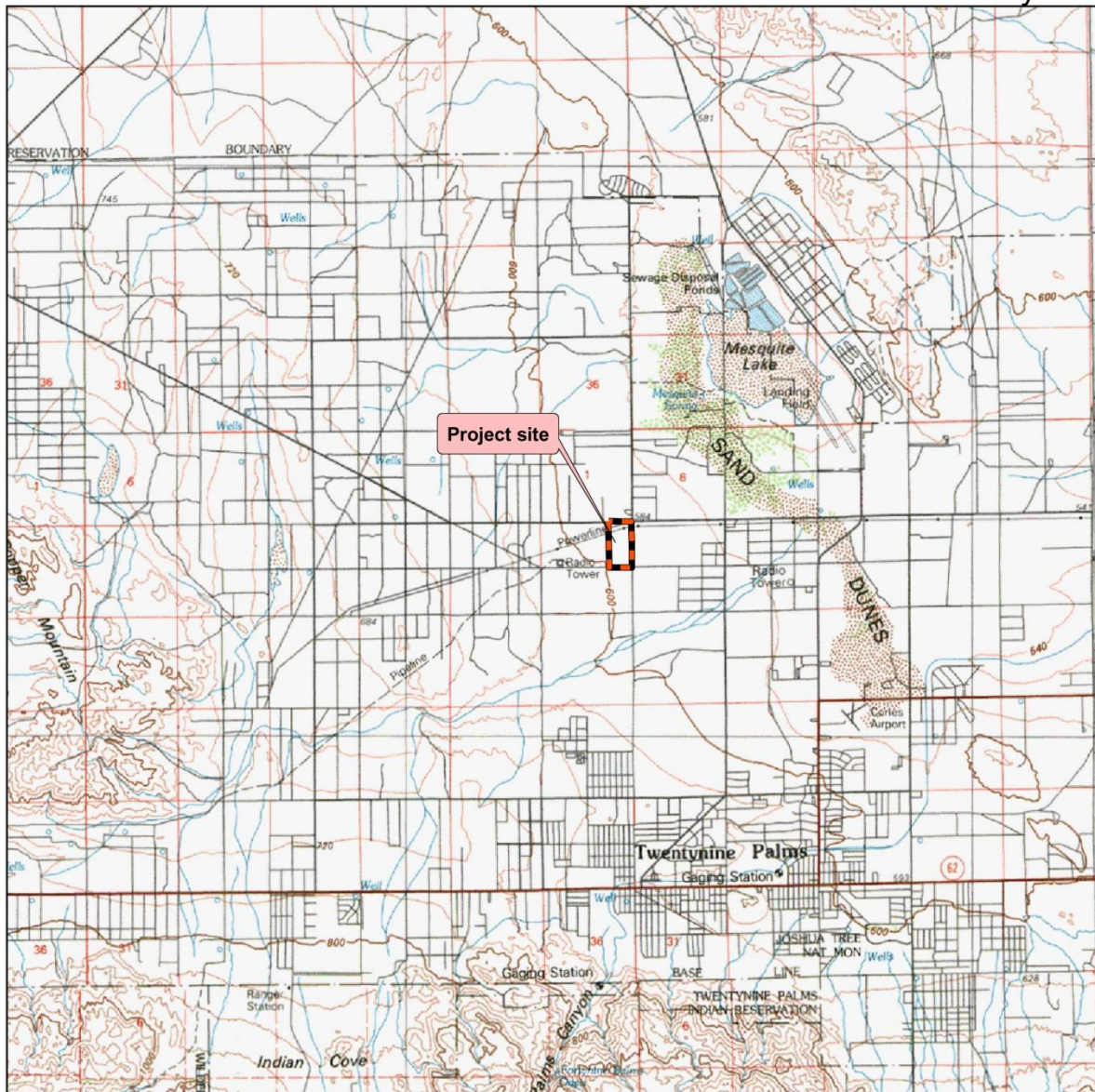
**Lead agency:** County of San Bernardino  
Land Use Services Department  
385 N. Arrowhead Avenue  
San Bernardino, CA 92415-0182

**Contact person:** Kevin White, Senior Planner  
**Phone No:** (909) 387-4131 Fax No: (909) 387-3223  
**E-mail:** kwhite@lUSD.sbcounty.gov

**PROJECT DESCRIPTION:**

SEPV9, LLC/Solar Electric Solutions, LLC ("SEPV9"/"Developer") proposes to construct and operate a 9-Megawatt (MWac) photovoltaic (PV) solar energy generation facility ("Project") on a 80-acre parcel bounded by Valle Vista Road to the North, Morongo Road to the East, Indain Trail Road to the South and Abronia Avenue to the West in unincorporated San Bernardino County (County). The project area is situated roughly in the North half of Section 12, Township 1 North, Range 8 East, S.B.B.&M. of the Twenty-nine Palms, CA USGS 7.5-minute topographic quadrangle at approximately Lat/Long 34°11'17.3290"/-116°15'25.87199" (See **Figure 1: Vicinity Map**).

**FIGURE 1: Vicinity Map**



**Legend**

 Project Site (SEPV-09-Morongo Site)

2,500 1,250 0 2,500 Meters

  
 7,750 3,875 0 7,750 Feet



Map Produced By  
 Phoenix Ecological Consulting, July 21, 2010

Source: ESRI, CNDDDB, Terrain Navigator, Phoenix, Solar Electric Solutions, LLC, 2010

Central (Facing North)



Central (Facing Northeast)



Central (Facing Southeast)



Central (Facing Southwest)



## Project Setting

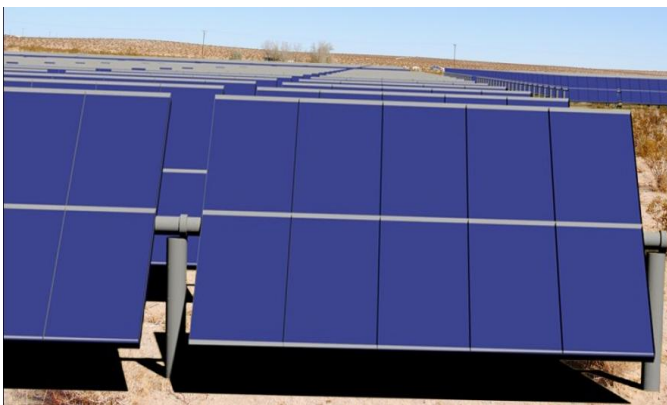
The site is located on relatively level terrain with an elevation of 1,950 feet. The Marine Corps Air-Ground Combat Center (MCAGCC) is located three miles to the northeast, the incorporated boundary of Twentynine Palms is situated 1.5 miles to the south and the northern edge of Joshua Tree National Park lies 5.0 miles to the south.

There is an existing residence to the west across Abronia Avenue and two residences located South of the project site across Indian Trail. There are very few other residential units scattered within the project vicinity. The Rural Living (RL-5) zoning is primarily designed for residential development on large parcels 5 acres in size or greater; however in the project vicinity, housing density is estimated at one house per forty acres.

Existing land uses and Land Use Zoning Districts on and adjacent to the proposed Project site are listed in **Table 1**.

Location	Existing Land Use	Land Use Zoning District
<b>Proposed Site</b>	Vacant	RL-5
North	Vacant/Residence	RL-5
South	Vacant/Residence	RL-5
East	Vacant	RL-5
West	Vacant/Residence	RL-5

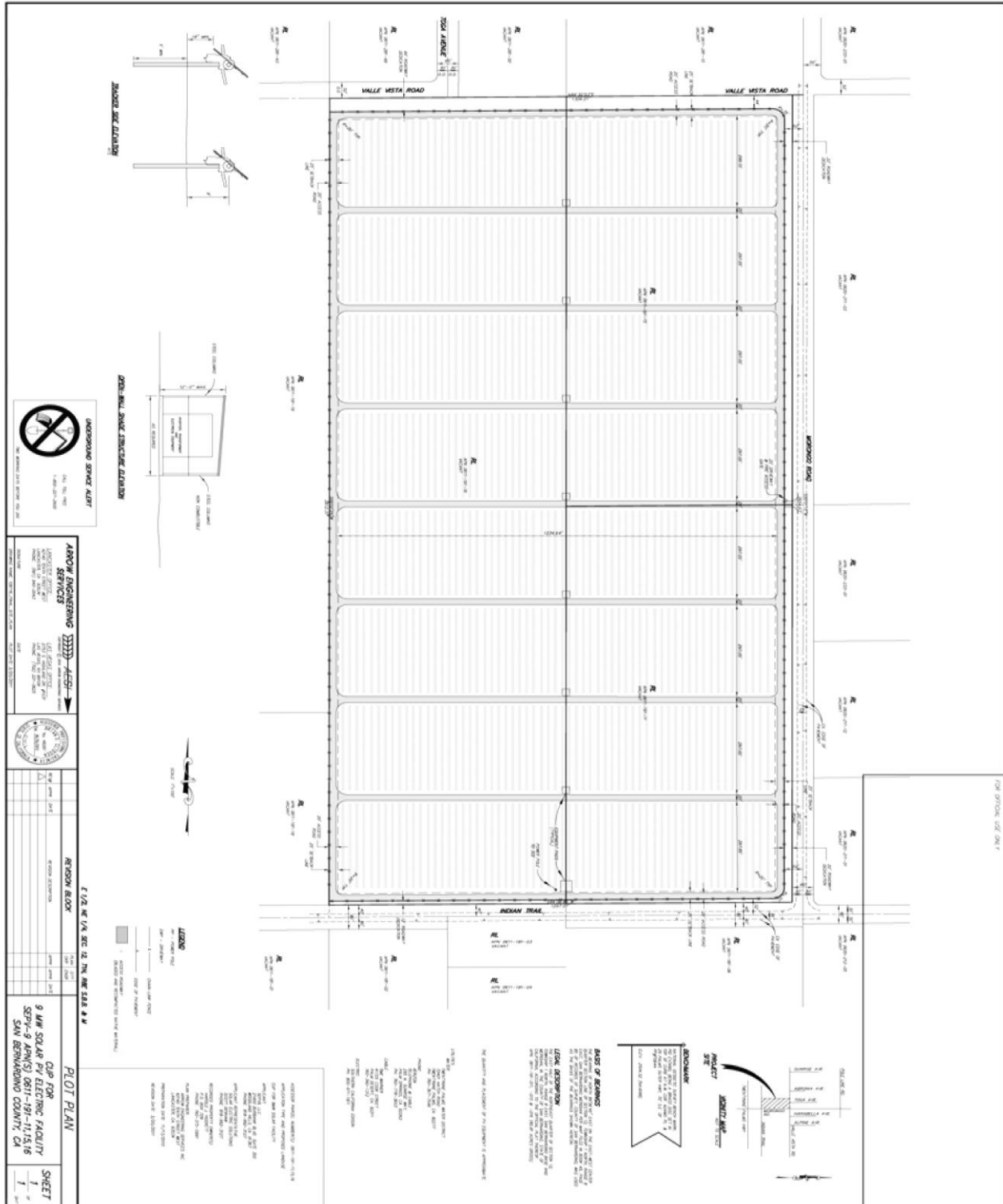
## Project Characteristics



The proposed PV project will generate equivalent power for approximately 2,250 average-size homes. The project will utilize approximately 42,000 PV modules mounted on single-axis sun tracking systems mounted in rows running north-south. The modules are wired together and connected to inverters, which convert Direct Current (DC) into electrical Alternating Current (AC). The electricity is then stepped up to 33 kV and collected via underground lines that terminate at the point of interconnection to the local electricity grid via an

existing Southern California Edison (SCE) power line, which runs along the project site. SCE will buy the energy produced by the project via a long-term Power Purchase Agreement. The single-axis tracking PV panels are mounted on steel columns approximately five feet above grade and tilt to a maximum height of eight feet above grade. Electrical equipment, including inverters and transformers, will be located on concrete pads and all high-voltage AC electrical conductors will be located underground. The Conceptual site plan is shown in **Figure 2**.

Figure 2: Conceptual Site Plan



**ARROW ENGINEERING SERVICES**  
 10000 WILSON AVENUE  
 SUITE 100  
 BAKERSFIELD, CA 93311  
 TEL: (805) 833-1111  
 FAX: (805) 833-1112  
 WWW.ARROWENGINEERING.COM

**PROJECT:** SEPV9 SOLAR FACILITY (APNs 0611-191-11, 15, 16)  
**SHEET:** 1 OF 1

**DATE:** 09/01/11

**SCALE:** AS SHOWN

**PROJECT LOCATION:** 9 LINE SOLAR FACILITY (APNs 0611-191-11, 15, 16) SAN BERNARDINO COUNTY, CA

**DESIGNED BY:** [Signature]

**CHECKED BY:** [Signature]

**DATE:** 09/01/11

**LEGEND**

- [Symbol] SPECIAL SENSITIVE ZONING
- [Symbol] UNDERGROUND SERVICE ADAPT
- [Symbol] GENERAL SENSITIVE ZONING
- [Symbol] ROAD
- [Symbol] INDIAN TRAIL
- [Symbol] VALLE MESA ROAD

**LIST OF REVISIONS**

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMITTING	09/01/11

**NOTES:**

- ALL DIMENSIONS ARE IN FEET AND INCHES.
- ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.
- ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.

**GENERAL NOTES:**

- ALL DIMENSIONS ARE IN FEET AND INCHES.
- ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
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## **Water Supply**

Water will be required during construction for earthwork operations, primarily related to dust control for road construction, grading, and other site work. Construction is anticipated to last 100 workdays. Water will be applied via water truck. Construction is anticipated to require a maximum of 20,000 gallons per day of water depending upon construction activity over the duration of the construction phase for a maximum total of 6.14 acre-feet. A minimal amount of water will be required for construction worker needs (e.g., drinking water, sanitation facilities). Bottled water and portable sanitation units will be used during construction.

For operational and maintenance activities, water will be needed for washing the solar panels and dust control as necessary.

Since the proposed Project will not be directly connected to a public water system, water during the construction period will be obtained from the nearest Twentynine Palms Water District Service pay meter station. Water need is expected to be approximately 0.4 gallons per square meter of panel. Based on the proposed Project size, approximately 27,720 gallons will be required each time the panels are washed. Assuming the panels are washed four times per year, the total annual operational water use will be 0.34 acre-feet. An additional 25,000 gallons (0.08 AF) may be used annually to apply soil binder for dust suppression if needed. The total projected water use for operations and maintenance is approximately 135,880 gallons (0.42 AF) per year.

The proposed Project will have no structural buildings located onsite. The Twentynine Palms Fire Department has determined that no on-site fire suppression system infrastructure is required for the Proposed Project.

## **Signage**

No signs other than the project contact information sign and those required for safety are being proposed.

## **Perimeter Fence**

The perimeter of the Project site will be enclosed by a chain link fence topped with three strands of barbed wire with a maximum height of eight feet and access provided through a rolling gate located at the driveway off of Indian Trail. The main purpose of the fence is to prevent unauthorized access to the site.

## **Grading**

Clearing and grubbing of the site will be performed as required, but no grading will be required except for the access roads, which will be created by blading and re-compacting native soil, and the concrete equipment pads, which will require engineered foundations.

## **Traffic**

Worker commute (car pooling will be implemented) vehicles will account for up to twenty (20) vehicle trips to and from the site per day depending upon construction activity. Delivery of materials and supplies will account for up to 18 vehicle trips to and from the site per day depending upon construction activity. It is estimated that up to 200 truck trips are required to complete the project. It is estimated that there will be an average of 50 truck deliveries per month. Truck trips will be intentionally spread out throughout the construction day and utilize off peak hours as is practical by being scheduled to arrive at predetermined times to minimize the impacts on local roads.

Onsite construction equipment will consist of traditional equipment used for site development. There will be minor clearing and grubbing and road grading, that will be accomplished with scrapers, motor graders, backhoe/loaders, water trucks, dozers, and compaction equipment as needed. The PV material will be off-loaded and installed using small cranes, boom trucks, forklifts, rubber tired loaders, rubber tired backhoes, and other small to medium sized construction equipment as needed.

During project operation, the project will be unmanned; as a result, minimal traffic (approximately 18 vehicle trips per month) will be generated by facility operation for periodic maintenance.

**Construction Schedule:**

It is anticipated that this project will be constructed in approximately 4 months (16 weeks) and will require between two and 20 workers onsite per day depending upon construction activity.

**Decommissioning**

The PV system will be decommissioned when the project's life is over. Most parts of the proposed system are recyclable. Panels typically consist of silicon, glass, and an aluminum frame. Tracking systems (not counting the motors and control systems) typically consist of steel and concrete. All of these materials can be recycled. Concrete from deconstruction is to be recycled. Local recyclers are available. Metal, scrap equipment and parts that do not have free flowing oil may be sent for salvage. Equipment containing any free flowing oil will be managed as waste and will have to be evaluated. Oil and lubricants removed from equipment will be managed as used oil -- a hazardous waste in California. Typical federal, state and local standards and regulations will apply.

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

- Mojave Desert Air Quality Management District
  - California Department of Fish and Game
-



## **EVALUATION FORMAT**

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

Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant	No Impact
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Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

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

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

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**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

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

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Aesthetics               | <input type="checkbox"/> Agriculture and Forestry Resources | <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 & 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:** (To be completed by the Lead Agency)

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

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

\_\_\_\_\_  
 Signature (prepared by Kevin White, Senior Planner)

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Signature: Judy Tatman, Supervising Planner, AICP  
 Land Use Services Department

\_\_\_\_\_  
 Date

**I. AESTHETICS - Will the project**

- |  |                          |                                     |                                     |                                     |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Create a new source of substantial light or glare, which will adversely affect day or nighttime views in the area?                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |

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

- a) **Less than Significant Impact.** The proposed Project will not have a substantial adverse effect on a scenic vista as there are no state designated scenic highways in the vicinity of the project area.

The County General Plan Open Space Element, Policy OS 5.1. states that a feature or vista can be considered scenic if it:

- Provides a vista of undisturbed natural areas;
- Includes a unique or unusual feature that comprises an important or dominant portion of the viewshed; or,
- Offers a distant vista that provides relief from less attractive views of nearby features (such as views of mountain backdrops from urban areas).

The project site is zoned Rural Living (RL-5) and relatively flat. The nearest mountains are the Copper Mountains located 4.75 miles to the west. The solar equipment on site, comprising of PV modules mounted on tracker units and associated electrical equipment, will maintain a low profile – generally no more than ten feet high. The project will also include access roads and a chain link fence that will be erected around the perimeter of the site. None of the proposed equipment will obstruct any view sheds in the area. Therefore, the proposed Project will not have a substantial adverse effect on a scenic vista or adversely change the visual character of the area; impacts will be less than significant.

- b) **No Impact.** The project will not substantially damage scenic resources or historic buildings within a state-designated scenic highway, as none exist onsite and the closest state designated scenic highway is more than 3.5 miles away.
- c) **Less than Significant Impact.** The proposed Project will have a low profile (ten feet max height) and minimal lighting; therefore, it will not substantially degrade the existing visual character or quality of the site and its surrounding. The current visual character of the Project site is typical of rural living areas consisting of flat lands surrounded by sparse residential development, and typical vegetation communities such as creosote bush, burro-weed, desert dandelion, and mustard. Human disturbance is minimal within the site. There are occasional trash piles, no structures or evidence of livestock grazing on site. There are also occasional Off Highway Vehicle (OHV) trails within the site. There are very few other

residential units in the vicinity. Housing density is estimated at one house per forty acres.

The proposed Project will result in the removal of the majority of the current vegetation on the site (outside the required setbacks); place photovoltaic panels among the remaining vegetation and other appurtenant structures; construct access roads; and erect a chain link fence around the perimeter of the site. These features will alter the existing visual character from the current vacant rural view but will be compatible with typical features expected in rural living.

Due to the distance from Highway 62, the low-angle viewing aspect, the natural topography, the actual ground coverage of the solar panels, and the low reflectivity of the solar panel surface, the project appears as rows of light-colored geometric shapes. The intervening view from Hwy 62 currently includes sporadic residential and infrastructure development throughout the landscape and the MCAGCC Twentynine Palms in the distance. The proposed Project blends well with the existing view.

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

San Bernardino County Ordinance No. 3900 regulates glare, outdoor lighting, and night sky protection. Nighttime lighting associated with the proposed Project will be subject to County approval and compliance with San Bernardino County requirements. Specifically, lighting at the proposed facility will be installed at access gates and electrical equipment pads for safety, security or operational purposes. Lighting will be motion-activated and directed toward the ground from low elevation (<14 ft) poles. All lights will be shielded so that there is no upward directed light.

Also, a Lighting Plan will be required to ensure that there is no lighting overspill. All light standards shall be shown on a dimensioned lighting plan. Manufacturer's specifications and standards shall be provided for each type of lighting device. The light intensity shall be plotted on a dimensioned plan and no overspill beyond project boundaries shall be allowed.

**The following mitigation measures are required as conditions of project approval to further reduce potential lighting impacts to a level below significant. The required mitigation measures are:**

**Mitigation Measures:**

**AES-1: Lighting Requirements.** The area of illumination from any lighting shall be confined to be within the site boundaries and to minimize impacts to night sky views from surrounding properties. The glare from any luminous source, including on-site lighting shall not exceed one-half (0.5) foot-candle at property line. On-site lighting shall be fully shielded, diffused, or directed in a manner to avoid glare directed at adjacent properties, roadways or any light spill into any wildland areas surrounding the site that might affect nocturnal animals. No light shall project onto adjacent roadways in a manner that interferes with on-coming traffic. All lighting shall be

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limited to that necessary for maintenance activities, security and safety purposes.  
[Mitigation Measure **AES-1** General Requirements/Planning]

**AES-2.** Lighting Plan. The developer shall submit for review and obtain approval from County Planning in coordination with Building and Safety of a dimensioned lighting (photometric) plan. Exterior lighting shall be kept to the minimum required for safety and shall support the preservation of night sky views. The lighting plan shall include the following:

- a) The design of on-site lighting shall confine the area illumination to the site boundaries and in a manner to avoid glare to adjacent properties and to motorists on adjacent roadways.
- b) All lighting shall not exceed one-half (0.5) foot-candle at the property line.
- c) The Plan shall show the type, height, and location of all outdoor lights.
- d) All lighting shall be hooded, shielded, or directional in nature so that it does not extend beyond the property boundary and is directed downward.
- e) The Plan shall utilize dimmers, photocells and motion detectors to reduce all lighting, save energy and reduce night-sky light pollution.

[Mitigation Measure AES-2 Building Permits/ Planning]

**AES-3.** Lighting Installed. Any installed lighting shall be in accordance with the approved lighting plan, as confirmed by an on-site inspection. [Mitigation Measure AES-3 Final Inspection/ Planning]

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
<b>II. AGRICULTURE AND FORESTRY 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Will 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):

- a) **No Impact.** The proposed Project will not 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, since the proposed Project is not designated as such. No significant adverse impacts are identified or anticipated and no mitigation measures are required.

- b) **No Impact.** The proposed Project will not conflict with existing zoning for agricultural use, or a Williamson Act contract. The current General Plan land use designation for the proposed Project area is RL-5 (Rural Living), which allows the development of renewable energy generation facility with a Conditional Use Permit (CUP) [Development Code Section 85.06]. The proposed Project area is not under a Williamson Act contract.
  - c) **No Impact.** The proposed Project will not 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)). The proposed Project area is currently vacant land, which has never been designated as forest land or timberland. No rezoning of the project site will be required as the proposed energy facility is compatible with the current zoning designation: RL-5 (Rural Living).
  - d) **No Impact.** The proposed Project will not result in the loss of forest land or conversion of forest land to non-forest use. The proposed Project area is currently vacant land, which has never been designated as forest land or timberland.
  - e) **No Impact.** The proposed Project will not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use. The current General Plan land use designation for the proposed Project area is RL-5, which allows the development of renewable energy generation facility with a Conditional Use Permit [Development Code Section 85.06].
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Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
<b>III. AIR QUALITY</b> - Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Will the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

- a) **Less than Significant Impact.** The proposed Project will not conflict with or obstruct implementation of the applicable air quality plan. The project site is located within the Mojave Desert Air Basin (MDAB) and is within the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). The Air Quality Management Plan (AQMP) provides a program for obtaining attainment status for key monitored air pollution standards, based on existing and future air pollution emissions resulting from employment and residential growth projections. The AQMP is developed using input from various agencies' General Plans and other projections for population and employment growth. While the proposed Project is not identified specifically in the County of San Bernardino General Plan, it will not generate new homes or employment opportunities that will change the County's projections. Given that the proposed Project will not alter the population or employment projections considered during the development of the AQMP, and considering the minor emissions attributable to the proposed Project during operation (refer to discussion in item III(b) below), impacts associated with AQMP consistency will be less than significant.

In order to limit the production of fugitive dust during implementation of the proposed project, construction activities will be conducted in accordance with MDAQMD Rules 403 - *Fugitive Dust* and 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. This includes using water trucks to minimize the production of visible dust emissions to 20 percent capacity in areas of where grading or vegetation removal occurs, within the staging



areas, and on any unpaved roads utilized during project construction.

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

- b) **Less than Significant Impact.** The proposed Project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Air quality impacts will include construction exhaust emissions generated from construction equipment, vegetation clearing and earth movement activities (if necessary), construction workers' commute, and construction material hauling for the entire construction period. These activities will involve the use of diesel- and gasoline-powered equipment that will generate emissions of criteria pollutants such as Carbon Monoxide (CO), Nitrogen Oxides (NO<sub>x</sub>), Reactive Organic Gases (ROG) or Volatile Organic Compounds (VOC), Sulfur Oxides (SO<sub>x</sub>), Particulate Matter less than 10 microns (PM<sub>10</sub>), and Particulate Matter less than 2.5 microns (PM<sub>2.5</sub>). The project construction activities also represent sources of vehicle re-entrained fugitive dust (which includes PM<sub>10</sub>), a potential concern because the proposed Project is in a non-attainment area for ozone and PM-10.

Construction-related increases in emissions of fugitive dust, exhaust from construction equipment, and employee commute vehicles will be temporary and localized during the four months of total construction time. The proposed Project will also include dust abatement measures that will limit the generation of pollutants, including particulate matter 10 microns or less in diameter (PM<sub>10</sub>), consistent with Rule 403.2 *Fugitive Dust Control for the MDPA*. This includes using water trucks to minimize the production of visible dust emissions to 20 percent opacity in areas where grading or vegetation removal occurs, within the staging areas, and on any unpaved roads used during project construction. Additionally, water application will be used to increase moisture content and reduce dust generation during construction. In the context of the project design and construction features, the proposed Project construction-related air quality impacts will be negligible.

Over its lifetime, the proposed Project will not violate the regulations set forth by the MDAQMD *Rule Book* or *CEQA and Federal Conformity Guidelines*. Emissions will be from worker commute and deliveries to the site.

Electricity generation via the use of photovoltaic systems does not generate chemical emissions that will negatively affect air quality. The proposed Project is designed to limit the amount of vegetation that will be removed and limit the amount of grading required for access, which will minimize fugitive dust generated during the life of the project.

During operation, one to two maintenance vehicles (generally pickup trucks) will routinely travel to the site per month, producing an insignificant amount of emissions.

- c) **Less than Significant Impact.** The proposed Project will not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-
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attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). The project will contribute criteria pollutants in the area during the short-term project construction period. None of the activities associated with the proposed Project will create a substantial permanent increase in the emissions of criteria pollutants that will be cumulatively considerable. Occasional patrolling and routine maintenance and repairs of above facilities will have no impact on the emissions of criteria pollutants that will be cumulatively considerable. There are no sources of potential long-term air impacts associated with the implementation of the proposed project. Therefore, impacts will be less than significant.

- d) **Less than Significant Impact.** The proposed Project will not expose sensitive receptors to substantial pollutant concentrations. The MDAQMD defines sensitive receptors as residences, schools, daycare centers, playgrounds and medical facilities (MDAQMD 2009). Residences in the project area will be exposed to short-term construction air quality impacts associated with construction exhaust emissions generated from construction equipment, vegetation clearing, construction workers' commute, and construction material hauling during the construction period. There will be no air quality impacts from project operation: electricity generation via the use of photovoltaic systems does not generate chemical emissions that will negatively contribute to air quality. 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 will reduce any potential impacts from the project. No significant adverse impacts are identified or anticipated and no additional mitigation measures are required.
- e) **No Impact.** The proposed Project will not create objectionable odors that will affect a substantial number of people. Electricity generation via the use of photovoltaic systems does not generate chemical emissions that will negatively affect air quality or produce objectionable odors. Potential odor generation associated with the proposed Project will be limited to construction sources such as diesel exhaust and dust but these will be temporary and not be substantial. 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 will 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 a condition of project approval.

### **Mitigation Measures**

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

- a) Equipment/vehicles shall not be left idling for period in excess of five minutes
  - b) Engines shall be maintained in good working order to reduce emissions
  - c) Onsite electrical power connections shall be made available where feasible
  - d) Ultra low-sulfur diesel fuel shall be utilized
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- e) Electric and gasoline powered equipment shall substituted for diesel powered equipment where feasible
- f) Signs shall be posted requiring all vehicle drivers and equipment operators to turn off engines when not in use.
- g) In addition, all on-road diesel trucks shall not idle more than five minutes per truck trip or per day on the project site.
- h) All transportation refrigeration units (TRU's) shall be provided electric connections. [Mitigation Measure **AQ-1** - General Requirements/Planning]

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

- a) Exposed soil shall be kept continually moist through waterings to reduce fugitive dust during all grading/construction activities. (Minimum twice daily).
- b) Street sweeping shall be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles.
- c) Site access driveways and adjacent streets shall be washed daily, if there are visible signs of any dirt track-out at the conclusion of any workday.
- d) Construction Vehicle tires shall be washed prior to leaving the project site.
- e) All trucks hauling dirt away from the site shall be covered.
- f) 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 cease until wind speeds no longer exceed 25 mph.
- g) Storage piles that are to be left in place for more than three working days shall either be sprayed with a non-toxic soil binder, covered with plastic or revegetated. [Mitigation [Measure **AQ-2** - Grading/Planning]

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

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

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

a) **Less than Significant with Mitigation Incorporated.** The project with mitigation will not have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS). According to the proposed Project's Biological Study (Phoenix Ecological Consulting [PEC] May, 2011) the vegetation communities on site include creosote bush (*Larrea tridentata*)/Bursage (*Ambrosia dumosa*) scrub. There are also dominant perennials creosote (*Larrea tridentata*), burro-weed (*Ambrosia dumosa*), Annual bursage (*Ambrosia acanthicarpa*) and white ratany (*Krameria grayia*), dominant annuals (Desert dandelion (*Malacothrix glabrata*), filaree (*Eriodinium cicutarium*), fiddleneck (*Amsinckia tessellata*) and Mustard (*Brassica tournefortii*). (See Biological Survey Report 2011, Table 5 for a complete list).

Three potential rare plants identified in the CNDDDB rarefind 3 database that occur within ten miles and have the potential to occur on site: Little San Bernardino Mtns. linanthus (*Linanthus maculatus*), Latimer's woodland-gilia (*Saltugilia latimeri*) and jack-ass clover (*Wislizenia refracta* ssp. *refracta*) (Figure E, Table 2). All three plant species have sensitivity rankings with the California Native Plant Society (Table 1). However, none of the species are threatened nor endangered under California Endangered Species Act or the National Endangered Species Act.

Due to the fact that the proposed site is located within the range of the before-mentioned plant species surveys were implemented during the 2010 survey period. The rare plant surveys occurred on April 30<sup>th</sup>, 2010. Survey methodology incorporated the United States Fish and Wildlife Service (USFWS) Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Species (USFWS, 2000). No sensitive species were detected during the field survey which was conducted during the appropriate time of year. The survey was conducted in the spring of 2010 when annual rainfall levels were above average which would have increased the detectability of any potential rare plants on the project site. Due to the fact that no rare plant species were encountered during the field survey there are no mitigation recommendations or avoidance measures required. Additionally, since no sensitive plant species or habitats are present there are no anticipated impacts to integrity or continuity of the surrounding habitat. All plants detected during the botanical survey effort are listed on Table 5 of the Biological Report (PEC 2011).

The proposed site is located within the range of the desert tortoise, burrowing owl and the Mojave fringed-toed lizard. According to PEC (2011) the project site is situated in the western portion of the Mojave Desert where desert tortoise population range is in a low-medium density zone: 20-50 tortoises per square mile. Within the Mojave population of the desert tortoise, the BLM has divided the range into six recovery units. The project site is within the desert tortoise western Mojave recovery unit. There are 14 Desert Wildlife Management Areas (DWMAs) within the six recovery units. DWMAs are considered critical habitat and usually offer preferred habitat characteristics. The project site is not located within a DWMA. The nearest is the Pinto Mountains DWMA located approximately 11 miles to the southeast.

Protocol surveys were conducted by PEC during the 2010 survey period. According to the subsequent Biological Resources Survey Report (PEC 2011) neither desert tortoises nor any sign of their existence (scats, bones, eggshell fragments, burrows, courtship ring, drinking depressions or fresh dirt/diggings) were detected within the project boundary. Although the findings of the desert tortoise surveys were negative, there is moderate potential for tortoises that occur in the vicinity to wander onto the site during construction or project operation. It is anticipated that an incidental take permit will not be required for this project; nonetheless, there are several mitigation measures, listed below, which the project will have to comply with in order to prevent tortoises from entering onto the site during the construction phase. With implementation of these measures impacts associated with desert tortoises are anticipated to be less than significant.

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According to the Biological Resources Study (PEC 2011) The surveys were positive for burrowing owls. Two burrowing owls (one pair or territory) were detected on site utilizing an abandoned kit fox den. Both owls flushed from the burrow during the pedestrian surveys on April 30, 2010. The female flew to the southeast and the male flew to the west, emitting alarm calls. The burrow complex had owl pellets, whitewash and tracks present. A burrowing owl pair was also present at the same canid burrow complex when the site was re-visited during the Phase III burrowing owl survey that occurred on May 16-19, 2011. Based on the owl behavior, during the May visit, the female is likely incubating eggs and/or some of the eggs have hatched. The female was underground for the majority of the site visits and the male owl was seen delivering prey items to the burrow or perched in a nearby creosote bush. No more than two owls were ever seen on site. Burrowing owls have been detected in the vicinity and the site is considered occupied burrowing owl habitat (CNDDDB 2010).

Due to the presence of owls on site, there are several mitigation measures that will be required in order to mitigate the impacts. The mitigation measures include: (1) Developing mitigation and monitoring plan (2) Passive relocation (3) Preconstruction surveys.

The site was negative for all other sensitive vertebrates that have the potential to occur in the area: American badger, Bendire's thrasher, Mohave fringed-toed lizard and pallid San Diego pocket mouse. No further mitigation measures for these species are needed.

No naturally occurring native fish populations or amphibians were observed within the proposed Project site. Reptiles, birds, and mammals that were observed within the project site and identified in the Biological Report (PEC 2011) include the following:

#### **Mammals**

- Antelope ground squirrel (*Ammospermophilus leucurus*)
- Black tailed jack rabbit (*Lepus californicus*)
- Round-tailed ground squirrel (*Spermophilus tereticaudus*)
- Merriam's kangaroo rat (*Dipodomys merriami*)
- Desert Kangaroo rat (*Dipodomys deserti*)

#### **Birds**

- American kestrel (*Falco sparverius*)
  - Barn swallow (*Riparia riparia*)
  - Black-throated sparrow (*Amphispiza bilineata*)
  - Gambels quail (*Callipepla gambelli*)
  - Horned lark (*Eremophila alpestris*)
  - House finch (*Carpodacus mexicanus*)
  - Mourning dove (*Zenaida macroura*)
  - Northern mockingbird (*Mimus polyglottos*)
  - Tree swallow (*Tachycineta bicolor*)
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- Western kingbird (*Tyrannus verticalis*)
- White crowned sparrow (*Zonotrichia leucophrys*)

### Reptiles

- Desert iguana (*Dipsosaurus dorsalis*)
  - Desert horned lizard (*Phrynosoma platyrhinos*)
  - Patch nosed snake (*Salvadora hexalepis*)
  - Side-blotched lizard (*Uta stansburiana*)
  - Western whiptail (*Cnemidophorus tigris*)
  - Zebra-tailed lizard (*Callisaurus draconoides*)
- b) **No Impact.** The project implementation will not have any impacts to sensitive or regulated habitat because the project site is devoid of native riparian vegetation or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS.
- c) **No Impact.** No waters or wetlands that fall under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), California Regional Water Quality Control Board (RWQCB), and/or CDFG are found on the proposed Project area (PEC 2011). No indicators of hydrologic activity (topographical or geological), hydric soils, or hydrophytic vegetation were observed onsite. In addition, no blue-line streams are found on the Sunfair U.S. Geological Survey (USGS) 7.5-minute quadrangle in the vicinity of the project area.
- d) **Less than Significant with Mitigation Incorporated.** The project will not have an effect on migratory fish, but may have impacts on the Burrowing Owl. See section A above.
- e) **Less than Significant Impact.** The County Development Code Section 88.01.060 (Desert Native Plant Protection) provides regulation for the removal or harvesting of specified desert native plants in order to preserve and protect the plants and to provide for the conservation and wise use of desert resources. According to the Biological Report prepared for the proposed Project (PEC 2011), none of the related desert native plants listed in 88.01.060 (c) are present onsite. There are no other local policies or ordinances protecting biological resources that are applicable to the proposed Project site. Therefore, development of the proposed Project will not conflict with local policies or ordinances protecting such resources.
- f) **No Impact.** The project area is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There will be no take of critical habitat and, therefore, no land use conflict with existing management plans will occur.
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## Mitigation Measures

### Avoidance Measures:

- BIO-1:** Burrowing Owl Avoidance. The project proponent should evaluate whether a project design modification is feasible. If burrowing owl habitat avoidance is feasible, a minimum of 6.5 acres of foraging habitat, calculated at a 100 meter foraging radius, should be maintained per pair or territory. Ideally, the foraging habitat would be maintained in a conservation easement. If avoidance is feasible, no disturbance should occur within 50 meters of occupied burrows during the non-breeding season (September 1 – January 31) or within 75 meters during the breeding season (February 1 – August 31).  
[Mitigation Measure **BIO-1** - Grading/Planning]

### On-Site Mitigation Measures for Unavoidable Impacts:

- BIO-2** Burrowing Owl Nesting. If project design modification is not feasible, occupied burrows should not be disturbed during the nesting season (February 1 to August 31) unless a qualified biologist has determined the owls are not breeding or that all juvenile owls are foraging independently. [Mitigation Measure **BIO-2** - Grading/Planning]
- BIO-3** On-site mitigation. Acquire on-site mitigation lands at no less than 6.5 acres per pair or single bird. The lands should be preserved in a conservation easement. Due to the presence of one territory, the minimum area needed would be 6.5 acres. When the destruction of occupied burrows is unavoidable, existing burrows within mitigation lands should be enhanced or enlarged or created (by installing artificial burrows) in a ratio of 1:1 in the on-site mitigation lands. Mitigation lands should be fenced to prevent unwanted canid predators. Fencing would also provide potential perch sites for owls; prevent trespassers and OHV use in the conservation area. The project sponsor should provide funding for long-term management and monitoring of protected lands. [Mitigation Measure **BIO-3** - Grading/Planning]

### Off-site Mitigation Measures for Unavoidable Impacts:

- BIO-4** Burrowing Owl off-site mitigation. If on-site mitigation is not feasible, off-site habitat compensation for loss of burrowing owl nesting and foraging habitat should be acquired through a local conservation/land management group and permanently protected at the following ratios:
- a) Replacement of occupied habitat with occupied habitat at 1.5 times 6.5 acres per pair or single bird;



- b) Replacement of occupied habitat with habitat contiguous with occupied habitat at 2 times 6.5 acres per pair or single bird; and/or
- c) Replacement of occupied habitat with suitable unoccupied habitat at 3 times 6.5 acres per pair or single bird.

[Mitigation Measure **BIO-4** - Grading/Planning]

Passive Owl Relocation Measures:

**BIO-5 Passive Relocation Measures.** Prior to eviction, the project proponent should retain a qualified burrowing owl biologist to band the owls to aid in re-sighting efforts, post-eviction. Owls should be banded with a unique alpha-numeric color band to aid in re-sighting and relocation efforts.

- If avoidance is not an option, passive owl relocation should occur, after August 31<sup>st</sup>, over a two week period to acclimate the owls to the new site. Passive relocation involves installing one-way doors on active burrows to allow owls to “self-evict”. The doors are installed for two days. After two days, the burrows are excavated and any owls remaining inside the burrows are allowed to escape. The site is monitored for one week to determine the status of the burrowing owls.
- A monitoring plan should be developed that evaluates the methodology of the relocation efforts, success criteria, re-sighting efforts and habitat enhancement and management of the mitigation lands.
- An annual report that evaluates the relocation efforts and monitoring efforts should be submitted to the California Department of Fish and Game.
- Conduct a preconstruction survey, 30 days prior to ground disturbance and after the passive relocation procedure has been completed, for burrowing owls prior to any ground disturbance. If burrowing owls are detected on site, no disturbance should occur within 50 m (160 ft) of occupied burrows during the non-breeding season (September 1 – January 31) or within 75 meters (250 ft) during the breeding season (February 1 – August 31).

[Mitigation Measure **BIO-5** - Grading/Planning]

**BIO-6: Environmental Awareness Program.** The developer shall prepare, submit for review and obtain approval of a letter agreeing to adhere to the following requirements and to include in any construction contracts/subcontracts a requirement that project contractors adhere to the following requirements:

- a) Developer shall prepare, submit and obtain approval of a worker environmental awareness program that includes the penalties associated with violation of any of the resource protection laws governing the resources on the project site.
- b) The program shall specifically include a handout detailing basic biology of the desert tortoise threats to their survival, and specific actions to be (or not to be) taken on the job site.
- c) The handout also shall include a Signed Authorization page whereby the person being trained acknowledges having been trained and accepts the conditions of work onsite relating to these species.
- d) Intentional killing or collection of either plants or wildlife at construction sites is

prohibited. Discharging of firearms is prohibited on construction sites.

- e) Only agency-approved pesticides, herbicides, fertilizers, dust suppressants, or other potentially harmful materials shall be applied within the construction area, in accordance with relevant state and federal regulations.

[Mitigation Measure **BIO-6** - Grading/Planning]

**BIO-7:** Desert Tortoise Habitat-loss Mitigation. The Developer shall secure a letter from CDFG indicating that a "Take" permit is not required to mitigate loss of Desert Tortoise habitat. If a "Take" permit is required by CDFG, the developer shall fully comply with mitigation measures as required by CDFG [Mitigation Measure **BIO-7** - Grading/ Planning]

**BIO-8:** Desert Tortoise Pre-grading Mitigation. The developer shall prepare, submit for review and obtain approval of a letter agreeing to adhere to the following requirements: Developer shall employ the following desert tortoise protection measures:

- a) Install permanent tortoise-proof fencing along the perimeter of any potential areas of disturbance, prior to disturbance, to prevent tortoises from wandering onto the site. Proposed disturbance areas should be surveyed by a qualified tortoise surveyor using 5-meter clearance surveys prior to fence installation. A second clearance survey should be conducted immediately after the fence is installed to ensure there are no tortoises within the work area. Tortoise fencing consists of 1-inch wide by 2-inch tall hardware cloth that can also be permanently attached to any permanent chain-link fence to prevent adult and juvenile tortoises from entering the project site. Tortoise fencing shall be buried at least 12-inches below ground and 24-inches above ground. Installation guidelines are found at: ([http://www.fws.gov/ventura/speciesinfo/protocols\\_guidelines/](http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/); USFWS, 2005).
- b) Provide a trash abatement program with sealed trash containers on site to prevent unwanted tortoise predators such as ravens and coyotes.
- c) Provide biological construction monitoring during the installation of the tortoise fencing.
- d) Vehicular speeds shall be limited to 15 miles per hour on all project related access roads and work areas. Utilize existing roads, whenever possible, to minimize disturbance to potential tortoise habitat.
- e) Conduct 5-meter tortoise clearance surveys along any new or existing dirt access roads that will be used during the construction phase to identify areas of potential avoidance or areas where realignment of proposed access roads is preferred to minimize impacts.
- f) Provide a post-construction biological report of the results of the clearance surveys and biological monitoring efforts within 90 days to the resource agencies which documents any tortoise encounters and mitigation measures taken.
- g) Submit a California Natural Diversity Database (CNDDDB) form for any tortoises, carcasses and any other sensitive species encountered in order to provide the resource agency personnel and biological consultants with a better understanding of tortoise in this area.

[Mitigation Measure **BIO-8** - Grading/ Planning]

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Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
<b>V. CULTURAL RESOURCES - Will the project</b>				
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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 Paleontologic  Resources overlays or cite results of cultural resource review):

- a) **Less than Significant Impact.** A California Historical Resources Information System records search, as well as a field survey conducted by LSA (November 2010). The proposed Project is anticipated to have a less than significant impact to cultural resources. Accordingly, no mitigation under CEQA or avoidance of the isolate will be required.
- b) **Less than Significant Impact.** The proposed Project will not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 (see Section V (a) above). However, as a precautionary measure the developer shall consult with a qualified archaeologist in the event that buried cultural deposits are encountered during any phase of construction (e.g., grading, grubbing, or vegetation clearing). In the event of the discovery of buried cultural resources, project activities in the vicinity of the resources shall be temporarily halted, and a qualified archaeologist shall be consulted to assess the significance of the resource and to provide proper management recommendations.
- c) **No Impact.** Any disturbance to natural formations will be too small to be considered significant. Therefore, implementation of the proposed Project is anticipated to have no impact to a paleontological resource.
- d) **No Impact.** The project site is not located a known cemetery, and no human remains are anticipated to be disturbed during the construction phase. However, in accordance with applicable regulations, construction activities will halt in the event of discovery of human remains, and consultation and treatment will occur as prescribed by law.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
<b>VI. GEOLOGY AND SOILS - Will the project:</b>				
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 checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 181-B of the California Building Code (2001) creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

- a) **Less than Significant Impact.** The entire San Bernardino County area is particularly susceptible to strong ground shaking and other geologic hazards. However, the proposed Project site is not located within an Alquist-Priolo Earthquake fault zone. While the potential for onsite ground rupture cannot be totally discounted (e.g., unmapped faults could conceivably underlie the project corridor), the likelihood of such an occurrence is considered low due to the absence of known faults within the site.

The proposed Project will not include any habitable structures. Nonetheless, the design of any structures onsite will incorporate measures to accommodate projected seismic loading, pursuant to existing guidelines such as the "Greenbook" Standard Specifications for Public Works Construction (2006) and the International Code Council's (ICC) 2007 California Building Code (CBC). Specific standards that may be used for the proposed Project

include proper fill composition and compaction; anchoring (or other means of for securing applicable structures); and use of appropriate pipeline materials, dimensions and flexible joints. Based on the incorporation of applicable standards into project design and construction, potential project impacts associated with strong seismic ground shaking will be less than significant.

**ii) Less than Significant Impact.** The project site is within a seismically active region and is potentially subject to strong ground acceleration from earthquake events along major regional faults. The San Andreas Fault as a whole is capable of generating significant seismic activity but it has not been particularly active along the southern segment. The Hidalgo Fault, located in the project vicinity, is a right-lateral strike-slip fault 25 miles in length, with unknown rupture intervals and probable magnitudes between 6.4 - 7.1. The Pinto Mountain Fault, which is also in the vicinity of the proposed Project site is a left-lateral strike-slip fault between 45 and 56 miles in length, with uncertain rupture intervals and probable magnitudes of 6.5 - 7.5. However, based on the incorporation of applicable standards into project design and construction (see Section VI (a) (i)); potential project impacts associated with strong seismic ground shaking will be less than significant.

**iii) Less than Significant Impact.** Liquefaction is the phenomenon whereby soils lose shear strength and exhibit fluid-like flow behavior. Loose granular soils are most susceptible to these effects, with liquefaction generally restricted to saturated or near-saturated soils at depths of less than 50 feet. Other types of seismic-related ground failure include ground rupture (as discussed in Section VI.a.i), landslides (as discussed in Section VI.a.iv), dynamic ground subsidence (or settlement) and lateral spreading. The soils underlying the site include undifferentiated Quaternary alluvial soils emanating from the local Mesozoic granitic and gneissic rock exposures at the higher elevations. According to the UC Davis Soil Resource Laboratory, these soils are well-drained and are not susceptible to liquefaction. Furthermore, the proposed Project design and construction will incorporate a number of standard measures to address potential seismic-related liquefaction and related effects such as settlement and lateral spreading, including similar types of measures from the CBC and Greenbook standards as noted above in Section VI.a.ii. Based on the incorporation of applicable standards into project design and construction, potential project impacts associated with seismic-related liquefaction and settlement will be less than significant.

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

- b) **Less than Significant Impact.** No substantial grading or vegetation removal will occur for the installation of the proposed Project. It is expected that vegetation will be cleared for the footprints of the individual tracker units, but those will be situated above the ground at a maximum height of approximately eight feet. This allows the retention of some of the
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vegetation onsite, which will reduce wind speeds near ground level and result in less erosion.

- c) **Less than Significant Impact.** The mapped soil type-- undifferentiated Quaternary alluvial soils--appears to be conducive to the development of the proposed project. The surface soils are disturbed, have low strength characteristics and are highly compressible when saturated. The Project design and construction methods, including recompacting surface soils in the area of structure will stabilize the surface soils; thereby, reducing potential impacts of the mapped soils to a less than significant level.

The project area is relatively flat terrain where landslides have not historically been an issue. Furthermore, excavation associated with the proposed Project will extend to maximum depths of approximately five (5) feet, and will thus be limited to existing fill materials and alluvial deposits. Potential liquefaction (and related settlement and lateral spreading effects) and landslide impacts are discussed above in Sections VI.a.iii and VI.a.iv, respectively. Based on the described conditions and project design and construction methods, no significant impacts related to geologic instability are anticipated as a result of project implementation.

- d) **Less than Significant.** Expansive (or shrink-swell) behavior is attributable to the water-holding capacity of clay minerals and can adversely affect the structural integrity of facilities including underground pipelines. The onsite soils and other materials are generally granular and considered non-critically expansive. Therefore, impacts will be less than significant.
- e) **No Impact.** The project does not propose to use septic tanks or alternative wastewater disposal systems; therefore, no impacts are anticipated.
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<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
<b>VII GREENHOUSE GAS EMISSIONS - Will the project:</b>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

***SUBSTANTIATION:***

- a) **Less than Significant Impact.** The project with mitigation will not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. In September 2006 Governor Schwarzenegger signed the Global Warming Solutions Act (Assembly Bill 32), which was created to address the Global Warming situation in California. The Act requires that the greenhouse gas (GHG) emissions in California be reduced to 1990 levels by 2020. This is part of a larger plan in which California hopes to reduce its emissions to 80 percent below 1990 levels by 2050. This reduction shall be accomplished through an enforceable statewide cap on GHG emissions that shall be phased in starting in 2012 and regulated by the California Air Resources Board (CARB). With this Act in place, CARB is in charge of setting specific standards for different source emissions, as well as monitoring whether they are being met.

As discussed in Section III of this document, the proposed project's primary contribution to air emissions is attributable to construction activities. Project construction will result in greenhouse gas (GHG) emissions from construction equipment and construction workers personal vehicles traveling to and from the site. Construction-related GHG emissions vary depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel.

The primary emissions that will result from the proposed Project occur as carbon dioxide (CO<sub>2</sub>) from gasoline and diesel combustion, with more limited vehicle tailpipe emissions of nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>), as well as other GHG emissions related to vehicle cooling systems. Although construction emissions are a one-time event, GHG emissions such as CO<sub>2</sub> can persist in the atmosphere for decades.

Currently, neither the MDAQMD nor the County has established a quantitative threshold or standard for determining whether a project's GHG emissions are significant. In December 2008, SCAQMD adopted interim CEQA GHG significance thresholds of 10,000 metric tons of CO<sub>2</sub>e (MTCO<sub>2</sub>e) per year for stationary/industrial projects that include a tiered approach for assessing the significance of GHG emissions from a project (SCAQMD 2008). For the purposes of determining whether or not GHG emissions from a project are significant, SCAQMD recommends summing emissions from amortized construction emissions over the life of the proposed project, generally defined as 30 years, and operational emissions, and comparing the result with the established interim GHG significance threshold. While

the individual project emissions will be less than 10,000 MTCO<sub>2</sub>e/yr, it is recognized that small increases in GHG emissions associated with construction and operation of the proposed Project will contribute to regional increases in GHG emissions.

GHGs and criteria pollutants will realize co-beneficial emissions reduction from the implementation of measures discussed in Section III, *Air Quality*, as well as the project's conditions of approval, project design and construction features. Furthermore, the construction of this project will result in "green" electric power generation that will otherwise be produced at a traditional fossil fuel burning plant, which generate considerably more GHG emissions. For these reasons, it is unlikely that this project will impede the State's ability to meet the reduction targets of AB32.

- b) **Less than Significant Impact with Mitigation.** The proposed Project with mitigation will not significantly conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Currently, neither the MDAQMD nor the County has adopted any Plan, policy or regulation intended to reduce greenhouse gas emissions. (see also VII(a)).

### Mitigation Measures

**GHG-1:** GHG/Construction Mitigation. The developer shall submit for review and approval to County Planning a letter agreeing to include the following as conditions of all construction contracts/subcontracts to reduce impacts to GHG:

- a) Select the construction equipment used on site based on low emissions factors and high energy efficiency. All diesel/gasoline-powered construction equipment shall be replaced, where possible, with equivalent electric or CNG equipment.
  - b) Ensure that construction grading plans include a statement that all construction equipment will be tuned and maintained in accordance with the manufacturer's specifications.
  - c) Confirm that the construction grading plans include a statement that all construction equipment (including construction vehicles and electric generators) shall be shut off by work crews when not in use and shall not idle for more than five minutes. During smog season (May through October), the overall length of the construction period shall be extended in order to decrease the size of the area prepared each day. This will minimize vehicles and equipment operating at the same time.
  - d) Use low-sulfur fuel for stationary equipment. (MDAQMD Rule 431).
  - e) Schedule construction activities so as to not interfere with peak-hour traffic and minimize obstruction of through traffic lanes adjacent to the site. Queuing of trucks on and off site shall be firmly discouraged and not scheduled. A flagperson shall be retained to maintain safety adjacent to existing roadways.
  - f) Comply with MDAQMD Rule 1113 on the use of architectural coatings. Emissions associated with architectural coatings will be reduced by complying with these rules and regulations, which include using pre-coated/natural colored
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building materials, water-based or low volatile organic compound (VOC) coating, and coating transfer or spray equipment with high transfer efficiency

- g) Recycle and reuse construction and demolition waste (e.g. soil, vegetation, concrete, lumber, metal, and cardboard) in accordance with the policies and procedures of County Solid Waste Management.
- h) The construction contractor shall support and encourage ridesharing and transit incentives for the construction crew and educate all construction workers about the required waste reduction and the availability of recycling services.

[Mitigation Measure **GHG-1** - Grading/Planning]

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

**SUBSTANTIATION:**

- a) **Less than Significant Impact.** Implementation of the proposed Project will not entail the routine transport, use or disposal of hazardous materials, with the potential exception of short-term construction-related substances such as fuels, lubricants, adhesives, solvents and asphalt wastes. The potential risk associated with the accidental discharge during use and storage of such construction-related hazardous materials during project construction is considered low because the handling of any such materials will be addressed through the implementation of Best Management Practices (BMPs) pursuant to the intent of the National

Pollutant Discharge Elimination System (NPDES) General Construction Permit.

- b) **Less than Significant Impact.** The proposed Project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. With the exception of construction-related hazards such as fuels, lubricants, adhesives, solvents and asphalt wastes, the proposed Project will not generate or require the use or storage of significant quantities of hazardous substances. The photovoltaic panels used in the proposed Project are environmentally sealed collections of photovoltaic cells that require no chemicals and produce no waste materials. There is no a battery backup component, thus minimizing the need for transporting, using, or disposing of the hazardous materials that may be associated with the project. Furthermore, standard operating procedures will prevent the use of these materials from causing a significant hazard to the public or environment.
  - c) **No Impact.** There are no existing or proposed schools within one-quarter mile of the proposed Project site. Additionally, operation and maintenance of the project will not produce hazardous emissions. No significant adverse impacts are anticipated and therefore, no mitigation measures are required.
  - d) **No Impact.** The Project site is not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The proposed Project shall not create a significant hazard to the public or the environment. No impacts to this topic shall occur as a result of implementing the proposed Project and, therefore, no mitigation measures are required.
  - e) **No Impact.** The proposed Project area is not located within an airport land use plan and it is not within two miles of a public airport or public use airport. The nearest public airport is the Hi Desert airport located approximately six miles to the southwest of the project area.
  - f) **No Impact.** The proposed Project area is not located within the vicinity of a private airstrip; therefore, it will not result in a safety hazard for people residing or working in the project area. The nearest private airport is the Cones Field Holiday Ranch Airport, which is located approximately six miles to the southeast of the project area.
  - g) **No Impact.** Activities associated with the proposed Project will not impede existing emergency response plans for the project site and/or other land uses in the project vicinity. The Project will not result in any road closures that might have an effect on emergency response or evacuation plans in the vicinity of the project site. In addition, all vehicles and stationary equipment will be staged off public roads and will not block emergency access routes. Accordingly, implementation of the proposed Project will not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.
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- h) **Less than Significant Impact.** Any development, along with the associated human activity, in previously undeveloped areas increases the potential of the occurrence of wildfires in the region. Comprehensive safety measures that comply with federal, state, and local worker safety and fire protection codes and regulations will be implemented for the proposed Project and will minimize the occurrences of fire due to project activities during construction and for the life of the project. Therefore, less than significant impacts are anticipated.
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<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
<b>IX HYDROLOGY AND WATER QUALITY - Will the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which will not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that will result in substantial erosion or siltation on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structure which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SUBSTANTIATION:**

- a) **Less than Significant Impact.** According to the Preliminary Water Quality Management Plan (Arrow Engineering Services, Inc [AESI] 2011), the proposed Project will not violate any water quality standards or waste discharge requirements . No waters or habitats that fall under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), California Regional

Water Quality Control Board (RWQCB), or the California Department of Fish and Game (CDFG) are found on the proposed Project area.

Potential water quality impacts from the proposed Project could be associated with short-term (construction-related) erosion/sedimentation and hazardous material use/discharge. Solar panels will be elevated above the existing grade for ease of maintenance and the rotational need of the panels themselves to be directed towards the sun. The panels will be supported by a steel structure, which will either be supported by individual steel columns or concrete footings in the ground. The ground shall be minimally graded for drainage only. Internal access roads for maintenance vehicles are planned to be constructed of recompacted native soils. There will be up to 14 concrete pads for the installation of electrical equipment. These pads will be approximately 12 feet wide by 24 feet long. Crushed rock will be placed for a distance of five feet around the concrete pads to minimize any possible erosion caused by storm water falling on the pads or equipment. The areas not consumed by the solar panel structures, electrical equipment pads, access road, and parking lot will be left as native soil in the present condition or graded to improve and control surface drainage.

Furthermore, potential erosion/sedimentation and hazardous materials impacts will be avoided or reduced below a level of significance through conformance with applicable elements of the NPDES Municipal Stormwater General Construction Permit. As part of the permit requirements, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared for the project. The SWPPP provide detailed descriptions of the various structural and nonstructural water quality management measures to be used, and may include: construction BMPs; downstream water quality monitoring, use of permanent source control BMPs; and treatment control BMPs, which may include installation of filters, straw bale barriers, silt fences, stock pile coverings, and sediment basins. Maintenance of the proposed Project will include cleaning, drive motor repair, tracker repair, electrical connection repair, and panel replacement. Cleaning is expected to be conducted annually and water used will not contain any cleaning agents or other additives.

- b) **Less than Significant Impact.** The proposed Project will not entail the use of groundwater and; thus will not deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level. Water will be trucked in from Twentynine Palms Water District or other municipal source and sprayed on the panels from a water truck. Most of the ground within the proposed Project area will not be covered with impermeable material, so water percolation and groundwater recharge will not be significantly impacted by the implementation of the project.
  
  - c) **Less than Significant Impact.** The proposed Project will have a less than significant impact on the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that will result in substantial erosion or siltation on- or offsite. The Proposed project's hydrology study concluded that due to the site's sheet flow characteristics, the lack of any defined channels, and the relatively small local upstream tributary area, the nature of the proposed Project will have no appreciable effects
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to the current runoff rates, drainage patterns, or quantity of runoff (AESI 2011).

Drainage across the site is currently characterized by sheet flow and the completed site will also drain by surface flows. Storm water leaving the site flows to the Northeast, eventually terminating at Mesquite approximately 1.5 miles away. (AESI 2011). The existing drainage patterns shall not be significantly altered to install the selected technology. Minor grading shall occur to allow the installation of PV panels across this existing feature and to install aggregate base access roads. The surface of the roads shall generally be elevated slightly above the existing grades, but not so much as to affect existing drainage patterns. A road shall be installed generally around the perimeter of the site. Additionally, several interior roads shall be constructed to enhance access within the PV field.

Furthermore, according to the General Biological Resources Assessment for the proposed project, no waters or habitats that fall under the jurisdiction of the ACOE, California RWQCB, or CDFG are found on the proposed Project area. No indicators of hydrologic activity (topographical or geological), hydric soils, or hydrophytic vegetation were observed onsite. In addition, no "blueline" streams are found on the Sunfair USGS 7.5-minute quadrangle in the vicinity of the project area.

At locations where foundations are installed, it is expected that minor cuts will be required to place the tracker foundations on a level pad. It is expected that the cut material shall be placed around the pre-cast foundation in order to divert small localized flows away from the foundation and prevent undermining.

There shall be a slight increase in imperviousness of the soil onsite due to grading and construction activities. The root mass of the existing vegetation onsite is proposed to be left as-is to assist in erosion control and to maintain the existing soil characteristics (i.e. infiltration rates). Minor vegetation removal shall take place at the areas where the concrete pads for the trackers shall be placed and for gravel road installation. The addition of the foundations and inverter pads shall create a very slight increase in area that can be considered impervious. However, these foundations are small in size and located throughout the site. Additionally, the access roads are expected to slightly increase the imperviousness of the area where roads are constructed, but again, the total area of these roads is small in comparison with the entire site and the roads do allow some level of infiltration.

During operation, the tracker panels shall drain freely to the ground any rainwater that hits them. Based on the volume of water falling from each panel, the height of the fall, and the soil conditions, it is not expected that erosion beyond an immediate micro level shall occur. It is expected that water shall fall from the PV panels and pond at a drip point before infiltrating or gradually migrating into the existing drainage patterns. If, over time, minor erosion is noted at the drip points, small gravel pads can be added to help dissipate the energy of the falling water. If, over time, minor erosion is noted near the foundations, minor grading can occur to restore support for the individual foundations, and keep surface flows from undermining the foundations in future storm events.

- d) **Less than Significant Impact.** The proposed Project will have a less than significant impact on the existing drainage pattern of the site or area, including through the alteration of
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the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or offsite (see discussion in Item IX (c)).

- e) **Less than Significant Impact.** The proposed Project will not create or contribute runoff water which will exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff (see discussion in Item IX (a)).
  - f) **Less than Significant Impact.** The proposed Project will not otherwise substantially degrade water quality (see discussion in Item IX (a)).
  - g) **No Impact.** The proposed Project will not 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. The project proposes no habital structures. The site is designated Flood Zone D, which are characterized as areas in which flood hazards are undetermined but possible.
  - h) **No Impact.** The proposed Project will not place within a 100-year flood hazard area structures that will impede or redirect flood flows. [See above discussion IX (g)].
  - i) **No Impact.** The Project will not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, because the project site is not within any identified path of a potential inundation flow that might result in the event of a dam or levee failure or that might occur from a river, stream, lake or sheet flow situation.
  - j) **No Impact.** The Project site will not be subject to inundation by seiche, tsunami, or mudflow. A tsunami is a series of ocean waves generated in the ocean by an impulsive disturbance. Due to the inland location of the proposed project, tsunamis are not considered a threat. A seiche is an oscillating surface wave in a restricted or enclosed body of water generated by ground motion, usually during an earthquake. Inundation from a seiche can occur if the wave overflows a containment wall or the banks of a water body. No impacts are expected to occur because the project is not adjacent to any marine or inland water bodies. The soils in the project area are moderately well-drained, the terrain is relatively flat, and mudflows have not historically been an issue in the proposed Project area.
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<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
<b>X. LAND USE AND PLANNING - Will the project:</b>				
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:***

- a) **No Impact.** The project will not physically divide an established community, because there are no established residential communities present in the Project area. The proposed Project area is located in an unincorporated part of the County that has sparse residential development and will occupy an area that is currently vacant.
- b) **Less than Significant Impact.** The current General Plan land use designation for the proposed Project area is Rural Living (RL-5). The RL-5 land use district allows development of solar electrical power generation on sites greater than 20 acres. Electric power generation is allowed on the proposed Project site subject to a Conditional Use Permit. No General Plan Amendment is required; therefore, impacts are considered less than significant.
- c) **No Impact.** The proposed Project does not conflict with any applicable habitat conservation plans or natural community conservation plans.

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

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

- a) **No Impact.** The USGS Mineral Resources Spatial Data Mapper was used to determine that no metallic or nonmetallic mineral resources have been mapped on the proposed Project area. In addition, although mining claims have been registered for some of the areas surrounding the project area, mostly for rock, gravel, concrete, and sand, no active mines or mining claims are located on or in the immediate vicinity of the project site. Implementation of the proposed Project will not result in the loss of any known mineral resources on the proposed site.
- b) **No Impact.** The proposed Project will not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan (see discussion in Item XI (a)).

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

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

a) **Less than Significant with Mitigation Incorporated.** With the exception of a few scattered residences, the proposed Project is adjacent to mostly undeveloped and/or vacant lands. For the existing residents in the area, noise generated from the proposed Project could potentially temporarily generate noise levels in excess of standards established in the County General Plan or Noise Ordinance, or applicable standards of other agencies. Specifically, construction of the proposed Project may potentially create some elevated short-term construction noise impacts from construction equipment; however, these activities shall be limited to daytime hours and shall comply with the mitigation measures below.

Noise generation from construction equipment/vehicle operation will be localized, temporary, and transitory in nature; therefore, no significant impacts will be anticipated. Operation of the proposed Project will not generate audible levels of noise or perceptible levels of vibration in the surrounding community. Onsite noises will be limited to the fractional horse power drive motors that rotate the photovoltaic panels on the single-axis tracking system and maintenance activities (including annual cleaning, drive motor repair, tracker repair, electrical connection repair, and panel replacement). Further, the project will not include additional dwellings or other development, nor will it have the potential to generate any additional vehicle trips after construction is completed. Therefore, impacts are

anticipated to be less than significant.

- b) **Less than Significant Impact.** It is not anticipated that the proposed Project will expose persons to or generate excessive groundborne vibration or groundborne noise levels except intermittently during construction. During operation, the proposed Project equipment will not result in any groundborne vibration. No additional mitigation will be required.
- c) **No Impact.** The proposed Project will not create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Specifically, the project will result in temporary noise increases during construction but will not create any substantial permanent increase in the ambient noise levels due to the operation activities consisting of routine maintenance vehicles and equipment onsite with hardly discernible noises.
- d) **Less than Significant with Mitigation Incorporated.** The proposed Project is adjacent to mostly undeveloped and/or vacant lands; therefore, noise generated from the proposed Project could potentially result in some temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the projects. Specifically, construction of the proposed Project may potentially create some elevated short-term construction noise impacts from construction equipment; however, these activities shall be limited to daytime hours and shall comply with the mitigation measures N-1 through N-8 (see Section XII (a)).
- e) **No Impact.** The proposed Project area is not located within an airport land use plan and it is not within two miles of a public airport or public use airport. The nearest airports are the Hi Desert Airport, which is located approximately six miles to the southwest of the project area and the Marine Corps Air Combat Center to the northeast. The facility is primarily unmanned and noise impacts are not a concern.
- f) **No Impact.** The proposed Project area is not located within the vicinity of a private airstrip. The nearest airport is the privately-owned Cones Field Airport, which is located approximately six miles to the southeast of the project area. Aircraft using this airport are limited to a single engine, which limits the noise produced during takeoffs and approaches to the airport that may include the airspace over the proposed Project area.

### **Mitigation Measures**

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

- a) Noise levels of any project use or activity shall be maintained at or below adopted County noise standards (SBCC 83.01.080). The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
  - b) Exterior construction activities shall be limited between 7 a.m. and 7 p.m. There shall be no exterior construction activities on Sundays or National Holidays.
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- c) Interior construction activities may occur on any day and any time provided they comply with the County noise standards. (SBCC 83.01.080).
  - d) Construction equipment shall be muffled per manufacturer's specifications. Electrically powered equipment shall be used instead of pneumatic or internal combustion powered equipment, where feasible.
  - e) All stationary construction equipment shall be placed in a manner so that emitted noise is directed away from sensitive receptors nearest the project site.  
[Mitigation Measure **N-1** - Grading/Planning]
-

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

***SUBSTANTIATION:***

- a) **No Impact.** The proposed Project will not induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). No houses are being proposed as part of the proposed Project for construction workers or those that will be employed during operation of the facility. Construction is anticipated to take approximately 4 months (16 weeks), with a maximum of 20 construction workers per day. During operation, the project site will be un-manned. Accordingly, the proposed Project will not result in any impacts to housing or related infrastructure, nor will it require construction of additional housing. No significant adverse impacts are anticipated and, therefore, no mitigation measures are required.
- b) **No Impact.** The proposed Project will not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere because the project site is currently undeveloped. No significant adverse impacts are anticipated and, therefore, no mitigation measures are required.
- c) **No Impact.** The proposed Project will not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere because the project site is currently undeveloped. No significant adverse impacts are anticipated and, therefore, no mitigation measures are required.

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

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

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

***SUBSTANTIATION:***

a) **Fire - Less than Significant Impact.** The proposed Project area is serviced by the Twentynine Palms Fire Department located approximately 0.6 mile to the north of the project site. The proposed Project will not substantially impact service ratios, response times, or other performance objectives related to fire protection. However, during construction, some public services including fire protection may be required but these will be short-term requirements and will not require increases in the level of public service offered or affect these agencies' response times. The project will incorporate perimeter and internal access driveway systems that are accessible to emergency equipment, including knox locks on the gates for 24-hour access.

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

**Police Protection – Less than Significant Impact.** The proposed Project area and other unincorporated portions of the County are served by the San Bernardino County Sheriff's Department. The proposed Project will not impact service ratios, response times, or other performance objectives related to police protection. However, during construction, some

public services including police protection may be required but these will be short-term requirements and will not require increases in the level of public service offered or affect these agencies' response times. In order to protect against theft and vandalism the proposed Project will employ its own security patrol crews to protect the project site during construction and operation of the project. The project will incorporate up to eight foot tall security fencing and security camera systems.

**Schools – No Impact.** Long-term operation of the proposed facilities will place no demand on school services because it will not involve the construction of facilities that require such services (e.g., residences) and will not involve the introduction of a temporary or permanent human population into this area.

**Parks – No Impact.** Long-term operation of the proposed facilities will place no demand on parks because it will not involve the construction of facilities that require such services (e.g., residences) and will not involve the introduction of a temporary or permanent human population into this area.

**Other Public Facilities – No Impact.** The proposed Project will not result in the introduction and/or an increase in new residential homes and the proposed Project will not involve the introduction of a temporary or permanent human population into this area. Based on these factors, the proposed Project will not result in any long-term impacts to other public facilities.

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

***SUBSTANTIATION:***

- a) **No Impact.** The proposed Project will not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated. No new residences or recreational facilities will be constructed as part of the proposed Project and the proposed Project will not induce population growth in adjacent areas. No significant adverse impacts are anticipated and, therefore, no mitigation measures are required.
  
- b) **No Impact.** The proposed Project does not include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. No new residences or recreational facilities will be constructed as part of the proposed project. The proposed Project will not induce population growth in adjacent areas and will not increase the use of recreational facilities in surrounding neighborhoods. No significant adverse impacts are anticipated and, therefore, no mitigation measures are required.

**XVI. TRANSPORTATION/TRAFFIC - Will the project:**

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and greenways, pedestrian and bicycle paths, and mass transit. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access?  | <input type="checkbox"/> | <input type="checkbox"/> | <input 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:**

- a) **Less-Than-Significant Impact.** The proposed Project will not conflict with any applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and greenways, pedestrian and bicycle paths, and mass transit.
- b) **Less than Significant Impact.** The proposed Project will not conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. The proposed Project will have a less than significant increase in traffic in relation to the existing traffic load and capacity of the street system. At the initiation of project construction, equipment that may include water trucks, backhoes, trenchers, and scrapers, will be mobilized to the project site using Indian Trail. This equipment will then be stored onsite for the duration of construction and used as construction progresses. **Table XVI-1** summarizes anticipated construction traffic for the proposed Project.

<b>Table XVI-1: Summary of Project Construction Traffic</b>		
<b>Activity</b>	<b>Total/Per Unit</b>	<b>Total /Construction Duration ( 15 Weeks [100 days])</b>
Worker Commute	20 trips/day	Up to 2,000 Trips
Material Delivery and supplies	10 trips/day	Up to 1,000 Trips
Truck Deliveries	2-3 trips/day; up to 50 trips/month	Up to 300 Trips
<b>33 Trips/Day</b>		<b>Up to 3,300 Total Trips</b>

Impacts to local traffic on Indian Trail due to mobilizing construction equipment and delivery of machinery will be short-term in nature. Daily increases to traffic volumes during construction will primarily result from project personnel commuting to and from the work site. Based on the number of construction trips anticipated for the proposed project (up to 33 trips per day), the volume increase will be negligible compared to the typical traffic volume. Signage and flagman will be utilized if needed to decrease delays on Indian Trail.

During project operation, the project will be un-manned; as a result, minimal additional traffic (approximately 18 vehicle trips per month) will be generated by facility operation for periodic maintenance. As shown in **Table XVI-2**, total annual traffic (up to 216 vehicle trips) would include traffic associated with panel washing (maximum 96 vehicle trips per year) and maintenance (2 vehicle trips per visit, up to 5 visits per month, for a maximum of 120 vehicle trips per year). Additional vehicles delivering the machinery that will be used during the lifetime of project will also be necessary.

<b>Table XVI-2: Summary of Project Operation Traffic</b>		
<b>Activity</b>	<b>Total/Per Unit</b>	<b>Total /Year</b>
Panel Washing (up to 4 times/yr)	14 trips/wash	Up to 96 Trips
Maintenance (Up to 5 visits/month)	2 trips/visit	Up to 120 Trips
		<b>Up to 216 Total Trips</b>

Based on the number of operation and maintenance traffic anticipated for the proposed Project, the volume increase will be negligible to the typical traffic volume on Indian Trail. In addition, the Project developer will also comply with the mitigation measures below to ensure that Project impacts are less than significant.

- c) **No Impact.** The proposed Project will not affect air traffic patterns. The nearest airports are the Hi Desert and Cones Field airports, which are located approximately six miles to the southwest and southeast of the proposed Project area, respectively. The Marine Corps Ground Combat Center is north west of the project site. The the only substantial aboveground modifications will be the solar arrays that will have a maximum height of approximately six feet and an electrical equipment structure with a maximum height of ten feet.

The solar reflectivity of the photovoltaic panels used in the proposed Project will be low due to the material used to manufacture solar panels. The project's contribution to the reflectivity within the area and the resultant potential negative effect on air traffic patterns is less than significant. Furthermore, no significant lighting is proposed.

- d) **No Impact.** The proposed Project will not include design features that will affect traffic safety, nor will it cause incompatible uses (such as farm equipment) on local roads. In addition, no new roads are being proposed as part of this project; consequently, there shall be no impacts. The gates into the facility will be inset to allow vehicle stacking at the gate that is off the traveled roadway.
  - e) **Less than Significant Impact.** The proposed Project will not result in inadequate emergency access to the project area. During project construction, all vehicles will be parked off public roads and will not block emergency access routes. The proposed Project will not result in any closures of Indian Trail, Morongo Road, or Valle Vista Road that might have an effect on emergency access in the vicinity of the Project site.
  - f) **No Impact.** The proposed Project will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of safety of such facilities. No alternative transportation policies, plans, or programs have been designated for the proposed Project area.
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<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
<b>XVI. UTILITIES AND SERVICE SYSTEMS - Will the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded, entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

***SUBSTANTIATION:***

- a) **No Impact.** The proposed Project will not exceed wastewater treatment requirements of the Colorado River RWQCB. The project will discharge uncontaminated water that is used to clean the solar panels, with no toxicants or cleaning agents used. The County General Plan defers to applicable Regional water control requirements, and the proposed project's water discharge does not require treatment or permitting according to the regulations of the Colorado River RWQCB.
- b) **No Impact.** The proposed Project will not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which will cause significant environment effects.
- c) **No Impact.** The proposed Project will not require the construction or expansion of storm water drainage facilities. The proposed Project will discharge uncontaminated water that is used to clean the solar panels, with no toxicants or cleaning agents used. It is assumed that the insubstantial quantity of discharged water generated by cleaning will be absorbed

into the soils onsite. Soils on the project area are moderately well-drained and are suitable for most type of development. Most of the ground within the proposed Project area will not be covered with impermeable material.

- d) **Less than Significant Impact.** According to the Water Supply Assessment prepared for the the proposed Project, it is anticipated that project construction would require approximately 2,000,000 (6.14 acre-feet) of water (IRM 2011).

In addition, approximately 27,720 gallons of water will be required to wash the panels up to four times per year for a total of 110,880 gallons [0.34 AF] of water used per year. Ongoing maintenance of the site may also require dust suppression. The project proposes to use a soil binder to maintain dust control if needed. It is expected that this may require one application every year but may be reduced to every two to three years based on the site conditions. To apply the soil binder, 25,000 gallons (0.08 AF) per year of water would be required. The Proposed Project will have no structural buildings located onsite. There would be no onsite staff, and so no on-site water or sewer hookups would be required, thereby eliminating maintenance of water and sewer utilities. The Twentynine Palms Fire Department has determined that no on-site fire suppression system infrastructure is required for the proposed Project. The total projected water use for maintenance is approximately 135,880 gallons (0.42 AF) per year..

The amount of water required during construction (approximately 7.37 AF) and the ongoing annual use of 0.53 AF falls within the available and projected water supplies for normal, single-dry, and multiple-dry years through the year 2030 as described in the Twentynine Palms Water District's 2005 UWMP (IRM 2011). Water will be trucked in from Twentynine Palms Water District during construction and operation. According to the Twentynine Palms Water District, the District offers Pay Meter Stations that are open to the public that allows customers, such as the Developer, to purchase water from the station and haul to areas both inside and outside the District boundary.

- e) **No Impact.** The proposed Project will not require or result in the construction of new wastewater treatment facilities or the expansion of existing wastewater treatment facilities. Accordingly, no impacts are anticipated from implementation of the proposed project.
- f) **Less than Significant Impact.** Less than significant impacts related to landfill capacity are anticipated from the proposed project. The proposed Project largely consists of short-term construction activities (with short-term waste generation limited to minor quantities of construction debris) and will not result in long-term solid waste generation. Solid wastes associated with the proposed Project will be disposed as appropriate in local landfill or at a recycling facility.

The panels and tracking system shall eventually need to be disposed (decommissioned). Most parts of the proposed PV system are recyclable. Panels typically consist of silicon, glass, and an aluminum frame. Tracking systems (not counting the motors and control systems) typically consist of steel and concrete. All of these materials can be recycled. Concrete from deconstruction shall be recycled through local recyclers. Metal and scrap equipment and parts that do not have free flowing oil will be sent for salvage. Equipment

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containing any free flowing oil shall be managed as hazardous waste and shall be evaluated before disposal at a properly permitted disposal facility. Oil and lubricants removed from equipment shall be managed as used oil and disposed in accordance with applicable State hazardous waste disposal requirements.

- g) **Less than Significant Impact.** The proposed Project will comply with all federal, state, and local statutes and regulation related to solid waste. The project will consist of short-term construction activities (with short-term waste generation limited to minor quantities of construction debris) and thus will not result in long-term solid waste generation. Solid wastes produced during the construction phase of this project, or during future decommission activity, will be disposed of in accordance with all applicable statutes and regulations. Accordingly, no significant impacts related to landfill capacity are anticipated from the proposed project.

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

**SUBSTANTIATION:**

- a) **Less than Significant Impact with Mitigation Incorporated.** Implementation of the proposed Project, with mitigation, will not degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife populations to drop below self sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

Refer to *Section 1, Aesthetics*, where the visual resources are discussed. Potential impacts related to new source of substantial light or glare, which will adversely affect day or nighttime views in the area are mitigated by implementation of mitigation measures *AES-1, AES-2 and AES-3*.

Refer to *Section III, Air Quality*, where short-term (construction) air quality impacts are discussed. Implementation of mitigation measures *AQ-1, AQ-2 and AQ-3* would further reduce air quality impacts to a less than significant level.

Refer to *Section IV, Biological Resources*. The project has the potential to affect, either directly or through habitat modifications, 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. Implementation of mitigation measures *BIO-1 through BIO-8* will reduce potential impacts to a level considered less than significant.

Refer to *Section V, Cultural Resources*. The project is anticipated to have a less than significant impact on cultural resources. A Cultural Resource Assessment was



completed which determined the project would have no impacts.

Refer to *Section VII, Greenhouse Gas Emissions*, where construction-related GHG emissions are addressed. Mitigation measure *GHG-1* would reduce potential emissions to a level less than significant.

Refer to *Section XII, Noise*, where potential noise impacts are addressed. Implementation of mitigation measure N-1 would reduce potential impacts to a less than significant level.

- b) **Less than Significant Impact.** Cumulative impacts are defined as two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. The proposed project's impacts are considered cumulatively less than significant when considered in conjunction with related past, present, and reasonably foreseeable or probable future developments in the area.
  - c) **Less than Significant Impact.** The incorporation of design measures, County policies, standards, and guidelines will ensure that there will be no substantial adverse effects on human beings, either directly or indirectly. Impacts of the proposed Project will be less than significant.
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## MITIGATION MEASURES

(The following mitigation measures, which are also included within the Conditions of Approval and coupled with the required Condition Compliance Release Forms (CCRF) shall serve as the Mitigation Monitoring and Reporting Program for this project.)

## AESTHETICS

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

San Bernardino County Ordinance No. 3900 regulates glare, outdoor lighting, and night sky protection. Nighttime lighting associated with the proposed Project will be subject to County approval and compliance with San Bernardino County requirements. Specifically, lighting at the proposed facility will be installed at access gates and electrical equipment pads for safety, security or operational purposes. Lighting will be motion-activated and directed toward the ground from low elevation <14 ft) poles. All lights will be shielded so that there is no upward directed light.

Also, a Lighting Plan will be development to ensure that there is no lighting overspill. All light standards shall be shown on a dimensioned lighting plan. Manufacturer's specifications and standards shall be provided for each type of lighting device. The light intensity shall be plotted on a dimensioned plan and no overspill beyond project boundaries shall be allowed.

**The following mitigation measures are required as conditions of project approval to further reduce potential lighting impacts to a level below significant. The required mitigation measures are:**

### Mitigation Measures:

**AES-1:** Lighting Requirements. The area of illumination from any lighting shall be confined to be within the site boundaries and to minimize impacts to night sky views from surrounding properties. The glare from any luminous source, including on-site lighting shall not exceed one-half (0.5) foot-candle at property line. On-site lighting shall be fully shielded, diffused, or directed in a manner to avoid glare directed at adjacent properties, roadways or any light spill into any wildland areas surrounding the site that might affect nocturnal animals. No light shall project onto adjacent roadways in a manner that interferes with on-coming traffic. All lighting shall be limited to that necessary for maintenance activities, security and safety purposes.  
[Mitigation Measure **AES-1** General Requirements/Planning]

**AES-2.** Lighting Plan. The developer shall submit for review and obtain approval from County Planning in coordination with Building and Safety of a dimensioned lighting (photometric) plan. Exterior lighting shall be kept to the minimum required for

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safety and shall support the preservation of night sky views. The lighting plan shall include the following:

- a) The design of on-site lighting shall confine the area illumination to the site boundaries and in a manner to avoid glare to adjacent properties and to motorists on adjacent roadways.
    - b) All lighting shall not exceed one-half (0.5) foot-candle at the property line.
    - c) The Plan shall show the type, height, and location of all outdoor lights.
    - d) All lighting shall be hooded, shielded, or directional in nature so that it does not extend beyond the property boundary and is directed downward.
    - e) The Plan shall utilize dimmers, photocells and motion detectors to reduce all lighting, save energy and reduce night-sky light pollution.
- [Mitigation Measure AES-2 Building Permits/ Planning]

**AES-3.** Lighting Installed. Any installed lighting shall be in accordance with the approved lighting plan, as confirmed by an on-site inspection. [Mitigation Measure AES-3 Final Inspection/ Planning]

## **AIR QUALITY**

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

- a. Equipment/vehicles shall not be left idling for period in excess of five minutes
  - b. Engines shall be maintained in good working order to reduce emissions
  - c. Onsite electrical power connections shall be made available where feasible
  - d. Ultra low-sulfur diesel fuel shall be utilized
  - e. Electric and gasoline powered equipment shall substituted for diesel powered equipment where feasible
  - f. Signs shall be posted requiring all vehicle drivers and equipment operators to turn off engines when not in use.
  - g. In addition, all on-road diesel trucks shall not idle more than five minutes per truck trip or per day on the project site.
  - h. All transportation refrigeration units (TRU's) shall be provided electric connections.
- [Mitigation Measure **AQ-1** - General Requirements/Planning]

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

- a. Exposed soil shall be kept continually moist through watering to reduce fugitive dust during all grading/construction activities. (Minimum twice daily).
  - b. Street sweeping shall be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles.
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- c. 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.
- d. Construction Vehicle tires shall be washed prior to leaving the project site.
- e. All trucks hauling dirt away from the site shall be covered.
- f. 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 cease until wind speeds no longer exceed 25 mph.
- g. Storage piles that are to be left in place for more than three working days shall either be sprayed with a non-toxic soil binder, covered with plastic or revegetated. [Mitigation Measure **AQ-2** - Grading/Planning]

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

## **BIOLOGICAL RESOURCES**

### Avoidance Measures:

**BIO-1:** Burrowing Owl Avoidance. The project proponent should evaluate whether a project design modification is feasible. If burrowing owl habitat avoidance is feasible, a minimum of 6.5 acres of foraging habitat, calculated at a 100 meter foraging radius, should be maintained per pair or territory. Ideally, the foraging habitat would be maintained in a conservation easement. If avoidance is feasible, no disturbance should occur within 50 meters of occupied burrows during the non-breeding season (September 1 – January 31) or within 75 meters during the breeding season (February 1 – August 31). [Mitigation Measure **BIO-1** - Grading/Planning]

### On-Site Mitigation Measures for Unavoidable Impacts:

**BIO-2** Burrowing Owl Nesting. If project design modification is not feasible, occupied burrows should not be disturbed during the nesting season (February 1 to August 31) unless a qualified biologist has determined the owls are not breeding or that all juvenile owls are foraging independently. [Mitigation Measure **BIO-2** - Grading/Planning]

**BIO-3** On-site mitigation. Acquire on-site mitigation lands at no less than 6.5 acres per pair or single bird. The lands should be preserved in a conservation easement. Due to the presence of one territory, the minimum area needed would be 6.5 acres. When the destruction of occupied burrows is unavoidable, existing burrows within mitigation lands should be enhanced or enlarged or created (by installing artificial burrows) in a ratio of 1:1 in the on-site mitigation lands. Mitigation lands should be

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fenced to prevent unwanted canid predators. Fencing would also provide potential perch sites for owls; prevent trespassers and OHV use in the conservation area. The project sponsor should provide funding for long-term management and monitoring of protected lands. [Mitigation Measure **BIO-3** - Grading/Planning]

Off-site Mitigation Measures for Unavoidable Impacts:

**BIO-4** **Burrowing Owl off-site mitigation.** If on-site mitigation is not feasible, off-site habitat compensation for loss of burrowing owl nesting and foraging habitat should be acquired through a local conservation/land management group and permanently protected at the following ratios:

- d) Replacement of occupied habitat with occupied habitat at 1.5 times 6.5 acres per pair or single bird;
- e) Replacement of occupied habitat with habitat contiguous with occupied habitat at 2 times 6.5 acres per pair or single bird; and/or
- f) Replacement of occupied habitat with suitable unoccupied habitat at 3 times 6.5 acres per pair or single bird.

[Mitigation Measure **BIO-4** - Grading/Planning]

Passive Owl Relocation Measures:

**BIO-5** **Passive Relocation Measures.** Prior to eviction, the project proponent should retain a qualified burrowing owl biologist to band the owls to aid in re-sighting efforts, post-eviction. Owls should be banded with a unique alpha-numeric color band to aid in re-sighting and relocation efforts.

- If avoidance is not an option, passive owl relocation should occur, after August 31<sup>st</sup>, over a two week period to acclimate the owls to the new site. Passive relocation involves installing one-way doors on active burrows to allow owls to “self-evict”. The doors are installed for two days. After two days, the burrows are excavated and any owls remaining inside the burrows are allowed to escape. The site is monitored for one week to determine the status of the burrowing owls.
- A monitoring plan should be developed that evaluates the methodology of the relocation efforts, success criteria, re-sighting efforts and habitat enhancement and management of the mitigation lands.
- An annual report that evaluates the relocation efforts and monitoring efforts should be submitted to the California Department of Fish and Game.
- Conduct a preconstruction survey, 30 days prior to ground disturbance and after the passive relocation procedure has been completed, for burrowing owls prior to any ground disturbance. If burrowing owls are detected on site, no disturbance should occur within 50 m (160 ft) of occupied burrows during the non-breeding season (September 1 – January 31) or within 75 meters (250 ft) during the breeding season (February 1 – August 31).

[Mitigation Measure **BIO-5** - Grading/Planning]

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**BIO-6:** Environmental Awareness Program. The developer shall prepare, submit for review and obtain approval of a letter agreeing to adhere to the following requirements and to include in any construction contracts/subcontracts a requirement that project contractors adhere to the following requirements:

- f) Developer shall prepare, submit and obtain approval of a worker environmental awareness program that includes the penalties associated with violation of any of the resource protection laws governing the resources on the project site.
- g) The program shall specifically include a handout detailing basic biology of the desert tortoise threats to their survival, and specific actions to be (or not to be) taken on the job site.
- h) The handout also shall include a Signed Authorization page whereby the person being trained acknowledges having been trained and accepts the conditions of work onsite relating to these species.
- i) Intentional killing or collection of either plants or wildlife at construction sites is prohibited. Discharging of firearms is prohibited on construction sites.
- j) Only agency-approved pesticides, herbicides, fertilizers, dust suppressants, or other potentially harmful materials shall be applied within the construction area, in accordance with relevant state and federal regulations.

[Mitigation Measure **BIO-6** - Grading/Planning]

**BIO-7:** Desert Tortoise Habitat-loss Mitigation. The Developer shall secure a letter from CDFG indicating that a "Take" permit is not required to mitigate loss of Desert Tortoise habitat. If a "Take" permit is required by CDFG, the developer shall fully comply with mitigation measures as required by CDFG [Mitigation Measure **BIO-7** - Grading/ Planning]

**BIO-8:** Desert Tortoise Pre-grading Mitigation. The developer shall prepare, submit for review and obtain approval of a letter agreeing to adhere to the following requirements: Developer shall employ the following desert tortoise protection measures:

- h) Install permanent tortoise-proof fencing along the perimeter of any potential areas of disturbance, prior to disturbance, to prevent tortoises from wandering onto the site. Proposed disturbance areas should be surveyed by a qualified tortoise surveyor using 5-meter clearance surveys prior to fence installation. A second clearance survey should be conducted immediately after the fence is installed to ensure there are no tortoises within the work area. Tortoise fencing consists of 1-inch wide by 2-inch tall hardware cloth that can also be permanently attached to any permanent chain-link fence to prevent adult and juvenile tortoises from entering the project site. Tortoise fencing shall be buried at least 12-inches below ground and 24-inches above ground. Installation guidelines are found at: ([http://www.fws.gov/ventura/speciesinfo/protocols\\_guidelines/](http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/); USFWS, 2005).
  - i) Provide a trash abatement program with sealed trash containers on site to prevent unwanted tortoise predators such as ravens and coyotes.
  - j) Provide biological construction monitoring during the installation of the tortoise fencing.
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- k) Vehicular speeds shall be limited to 15 miles per hour on all project related access roads and work areas. Utilize existing roads, whenever possible, to minimize disturbance to potential tortoise habitat.
- l) Conduct 5-meter tortoise clearance surveys along any new or existing dirt access roads that will be used during the construction phase to identify areas of potential avoidance or areas where realignment of proposed access roads is preferred to minimize impacts.
- m) Provide a post-construction biological report of the results of the clearance surveys and biological monitoring efforts within 90 days to the resource agencies which documents any tortoise encounters and mitigation measures taken.
- n) Submit a California Natural Diversity Database (CNDDDB) form for any tortoises, carcasses and any other sensitive species encountered in order to provide the resource agency personnel and biological consultants with a better understanding of tortoise in this area.

[Mitigation Measure **BIO-8** - Grading/ Planning]

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## **GREENHOUSE GAS EMISSIONS**

**GHG-1** GHG/Construction Mitigation. The developer shall submit for review and approval to County Planning a letter agreeing to include the following as conditions of all construction contracts/subcontracts to reduce impacts to GHG:

- a) Select the construction equipment used on site based on low emissions factors and high energy efficiency. All diesel/gasoline-powered construction equipment shall be replaced, where possible, with equivalent electric or CNG equipment.
  - b) Ensure that construction grading plans include a statement that all construction equipment will be tuned and maintained in accordance with the manufacturer's specifications.
  - c) Confirm that the construction grading plans include a statement that all construction equipment (including construction vehicles and electric generators) shall be shut off by work crews when not in use and shall not idle for more than five minutes. During smog season (May through October), the overall length of the construction period shall be extended in order to decrease the size of the area prepared each day. This will minimize vehicles and equipment operating at the same time.
  - d) Use low-sulfur fuel for stationary equipment. (MDAQMD Rule 431).
  - e) Schedule construction activities so as to not interfere with peak-hour traffic and minimize obstruction of through traffic lanes adjacent to the site. Queuing of trucks on and off site shall be firmly discouraged and not scheduled. A flagperson shall be retained to maintain safety adjacent to existing roadways.
  - f) Comply with MDAQMD Rule 1113 on the use or architectural coatings. Emissions associated with architectural coatings will be reduced by complying with these rules and regulations, which include using pre-coated/natural colored building materials, water-based or low volatile organic compound (VOC) coating, and coating transfer or spray equipment with high transfer efficiency.
  - g) Recycle and reuse construction and demolition waste (e.g. soil, vegetation, concrete, lumber, metal, and cardboard) in accordance with the policies and procedures of County Solid Waste Management.
  - h) The construction contractor shall support and encourage ridesharing and transit incentives for the construction crew and educate all construction workers about the required waste reduction and the availability of recycling services.
- [Mitigation Measure **GHG-1** - Grading/Planning]

## **NOISE**

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

- a) Noise levels of any project use or activity shall be maintained at or below adopted County noise standards (SBCC 83.01.080). The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
  - b) Exterior construction activities shall be limited between 7 a.m. and 7 p.m. There shall be no exterior construction activities on Sundays or National Holidays.
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- c) Interior construction activities may occur on any day and any time provided they comply with the County noise standards. (SBCC 83.01.080).
  - d) Construction equipment shall be muffled per manufacturer's specifications. Electrically powered equipment shall be used instead of pneumatic or internal combustion powered equipment, where feasible.
  - e) All stationary construction equipment shall be placed in a manner so that emitted noise is directed away from sensitive receptors nearest the project site.  
[Mitigation Measure **N-1** - Grading/Planning]
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## **GENERAL REFERENCES**

- Arrow Engineering Services Inc. (AESI). 2011. Preliminary On-Site/Off-Site Hydrology Study for Solar Electric Solutions, LLC for a 9 MW Solar PV Electric Facility (SEPV9). (December).
- Arrow Engineering Services Inc. (AESI). 2011. Preliminary Water Quality Management Plan (WQMP) for Compliance with State Water Resources Control Board 9 MW Solar PV Electricity Generation Facility SEPV-09 (December).
- Federal Emergency Management Agency Flood Insurance Rate Map and Flood Boundary Map.
- Integrated Resource Management (IRM). 2010. Water Supply Assessment for SEPV9, LLC, Solar Electric Solutions, LLC San Bernardino County, California
- LSA Associates, 2010. Cultural Resources Assessment (November) (*Not Available For Public Review*).
- Mojave Desert Air Quality Management District (MDAQMD), 2009, California Environmental Quality Act (CEQA) and Federal Conformity Guidelines.
- Phoenix Ecological Consulting [PEC] 2011. Habitat Assessment and Focused Desert Tortoise, Burrowing Owl Protocol Presence / Absence Surveys and Rare Plant Surveys for a Proposed Photovoltaic Project San Bernardino County, California (April).
- San Bernardino County General Plan (Available online at [http://www.co.san-bernardino.ca.us/landuseservices/general\\_plan/Default.asp](http://www.co.san-bernardino.ca.us/landuseservices/general_plan/Default.asp))
- San Bernardino County Development Code (Available online at <http://www.co.san-bernardino.ca.us/landuseservices/DevCode/Default.asp>)
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